Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products

PRODUCT ASSESSMENT REPORT OF A BIOCIDAL PRODUCT FAMILY FOR UNION AUTHORISATION APPLICATIONS

(submitted by the evaluating Competent Authority)

Hydrogen Peroxide Family 1

Product type(s) 1, 2, 3 and 4

Hydrogen peroxide as included in the Union list of approved active substances

Case Number in R4BP: BC-DY029028-18

Evaluating Competent Authority: Latvia

Date: 07/10/2020

Table of Contents

1 CONCLUSION

The outcome of the assessment for the biocidal product family Hydrogen Peroxide Family 1 is specified in the BPC opinion following discussions at the BPC-35 meeting of the Biocidal Products Committee (BPC). The BPC opinion is available from the ECHA website.

2 ASSESSMENT REPORT

2.1 Summary of the product assessment

2.1.1 Administrative information

2.1.1.1 Identifier of the product / product family

			Product Type(s)			
Identifier	**Trade Name**	**Country (if relevant)**	**PT1**	**PT2**	**PT3**	**PT4**
Meta-SPC 1 (a)	Klercide Sporicidal Low Residue Peroxide	All EEA countries (Union authorisation)		Y		
Meta-SPC 1 (a)	Klerwipe Sporicidal Low Residue Peroxide	All EEA countries (Union authorisation)		Y		
Meta-SPC 1 (a)	ANIOS H_2O_2 6% IP STERILE	All EEA countries (Union authorisation)		Y		
Meta-SPC 2 (a)	Drysan Oxy	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 3 (a)	Oxypak D	All EEA countries (Union authorisation)				Y
Meta-SPC 3 (a)	Oxypak S	All EEA countries (Union authorisation)				Y
Meta-SPC 3 (a)	Oxypak S10	All EEA countries (Union authorisation)				Y
Meta-SPC 4 (b)	OxyFoam Plus	All EEA countries (Union authorisation)			Y	
Meta-SPC 4 (b)	Predip PLUS	All EEA countries (Union authorisation)			Y	
Meta-SPC 4 (b)	MEPA Foampro D	All EEA countries (Union authorisation)			Y	

			Product Type(s)			
Identifier	**Trade Name**	**Country (if relevant)**	**PT1**	**PT2**	**PT3**	**PT4**
Meta-SPC 5 (b)	Incidin OxyFoam	All EEA countries (Union authorisation)		Y		
Meta-SPC 5 (c)	Incidin OxyFoam S	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 5 (c)	Klercide Sporicidal Enhanced Peroxide	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 5 (c)	KitchenPro Oxy Foam S	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 6 (a)	OxyDes Rapid	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 7 (a)	Incidin OxyConcentrate	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 7 (a)	UltraSan Floor	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 7 (b)	Incidin OxyConcentrate FF	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 7 (b)	KitchenPro Oxy Des Super Concentrate	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 7 (b)	CidalSan Large Area	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 8 (a)	DrySan Oxy Wipes	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 8 (a)	Incidin OxyWipe	All EEA countries		Y		Y

			Product Type(s)			
Identifier	**Trade Name**	**Country (if relevant)**	**PT1**	**PT2**	**PT3**	**PT4**
		(Union authorisation)				
Meta-SPC 9 (a)	KitchenPro Oxy Des Concentrate	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 9 (a)	Incidin OxyPro	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 9 (b)	Oasis Pro Oxy Des	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 9 (b)	Maxx Oxy Des 2	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 10 (a)	Manosan Oxy	All EEA countries (Union authorisation)	Y			
Meta-SPC 11 (c)	Klerwipe Sporicidal Enhanced Peroxide	All EEA countries (Union authorisation)		Y		
Meta-SPC 11 (d)	Incidin OxyWipe S	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 11 (d)	KitchenPro OxyWipes S	All EEA countries (Union authorisation)		Y		Y
Meta-SPC 12 (a)	OxyDes Maxi Wipes	All EEA countries (Union authorisation)		Y		Y

For Meta-SPC 5, 7, 9 and 11, further sub-categorizations were done. In case of Meta-SPC 7 and 9, reference product for efficacy testing was chosen covering the entire Meta-SPC, therefore, also uses are not further sub-categorizations. For Meta-SPC 5 and 11, no reference product for efficacy testing was chosen, therefore for these two Meta-SPC, uses in SPC were further sub-categorised.
Uses also have been simplified and merged in agreement with Applicant, MS and ECHA in order to minimise administrative burden for MS during SPC linguistic review process. For Meta-SPC 5, uses #5.7 and #5.8, it is considered important to distinguish between non routine disinfection at a hospital or a medical practice.

2.1.1.2 Authorisation holder

Name and address of the authorisation holder	**Name**	Ecolab Deutschland GmbH
	Address	Ecolab-Allee 1, 40789, Monheim am Rhein, Germany
Pre-submission phase started on	29.07.2016	
Pre-submission phase concluded on	19.09.2016	
Authorisation number		
Date of the authorisation		
Expiry date of the authorisation		

2.1.1.3 Manufacturer(s) of the products of the family

Name of manufacturer	Ecolab Europe GmbH
Address of manufacturer	Richtistrasse 7, 8304 Walliselen, Switzerland
Location of manufacturing sites	

A.F.P. GmbH	A.F.P. GmbH Otto-Brenner-Straße 16, 21337 Lüneburg Germany
ACIDEKA	ACIDEKA S.A. Edificio Feria. Capuchinos de Basurto 6, 4a planta 48013 Bilbao. Bizkaia Spain
ADIEGO HNOS	Adiego CTRA DE VALENCIA, KM 5,900 50410 CUARTE DE HUERVA ZARAGOZA Spain
ALLIED PRODUCTS	Allied Hygiene Limited, Unit 11, Belvedere Industrial Estate Fishers Way, Belvedere Kent, DA17 6BS United Kingdom
ARKEMA GMBH	Arkema GmbH Morschheimer Strasse 19 D-67292 Krichheimbolanden Germany
AZELIS DENMARK	Lundtoftegårdsvej 95 2800 Kgs. Lyngby Denmark
BELINKA-LJUBLJANA	Belinka Zasavska Cesta 95 1001 Ljubljana Slovenija
Bentus Laboratories Ltd	BENTUS LABORATORIES LTD. RUSSIA, 105005, MOSCOW, RADIO STREET, 24 BLD.1, RUSSIA
BIO_PRODUCTIONS Ltd Inc STAPRO	BIO PRODUCTIONS, 72 VICTORIA ROAD, VICTORIA INDUSTRIAL ESTATE, BURGESS HILL, WEST SUSSEX, RH15 9LH UNITED KINGDOM
BIOXAL SA	Route des Varennes - Secteur A – BP 30072 71103 Chalon sur Saône Cedex FRANCE
BORES S.R.L.	Bores Srl Via Pioppa, 179 44020 Pontegradella Italy

BRENNTAG Ardennes	BRENNTAG ARDENNES Route de Tournes CD n 2 FR-08090 Cliron France
BRENNTAG CEE - GUNTRAMSDORF	Brenntag CEE GmbH Mixing / Blending Bahnstr. 13 A-2353 Guntramsdorf Austria
BRENNTAG Duisburg	Brenntag GmbH Humboldtring 15 45472 Muehlheim Germany
BRENNTAG Glauchau	Brenntag GmbH Humboldtring 15 45472 Muehlheim Germany
BRENNTAG Hamburg	Brenntag GmbH Humboldtring 15 45472 Muehlheim Germany
BRENNTAG Heilbronn	Brenntag GmbH Humboldtring 15 45472 Muehlheim Germany
BRENNTAG Kaiserslautern	Brenntag Merkurstr. 47 67663 Kaiserslautern Germany
BRENNTAG Kleinkarlbach	Brenntag GmbH Humboldtring 15 45472 Muehlheim Germany
BRENNTAG Lohfelden	Brenntag GmbH Humboldtring 15 45472 Muehlheim Germany
BRENNTAG Nordic HASLEV	Høsten Teglværksvej 47, 4690 Haslev, Denmark
BRENNTAG Nordic VEJLE	Brenntag Nordic Vivaa Denmark
BRENNTAG Normandy	Brenntag Normandie 12 Sente des Jumelles - BP 11 76710 Montville France
BRENNTAG PL - Zgierz	ul. Kwasowa 5 95-100 Zgierz Poland
BRENNTAG Quimica - Madrid	Brenntag Quimica S.A. - Madrid Calle Gutemberg nº 22, Polig. Industrial El Lomo 28906 Getaf (Madrid), Spain
BRENNTAG Schweizerhall	Brenntag Schweizerhall AG Elsaesserstr. 231 CH-4056 Basel Switzerland
Budich International GmbH	Budich International GmbH Dieselstrasse 10 32120 Hiddenhause Germany
Caldic Deutschlan Chemie B.V	Caldic Deutschland GmbH & Co.Kg Am Karlshof 10 D 40231 Duesseldorf GERMANY
CARBON GROUP	The Carbon Group Ringaskiddy County Cork Ireland
COLEP BAD SCHMIEDEBERG	Colep CCL Bad Schmiedeberg GmbH Kemberger Str. 3 06905 Bad Schmiedeberg Germany
COMERCIAL FARMACEUTICA CASTEL: LANA, S.A.	COMERCIAL FARMACEUTICA CASTEL: LANA, S.A. "COFARCAS" Condado de Treviño, 46 P.I. Villalonquejar 09080 – BURGOS Spain

COMERCIAL GODO	COMERCIAL GODO França, 13 08700 – IGUALADA (BARCELONA) Spain
COURTOIS SARL	ZA SOUS LE BEER Route de Pacy 27730 BUEIL France
DAN MOR (DR WIPE)	DAN-MOR Natural Products and Chemicals Ltd. Or Akiva Industrial Zone 30600, Israel
Denteck BV	Heliumstraat 8, 2718 SL Zoetermeer ZOETERMEER Netherlands
DETERGENTS BURGUERA	DETERGENTS BURGUERA, S.L. Joan Ballester, 50 07630 – CAMPOS (ILLES BALEARES) Spain
ECL Biebesheim	NLC Biebesheim Justus-von-Liebig-Straße 11, 64584 Biebesheim am Rhein, Germany
ECL Celra	NALCO - Celra C/ Tramuntana s/n Poligona Industrial Celra 17460 Girona Spain
ECL Châlons	AVENUE DU GENERAL PATTON 51000 CHALONS EN CHAMPAGNE, FRANCE
ECL Cisterna	Nalco Italiana Manufacturing Srl. Via Ninfina II Cisterna di Latina, Italy 04012
ECL Fawley	NLC Fawley Cadland Road, Hythe, Southampton, Hampshire SO45 3NP, United Kingdom
ECL Leeds	ECOLAB Lotherton Way Garforth Leeds LS25 2JY United Kingdom
ECL Mandra	25TH KM OLD NATIONAL ROAD OF ATHENS TO THIVA, GR 19600, Greece
ECL Maribor	Vajngerlova Ulica 4, 2000 Maribor, Slovenia
ECL MICROTEK BV	MICROTEK MEDICAL B.V. GESINKKAMPSTRAAT 19, 7051 HR, VARSSEVELD, THE NETHERLANDS
ECL MICROTEK MOSTA	SORBONNE CENTRE, F20 MOSTA TECHNOPARK, MOSTA MST 3000, MALTA
ECL Mullingar	Ecolab Ltd. Forrest Park Zone C Mullingar Industrial Estate Mullingar Co. Westmeath Ireland
ECL Nieuwegein	BRUGWAL 11 A, 3432 NZ NIEUWEGEIN THE NETHERLANDS
ECL Rovigo Esofor	Esoform SRL., Laborat. Chimico Farmaceutico Viale del Lavoro 10, 45100 Rovigo (RO), Italy
ECL Rozzano	Via A. Grandi, 20089 Rozzano MI, Italy
ECL Tesjoki	NLC Tesjoki Kivikummuntie 1, Tesjoki, 07955, Finland

ECL Tessenderlo	Havenlaan 4, Ravenshout 4 210, B-3980 Tessenderlo, Belgium
ECL Weavergate	Site Nalco Manufacturing Limited, Winnington Avenue, Northwich Cheshire CW8 3AA, UK Postal Address PO Box 11, Winnington Avenue, Northwich, Cheshire CW8 4DX
Ecolab Ltd Baglan/Swindon	Plot 7a Baglan Energy Park, Brunel way, Baglan, Port Talbot SA11 2GA, United Kingdom
EXTRUPLAST	ZI Fief du Passage 56 rue Robert Geffré 17000 La Rochelle France
Ferdinand Eimermacher GmbH &Co.KG	Ferdinand Eimermacher GmbH & Co. KG Westring 24 48356 Nordwalde Germany
F.E.L.T.	BP 64 10 rue du Vertuquet 59531 NEUVILLE EN FERRAIN France
GALLOWS GREEN SERVICES LTD	Gallows Green Services Ltd. Cod Beck Mill Industrial Estate Dalton Lane Thirsk North Yorkshire YO7 3HR United Kingdom
GERDISA GERMAN RGUEZ DROGAS IND	Gerdisa Polígono Industrial Miralcampo, C. Pintura n.-4, parc.37 Azuqueca de Henares 19200, Guadalajara, Spain
GIRASOL NATURAL PRODUCTS BV	Girasol Natural Products B.V. De Veldoven 12-14 3342 GR Hendrik-Ido-Ambacht, The Netherlands
HENKEL ENGELS	Henkel Engels 413116 Engels Prospekt Stroi Russia
Imeco GmbH & Co KG	Boschstraße 5 D-63768 Hösbach Germany
INNOVATE GmbH	Innovate GmbH Am Hohen Stein 11 06618 Naumburg Gemany
INTERFILL LLC-TOSNO	INTERFILL LLC 187000, Moskovskoye shosse 1 Tosno - Leningradskaya Russia
JODEL - PRODUCTOS QUIMICOS	Jodel Zona Industrial 2050 Aveiras de Cima Portugal
Kleinmann GmbH	Kleinmann GmbH Am Trieb 13 72820 Sonnenbühl Sonnenbühl Germany
KOMPAK NEDERLAND BV	KOMPAK Bavel 0031-161-433651 Nederlands
La Antigua Lavandera SL	LA ANTIGUA LAVANDERA, S.L. Ctra. Antigua Sevilla-Alcalá Km.1,5 (SE-410) Apartado de Correos, 58 41500 ALCALA DE GUADAIRA SEVILLA Spain

LABORATOIRES ANIOS	Pavé du moulin 59260 Lille-Hellemmes FRANCE
LABORATOIRES ANIOS	3330 Rue de Lille 59262 Sainghin-en-Mélantois FRANCE
LICHTENHELDT GmbH	Lichtenheldt Industriestrasse 7-9 23812 Wahlstedt Germany
LONZA	Lonza GmbH Morianstr.32 42103 Wuppertal Germany
McBride SA	Polígon Industrial L'Illa C / Ramon Esteve, 20- 22 08650 Sallent Spain
Multifill B.V.	Multifill BV Constructieweg 25-A 3641 SB Mijdrecht The Netherlands
NOPA NORDISK PARFUMERIVARE	Nordisk Parfumerivarefabrik A/S Hvedevej 2-22 DK-8900 Randers Denmark
PAL INTERNATIONAL LTD	Pal International Ltd. Sandhurst Street, Oadby, Leicester United Kingdom
PLANOL GmbH	Planol GmbH Maybachstr. 17 63456 Hanau Germany
PLUM A/S	Plum A/S Frederik Plums Vej 2 DK 5610 Assens Denmark
PRODUCTOS LC L CORBERANA	PRODUCTOS LA CORBERANA, S.L. Crta. Corbera – Polinyá, s/nº 46612 - CORBERA (VALENCIA) Spain
PROTON GROUP LTD	THE PROTON GROUP LTD Ripley Drive, Normanton Industrial Estate, Wakefield, WF6 1QT, United Kingdom
QUIMICAS MORALES	QUIMICAS MORALES, S.L. Misiones, 11 - Urb. El Sebadal 05005 – LAS PALMAS DE GRAN CANARIA Spain
RNM PRODUCTOS QUIMICOS	RNM - Produtos Quimicos, Lda Rua da Fabrica, 123, Segade, 4765-080 Carreira Vila Nova de Famalicao Portugal
ROQUETTE & BARENTZ	Roquette Freres Route De La Gorgue F-62136 Lestrem France
RUTPEN	RUTPEN LTD MEMBURY AIRFIELD LAMBOURN BERKS RG16 7TJ UNITED KINGDOM
SOLIMIX	Solimix Montseny 17-19 Pol. Ind. Sant Pere Molanta 08799 Olerdola Barcelona SPAIN
STAUB & CO - SILBERMAN GMBH Gablingen	Staub & Co. – Silbermann GmbH D-86456 Gablingen, Industriestraße 3 Germany
STOCKMEIER CHEMIE EILENBER	Stockmeier Chemie Eilenburg GmbH & Co. KG Gustav-Adolf-Ring 5 04838 Eilenburg Germany

SYNERLOGIC BV (IN2FOOD)	Synerlogic BV afd. L.J. Costerstraat 5 6827 ARNHEM Th Netherlands
Univar Ltd,	Argyle House, Epsom Avenue, Wilmslow. SK9 3RN United Kingdom
UNIVAR SPA	Univar SPA Via Caldera 21 20-153 Milano Italy
VAN DAM BODEGRAVEN	van Dam Bodegraven B.V Postbus 48 NL 2410 AA Bodegraven The Netherlands
Laboratoires Prodene Klint	Rue Denis Papin, 2 Z.I. Mitry Compans F-77290 Mitry Mory France
Simagec	Z.I. de Rousset / Peynier, 54 Avenue de la Plaine, 13790 Rousset, France

2.1.1.4 Manufacturer(s) of the active substance(s)

Active substance	Hydrogen Peroxide
Name of manufacturer	Evonik Degussa Antwerpen NV
Address of manufacturer	Evonik Degussa Antwerpen NV Tijsmanstunnel West 2040 Antwerpen Belgium
Location of manufacturing sites	Evonik Degussa Antwerpen NV Tijsmanstunnel West 2040 Antwerpen Belgium

Active substance	Hydrogen Peroxide
Name of manufacturer	Evonik Peroxid GmbH
Address of manufacturer	Evonik Degussa GmbH Untere Kanalstr. 3 79618 Rheinfelden Germany
Location of manufacturing sites	Evonik Degussa GmbH Untere Kanalstr. 3 79618 Rheinfelden Germany

Active substance	Hydrogen Peroxide
Name of manufacturer	Evonik Degussa GmbH
Address of manufacturer	Evonik Peroxid GmbH Industriestraβe 1 9721 Weiβenstein Austria
Location of manufacturing sites	Evonik Peroxid GmbH Industriestraβe 1 9721 Weiβenstein Austria

Active substance	Hydrogen Peroxide
Name of manufacturer	Evonik Peroxide Netherlands BV
Address of manufacturer	Evonik Peroxide Netherlands BV Oosterhorn 14 9936 HD Farmsum Netherlands
Location of manufacturing sites	Evonik Peroxide Netherlands BV Oosterhorn 14 9936 HD Farmsum Netherlands

Active substance	Hydrogen Peroxide
Name of manufacturer	Belinka Perkemija D.O.O
Address of manufacturer	Belinka Perkemija D.O.O Zasavska cesta 95 1231 Ljubljana-Črnuče Slovenia
Location of manufacturing sites	Belinka Perkemija D.O.O Zasavska cesta 95 1231 Ljubljana-Črnuče Slovenia

Active substance	Hydrogen Peroxide
Name of manufacturer	Solvay Chemie SA
Address of manufacturer	Solvay Chemie SA Rue Solvay 39 B-5190 Jemeppe-sur-Sambre Belgium
Location of manufacturing sites	Solvay Chemie SA Rue Solvay 39 B-5190 Jemeppe-sur-Sambre Belgium

Active substance	Hydrogen Peroxide
Name of manufacturer	Solvay Chimica Italia S.p.A.
Address of manufacturer	Solvay Chimica Italia S.p.A Via Piave 6 I-57013 Rosignano Solvay LI Italy
Location of manufacturing sites	Solvay Chimica Italia S.p.A Via Piave 6 I-57013 Rosignano Solvay LI Italy

Active substance	Hydrogen Peroxide
Name of manufacturer	Solvay Chemicals GmbH
Address of manufacturer	Solvay Chemicals GmbH Köthensche Strasse 1-3 D-06406 Bernburg Germany
Location of manufacturing sites	Solvay Chemicals GmbH Köthensche Strasse 1-3 D-06406 Bernburg Germany

Active substance	Hydrogen Peroxide
Name of manufacturer	Solvay Interox Limited
Address of manufacturer	Solvay Interox Limited Baronet Road WA4 6HB Warrington Cheshire United Kingdom
Location of manufacturing sites	Solvay Interox Limited Baronet Road WA4 6HB Warrington Cheshire United Kingdom

Active substance	Hydrogen Peroxide
Name of manufacturer	Solvay Chemicals Finland OY
Address of manufacturer	Solvay Chemicals Finland OY Yrjonojantie 2 45910 Voikkaa Finland
Location of manufacturing sites	Solvay Chemicals Finland OY Yrjonojantie 2 45910 Voikkaa Finland

Active substance	Hydrogen Peroxide
Name of manufacturer	Solvay Interox Produtos Peroxidados SA
Address of manufacturer	Solvay Interox Produtos Peroxidados SA Rua Eng. Clement Dumoulin P-2625-106 Povoa de Santa Iria Portugal
Location of manufacturing sites	Solvay Interox Produtos Peroxidados SA Rua Eng. Clement Dumoulin P-2625-106 Povoa de Santa Iria Portugal

Active substance	Hydrogen Peroxide
Name of manufacturer	Kemira Rotterdam BV
Address of manufacturer	Kemira Rotterdam BV Moezelweg 151 3198 LS Europoort Rotterdam Netherlands
Location of manufacturing sites	Kemira Rotterdam BV Moezelweg 151 3198 LS Europoort Rotterdam Netherlands

Active substance	Hydrogen Peroxide
Name of manufacturer	Kemira Chemicals Oy
Address of manufacturer	Kemira Chemical Oy Typpitie PL 171 90101 Oulu Finland
Location of manufacturing sites	Kemira Chemical Oy Typpitie PL 171 90101 Oulu Finland

Active substance	Hydrogen Peroxide
Name of manufacturer	Kemira Kemi AB
Address of manufacturer	Kemira Kemi AB Industrigatan 83 25109 Helsingborg Sweden
Location of manufacturing sites	Kemira Kemi AB Industrigatan 83 25109 Helsingborg Sweden

Active substance	Hydrogen Peroxide
Name of manufacturer	ARKEMA France – USINE DE JARRIE
Address of manufacturer	ARKEMA France – USINE DE JARRIE Route National 85, BP 1 38560 JARRIE France
Location of manufacturing sites	ARKEMA France – USINE DE JARRIE Route National 85, BP 1 38560 JARRIE France

Active substance	Hydrogen Peroxide
Name of manufacturer	ARKEMA GMBH – NIEDERLASSUNG LEUNA
Address of manufacturer	ARKEMA GMBH – NIEDERLASSUNG LEUNA Am Haupttor, Bau 2410 06237 LEUNA Germany
Location of manufacturing sites	ARKEMA GMBH – NIEDERLASSUNG LEUNA Am Haupttor, Bau 2410 06237 LEUNA Germany

Active substance	Hydrogen Peroxide
Name of manufacturer	Ecolab Europe GmbH
Address of manufacturer	Ecolab-Allee 1, 40789 Monheim am Rhein Germany
Location of manufacturing sites	Ecolab-Allee 1, 40789 Monheim am Rhein Germany

2.1.2 Product family composition and formulation

NB: the full composition of the product according to Annex III Title 1 should be provided in the confidential annex.

Does the product have the same identity and composition as the product evaluated in connection with the approval for listing of the active substance(s) on the Union list of approved active substances under Regulation No. 528/2012?

Yes ☐
No ☒

2.1.2.1 Identity of the active substance

Main constituent(s)	
ISO name	Hydrogen Peroxide
IUPAC or EC name	Hydrogen Peroxide
EC number	231-765-0
CAS number	7722-84-1
Index number in Annex VI of CLP	008-003-00-9
Minimum purity / content	350 - < 700 g/kg (35 - < 70 % by weight)
Structural formula	HO-OH

[redacted]

[redacted]

2.1.2.2 Candidate(s) for substitution

Hydrogen peroxide is not a candidate for substitution.

2.1.2.3 Qualitative and quantitative information on the composition of the biocidal product

Not applicable

2.1.2.4 Qualitative and quantitative information on the composition of the biocidal product family

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
Hydrogen peroxide[1]	Hydrogen peroxide	Active substance	7722-84-1	231-765-0	1	36.75
n-propanol	n-propanol	Non-active substance	71-23-8	200-746-9	0	17.50
Citric acid monohydrate	2-hydroxypropane-1,2,3-tricarboxylic acid	Non-active substance	5949-29-1	201-069-1	0	0.90
Phenoxyethanol	2-Phenoxyethanol	Non-active substance	122-99-6	204-589-7	0	0.90
Capryleth-9 Carboxylic acid (mixture of alkyl ether carboxylic acid)	Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(octyloxy)- (4-11 EO)	Non-active substance	53563-70-5	not assigned	0	2.15
Hexeth-4 Carboxylic Acid (mixture of alkyl ether carboxylic acid)	Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(hexyloxy)- (3 EO)	Non-active substance	105391-15-9	not assigned	0	0.62
Sodium lauryl Sulphate	Sodium dodecyl sulphate	Non-active substance	151-21-3	205-788-1	0	3.88
Sodium caprylolglutamate	Sodium;(4S)-4-amino-5-hydroxy-5-oxopentanoate	Non-active substance	68187-32-6	269-087-2	0	2.00
Sulfuric acid, mono-C12-14-	Sulfuric acid. Mono-C12-14-	Non-active substance	90583-11-2	292-209-0	0	1.12

[1] [redacted]

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
alkyl esters, ammonium salts (Texapon ALS)	alkyl esters. ammonium salts					
Phosphoric acid	Orthophosphoric acid	Non-active substance	7664-38-2	231-633-2	0	1.50
Nitric acid	Nitric acid	Non-active substance	7697-37-2	231-714-2	0	3.71
Alcohol EO phosphate ester	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates	Non-active substance	68130-47-2	not indicated	0	14.625
Alkylpolyglycoside	(3R,4S,5S,6R)-2-decoxy-6-(hydroxymethyl)oxane-3,4,5-triol	Non-active substance	68515-73-1	500-220-1	0	6.35
Alcohols, C10-C16 ethoxylated propoxylated (Dehydol 980)	Alcohols, C10-C16 ethoxylated propoxylated	Non-active substance	69227-22-1	not indicated	0	3.00
Other co-formulants		Non-active substance			Please see Confidential Annex	

Hydrogen Peroxide Family 1, consists of number of products belonging to MAIN GROUP 1: Disinfectants, according to the BPR legal text. All formulations included in the family fulfil conditions of similar use and are proposed for use in PTs 1, 2, 3 and 4 (Human hygiene biocidal products, Products for surface disinfection for non-food contact surfaces, Veterinary hygiene biocidal products, Products for surface disinfection for food contact surfaces). Biocidal products from Hydrogen Peroxide Family 1 are multi PT's formulations which ensures that link of similar use is maintained between products in case of PT1 and PT3 formulations that are in addition foreseen for human and veterinary hygiene. The Hydrogen Peroxide product family has been built into 12 Meta groups. Each Meta group comprises a single product or multiple products each with the same (or very similar) formulations. It is important to note that Biocidal Products covered by the family have been grouped using newest guidance where it is indicated that classification of products belonging to one Meta group should always be identical. Ranges of Biocidal Product Family have been set up using classification criteria. When added into selected Meta level, any additional product will always have the same classification as an existing formulation.

2.1.2.5 Information on technical equivalence

All sources of Hydrogen Peroxide included in the Biocidal Product Family comply with Technical Equivalence requirement. Hydrogen Peroxide used complies with the minimum

purity of 995 g/kg (99.5 weight %) as set by Commission Implementing Regulation (EU) No 2015/1730 approving Hydrogen Peroxide as an existing active substance.

2.1.2.6 Information on the substance(s) of concern

According to BPR requirements, substances of concern included in the Biocidal product family needs to be identified and take them into consideration in risk assessment part of the dossier and physical chemistry section.

Please see the confidential annex for further details.

2.1.2.7 Type of formulation

Identifier	Trade Name	Formulation Type	CIPAC Code
Meta-SPC 1 (a)	Klercide Sporicidal Low Residue Peroxide	Any other liquid	AL
Meta-SPC 1 (a)	Klerwipe Sporicidal Low Residue Peroxide	Any other liquid	AL
Meta-SPC 1 (a)	ANIOS H2O2 6% IP STERILE	Any other liquid	AL
Meta-SPC 2 (a)	Drysan Oxy	Any other liquid	AL
Meta-SPC 3 (a)	Oxypak D	Any other liquid	AL
Meta-SPC 3 (a)	Oxypak S	Any other liquid	AL
Meta-SPC 3 (a)	Oxypak S10	Any other liquid	AL
Meta-SPC 4 (b)	OxyFoam Plus	Any other liquid	AL
Meta-SPC 4 (b)	Predip PLUS	Any other liquid	AL
Meta-SPC 4 (b)	MEPA Foampro D	Any other liquid	AL
Meta-SPC 5 (b)	Incidin OxyFoam	Any other liquid	AL
Meta-SPC 5 (c)	Incidin OxyFoam S	Any other liquid	AL
Meta-SPC 5 (c)	Klercide Sporicidal Enhanced Peroxide	Any other liquid	AL
Meta-SPC 5 (c)	KitchenPro Oxy Foam S	Any other liquid	AL
Meta-SPC 6 (a)	OxyDes Rapid	Any other liquid	AL
Meta-SPC 7 (a)	Incidin OxyConcentrate	Soluble concentrate	SL

Identifier	Trade Name	Formulation Type	CIPAC Code
Meta-SPC 7 (a)	UltraSan Floor	Soluble concentrate	SL
Meta-SPC 7 (b)	Incidin OxyConcentrate FF	Soluble concentrate	SL
Meta-SPC 7 (b)	KitchenPro Oxy Des Super Concentrate	Soluble concentrate	SL
Meta-SPC 7 (b)	CidalSan Large Area	Soluble concentrate	SL
Meta-SPC 8 (a)	Drysan Oxy Wipes	Any other liquid	AL
Meta-SPC 8 (a)	Incidin OxyWipe	Any other liquid	AL
Meta-SPC 9 (a)	KitchenPro Oxy Des Concentrate	Soluble concentrate	SL
Meta-SPC 9 (a)	Incidin OxyPro	Soluble concentrate	SL
Meta-SPC 9 (b)	Oasis Pro Oxy Des	Soluble concentrate	SL
Meta-SPC 9 (b)	Maxx Oxy Des 2	Soluble concentrate	SL
Meta-SPC 10 (a)	Manosan Oxy	Water soluble gel	GW
Meta-SPC 11 (c)	Klerwipe Sporicidal Enhanced Peroxide	Any other liquid	AL
Meta-SPC 11 (d)	Incidin OxyWipe S	Any other liquid	AL
Meta-SPC 11 (d)	KitchenPro Oxy Wipes S	Any other liquid	AL
Meta-SPC 12 (a)	OxyDes Maxi Wipes	Any other liquid	AL

PART II - SECOND INFORMATION LEVEL - META SPC 1

2.1.3 Meta SPC 1 administrative information

2.1.3.1 Meta SPC identifier

Identification	META SPC 1

2.1.3.2 Suffix to the authorisation number

Number	1-1

2.1.3.3 Product type(s)

Product type(s)	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)

2.1.4 Meta SPC 1 composition

2.1.4.1 Qualitative and quantitative information on the composition of the meta SPC 1

Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**	
					Min	**Max**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	6	6.6

2.1.4.2 Type(s) of formulation of the meta SPC 1

AL - Any other liquid

2.1.5 Hazard and precautionary statements according to Regulation (EC) 1272/2008 of the meta SPC 1

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification	
Hazard category	Eye Irrit. 2
Hazard statement	H319: Causes serious eye irritation
Labelling	
Hazard Pictogram	
	GHS07: Exclamation mark
Signal words	Warning
Hazard statements	H319: Causes serious eye irritation
Precautionary statements	P264: Wash hands thoroughly after handling. P280: Wear eye protection/face protection. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313: If eye irritation persists: Get medical advice/attention.
Note	

2.1.6 Authorised use(s) of the META SPC 1

2.1.6.1 Use description

Table 1. Use # 1.1 – **Disinfection of life sciences cleanrooms by spraying using trigger sprayer and dry wipe**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses Bacterial spores
Field of use	Indoor Disinfection of small surfaces, materials and equipment in Life Sciences Cleanroom A - D and supporting environments (e.g. pharmaceutical industry).
Application method(s)	Spraying using trigger sprayer and dry wipe
Dilution (%)	Ready to use (RTU) product
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for spraying at 20^{0}C in clean conditions: – 15 min for bacteria and fungi;

	– 5 min for yeasts; – 60 min for viruses and bacterial spores. Contact times for spraying and wiping at 20^0C in clean conditions: – 5 min for bacteria, yeasts and fungi; – 60 min for viruses and bacterial spores. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 1-5L Light precluding PP+PE Spray bottle, 1-5L

2.1.6.1 Use-specific instructions for use

See general directions for use of Meta-SPC 1. For optimum results hold bottle upright and spray from a distance of 10 cm to 20 cm. Spray the product onto a dry wipe and wipe small surfaces such as worktops and equipment or spray the product onto the surface, wipe the surface with clean, dry wipe and let air dry. Always close the nozzle after use. Used wipes must be disposed in a closed container.

2.1.6.1 Use-specific risk mitigation measures

The use of eye protection during handling of the product is mandatory.

2.1.6.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 1.

2.1.6.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 1.

2.1.6.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 1.

2.1.6.2 Use description

Table 2. Use # 1.2 – **Disinfection of life sciences cleanrooms by mopping using flat mop and bucket**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses Spores (bacterial)
Field of use	Indoor

	Disinfection of floors in Life Sciences Cleanroom A - D and supporting environments (e.g. pharmaceutical industry).
Application method(s)	Mopping using mop and bucket
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 20 mL/m^2 Contact times for mopping at 20^{0}C in clean conditions: – 5 min for bacteria, yeasts and fungi; – 60 min for viruses and bacterial spores. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 1-5L

2.1.6.2 Use-specific instructions for use

See general directions for use of Meta-SPC 1. Apply to surfaces by mopping, and let air dry.

2.1.6.2 Use-specific risk mitigation measures

The use of eye protection during handling of the product is mandatory. Use of respiratory protective equipment (RPE) providing a protection factor of 10 is mandatory for professionals applying the product and for professional bystanders that are in the treated area. At least an air purifying respirator with helmet/hood/mask (TH1/TM1), or a half/full mask with combination filter gas/P2 is required (filter type (code letter, colour) to be specified by the authorisation holder within the product information). For repeated application or re-entry into the room, the professional needs to follow the same set of risk mitigation measures (i.e. RPE10) as for the first application in the room.

2.1.6.2 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 1.

2.1.6.2 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 1.

2.1.6.2 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 1.

2.1.6.3 Use description

Table 3. Use # 1.3 – **Disinfection of life sciences cleanrooms by wiping using impregnated RTU wipes**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)

Where relevant, an exact description of the authorised use	-
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses Bacterial spores
Field of use	Indoor Disinfection of small surfaces, materials and equipment in Life Sciences Cleanroom A - D and supporting environments (e.g. pharmaceutical industry).
Application method(s)	Wiping using impregnated RTU wipes
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponds to 10 mL/m^2) Contact times for wiping at 20^0C in clean conditions: – 5 min for bacteria, yeasts and fungi; – 60 min for viruses and bacterial spores. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bucket with 100 impregnated 45% polyester / 55% cellulose blend wipes (wipe size: 200x200 mm). Light precluding PP Pouch with 10-100 impregnated 45% polyester / 55% cellulose blend wipes (wipe size: 200x200 mm).

2.1.6.3 Use-specific instructions for use

See general directions for use of Meta-SPC 1.
After use of the product allow surface to air dry. Close container when not in use. Do not use wipes after dehydration. Used wipes must be disposed in a closed container.

2.1.6.3 Use-specific risk mitigation measures

Avoid hand to eye transfer.

2.1.6.3 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 1.

2.1.6.3 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 1.
Throw away the container when empty.

2.1.6.3 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 1.

2.1.6.4 Use description

Table 4. Use # 1.4 – **Disinfection of life sciences cleanrooms by mopping using impregnated RTU mop wipes**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses Bacterial spores
Field of use	Indoor Disinfection of floors in Life Sciences Cleanroom A - D and supporting environments (e.g. pharmaceutical industry).
Application method(s)	Mopping using impregnated RTU mop wipes
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponds to 10 mL/m^2) Contact time for mopping at 20^0C in clean conditions: – 5 min for bacteria, yeasts and fungi; – 60 min for viruses and bacterial spores. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bucket with 100 impregnated 45% polyester / 55% cellulose blend wipes (wipe size: 420x250 mm). Light precluding PP Pouch with 10-100 impregnated 45% polyester / 55% cellulose blend wipes (wipe size: 420x250 mm).

2.1.6.4 Use-specific instructions for use

See general directions for use of Meta-SPC 1.
After use of the product allow surface to air dry. Close container when not in use. Do not use wipes after dehydration. Used wipes must be disposed in a closed container.

2.1.6.4 Use-specific risk mitigation measures

Avoid hand to eye transfer.
Use of respiratory protective equipment (RPE) providing a protection factor of 10 is mandatory for professionals applying the product and for professional bystanders that are in the treated area. At least an air purifying respirator with helmet/hood/mask (TH1/TM1), or a half/full mask with combination filter gas/P2 is required (filter type (code letter, colour) to be specified by the authorisation holder within the product information). For repeated application or re-entry into the room, the professional needs to follow the same set of risk mitigation measures (i.e. RPE10) as for the first application in the room.

2.1.6.4 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 1.

2.1.6.4 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 1. Throw away the container when empty.

2.1.6.4 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 1.

2.1.7 General directions for use of the meta SPC 1

2.1.7.1 Instructions for use

See use-specific instructions for use of Meta-SPC 1. Always read the label or leaflet before use and follow all the instructions. Clean surface up front. Product should be applied to a clean dry surface. Wet surfaces completely. Do not rinse after use. Do not use on surfaces sensitive to oxidative agents such as marble, copper or brass.

2.1.7.2 Risk mitigation measures

See use-specific risk mitigation measures of Meta-SPC 1.

2.1.7.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENTIAL HEALTH EFFECTS

Eyes: Causes serious eye irritation.

Skin: Health injuries are not known or expected under normal use.

Ingestion: Health injuries are not known or expected under normal use.

Inhalation: Health injuries are not known or expected under normal use.

Chronic Exposure: Health injuries are not known or expected under normal use.

FIRST AID MEASURES

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

In case of skin contact: Rinse with plenty of water.

If swallowed: Rinse mouth. Get medical attention if symptoms occur.

If inhaled: Get medical attention if symptoms occur.

ENVIRONMENTAL EMERGENCY MEASURES

Do not allow contact with soil, surface or ground water.

Consider the provision of containment around storage vessels.

2.1.7.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging: Dispose of container in accordance with national regulations.

2.1.7.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Storage temperature: 0-35°C

Shelf life: 24 months

2.1.8 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 1

2.1.9 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Klercide Sporicidal Low Residue Peroxide Klerwipe Sporicidal Low Residue Peroxide ANIOS H2O2 6% IP STERILE				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	6

PART II - SECOND INFORMATION LEVEL - META SPC 2

2.1.10 Meta SPC 2 administrative information

2.1.10.1 Meta SPC identifier

Identification	META SPC 2

2.1.10.2 Suffix to the authorisation number

Number	1-2

2.1.10.3 Product type(s)

Product type(s)	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) PT04 - Food and feed area (Disinfectants)

2.1.11 Meta SPC 2 composition

2.1.11.1 Qualitative and quantitative information on the composition of the meta SPC 2

Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**	
					Min	**Max**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1	1

2.1.11.2 Type(s) of formulation of the meta SPC 2

AL - Any other liquid

2.1.12 Hazard and precautionary statements according to Regulation (EC) 1272/2008 of the meta SPC 2

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification	
Hazard category	Not classified
Hazard statement	
Labelling	
Hazard Pictogram	-
	-
Signal words	-
Hazard statements	-
Precautionary statements	-
Note	

2.1.13 Authorised use(s) of the META SPC 2

2.1.13.1 Use description

Table 5. Use # 2.1 – **Disinfection of small surfaces in industry (e.g. dining areas, bathrooms) by spraying using trigger sprayer and dry wipe and/or by mopping using flat mop and bucket**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Mopping: Bacteria, Yeasts Spraying + wiping: Bacteria; Yeasts, Fungi; Mycobacteria
Field of use	Indoor Disinfection of small and/or large surfaces in industry (e.g. dining areas, bathrooms).
Application method(s)	Spraying using trigger sprayer and dry wipe Mopping using mop and bucket Spraying using trigger sprayer and dry wipe and mopping using mop and bucket
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate for spraying: 10 mL/m^2 Application rate for mopping: 20 mL/m^2 Contact times for spraying and wiping, mopping at 20^{0}C in dirty conditions: – 5 min for bacteria and yeasts; – 15 min for fungi; – 60 min for mycobacteria. Application frequency: Spraying trigger sprayer: up to 10 times per day per room

	Mopping: up to 2 times per day per room Spraying trigger sprayer and mopping: 1 time per day per room.
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Container, 1-100L Light precluding HDPE Jerry can, 1-100L Light precluding HDPE IBC, 600-1000L Light precluding HDPE Drum, 60-220L Light precluding HDPE Bottle, 0.1-5L Light precluding HDPE; PE Spray bottle, 0.5-1L

2.1.13.1 Use-specific instructions for use

See general directions for use of Meta-SPC 2.

Spraying: For optimum results hold bottle upright and spray from a distance of 30 cm. Spray the product onto the surface, wait for 5 minutes and subsequently wipe the surface with clean, dry wipe or let air dry. Always close the nozzle after use. Used wipes must be disposed in a closed container.

Mopping: Remove excess water using dry floor mop. Fill the bucket with RTU product and mop across floor using floor mop, wait 5 minutes and subsequently wipe the surface with clean, dry floor mop or let air dry.

2.1.13.1 Use-specific risk mitigation measures

None
For spraying: The area of the surfaces to be disinfected (in m²) must not be larger than 1/10 of the room volume (in m³) e.g. in the room volume 120 m^3 maximum surface to be disinfected is 12 m^2.

2.1.13.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 2.

2.1.13.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 2.

2.1.13.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 2.

2.1.13.2 Use description

Table 6. Use # 2.2 – **Disinfection of surfaces (floors) in industry (e.g. dining areas, bathrooms) by mopping using flat mop and bucket**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)

Where relevant, an exact description of the authorised use	-
Target organism (including development stage)	Bacteria Yeasts Fungi Mycobacteria
Field of use	Indoor Disinfection of small surfaces (floors) in industry plants.
Application method(s)	Mopping using mop and bucket
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 20 mL/m^2 Contact times for mopping at 20^0C in dirty conditions: – 5 min for bacteria and yeasts; – 15 min for fungi; – 60 min for mycobacteria. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Container, 1-100L Light precluding HDPE Jerry can, 1-100L Light precluding HDPE IBC, 600-1000L Light precluding HDPE Drum, 60-220L Light precluding HDPE Bottle, 0.1-5L

2.1.13.2 Use-specific instructions for use

See general directions for use of Meta-SPC 2. Fill the bucket with ready to use product and mop across floor using floor mop, afterwards wipe the surface with clean, dry floor mop or let air dry.

2.1.13.2 Use-specific risk mitigation measures

None

2.1.13.2 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 2.

2.1.13.2 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 2.

2.1.13.2 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 2.

2.1.13.3 Use description

Table 7. Use # 2.3 – **Disinfection of food contact surfaces in food and beverage industry by spraying using trigger sprayer and dry wipe**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Spraying: Bacteria; Yeasts; Spraying and wiping: Bacteria; Yeasts; Fungi; Mycobacteria
Field of use	Indoor Disinfection of small surfaces in food processing plants
Application method(s)	Spraying using trigger sprayer and dry wipe
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact time for spraying at 20^0C in dirty conditions: – 5 min for bacteria and yeasts. Contact times for spraying and wiping at 20^0C in dirty conditions: – 5 min for bacteria and yeasts; – 15 min for fungi; – 60 min for mycobacteria. Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Container, 1-100L Light precluding HDPE Jerry can, 1-100L Light precluding HDPE IBC, 600-1000L Light precluding HDPE Drum, 60-220L Light precluding HDPE Bottle, 0.1-5L Light precluding HDPE; PE Spray bottle, 0.5-1L

2.1.13.3 Use-specific instructions for use

See general directions for use of Meta-SPC 2. For optimum results hold bottle upright and spray from a distance of 30 cm. Spray the product onto the surface, leave for the required contact time and then either remove excess liquid with dry wipe or allow to air dry. Always close the nozzle after use. Used wipes must be disposed in a closed container.

2.1.13.3 Use-specific risk mitigation measures

Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.

2.1.13.3 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 2.

2.1.13.3 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 2.

2.1.13.3 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 2.

2.1.13.4 Use description

Table 8. Use # 2.4 – **Disinfection of food contact surfaces in food and beverage industry by spraying using fixed installed sprayer**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoor Automated disinfection application in industrial process equipment
Application method(s)	Fixed installed spraying
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 300L per application Contact time for spraying at 20^0C in dirty conditions: – 5 min for bacteria and yeasts. Application frequency: once peer week
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Container, 1-100L Light precluding HDPE Jerry can, 1-100L Light precluding HDPE IBC, 600-1000L Light precluding HDPE Drum, 60-220L Light precluding HDPE Bottle, 0.1-5L

2.1.13.4 Use-specific instructions for use

See general directions for use of Meta-SPC 2. Use outside food production time, once per week.

2.1.13.4 Use-specific risk mitigation measures

Application only after the working shift/overnight. During spraying application, no operator shall be present. To determine the appropriate re-entry time, workplace release measurements with suitable measurement equipment shall be performed upon implementation of the fixed installed spraying, at regular intervals (annual intervals recommended) and after any change in relevant boundary conditions. The national regulations for workplace measurements have to be followed. In case of unscheduled maintenance tasks during spraying application, use of respiratory protective equipment (RPE) providing a protection factor of 10 is mandatory. Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.

2.1.13.4 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 2.

2.1.13.4 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 2.

2.1.13.4 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 2.

2.1.14 General directions for use of the meta SPC 2

2.1.14.1 Instructions for use

See use-specific instruction for use of Meta-SPC 2. Always read the label or leaflet before use and follow all the instructions. Product should be applied to a dry surface. Wet surfaces completely. Do not rinse after use. Do not use on surfaces sensitive to oxidative agents such as marble, copper or brass.

2.1.14.2 Risk mitigation measures

See use-specific risk mitigation measures of Meta-SPC 2.

2.1.14.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENTIAL HEALTH EFFECTS

Eyes: Health injuries are not known or expected under normal use.

Skin: Health injuries are not known or expected under normal use.

Ingestion: Health injuries are not known or expected under normal use.

Inhalation: Health injuries are not known or expected under normal use.

Chronic Exposure: Health injuries are not known or expected under normal use.

FIRST AID MEASURES

In case of eye contact: Rinse with plenty of water.

In case of skin contact: Rinse with plenty of water.

If swallowed: Rinse mouth. Get medical attention if symptoms occur.

If inhaled: Get medical attention if symptoms occur.

ENVIRONMENTAL EMERGENCY MEASURES

Do not allow contact with soil, surface or ground water.

Consider the provision of containment around storage vessels.

2.1.14.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging: Dispose of container in accordance with national regulations.

2.1.14.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Storage temperature: 0-35 °C

Shelf life: 24 months

2.1.15 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 2

2.1.16 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	DrySan Oxy				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1

PART II - SECOND INFORMATION LEVEL - META SPC 3

2.1.17 Meta SPC 3 administrative information

2.1.17.1 Meta SPC identifier

Identification	META SPC 3

2.1.17.2 Suffix to the authorisation number

Number	1-3

2.1.17.3 Product type(s)

Product type(s)	PT04 - Food and feed area (Disinfectants)

2.1.18 Meta SPC 3 composition

2.1.18.1 Qualitative and quantitative information on the composition of the meta SPC 3

Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**	
					Min	**Max**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	35	36.75

2.1.18.2 Type(s) of formulation of the meta SPC 3

AL – Any other liquid

2.1.19 Hazard and precautionary statements according to Regulation (EC) 1272/2008 of the meta SPC 3

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification			
Hazard category	Ox. Liq. 2 Acute Tox. 4 Skin Irrit. 2 Eye Dam. 1 STOT SE 3 Aquatic Chronic 3		
Hazard statement	H272: May intensify fire; oxidiser H302: Harmful if swallowed H315: Causes Skin irritation H318: Causes serious eye damage H335: May cause respiratory irritation H412: Harmful to aquatic life with long lasting effect		
Labelling			
Hazard Pictogram			
	GHS05: Corrosion	GHS07: Exclamation mark	GHS03: Flame over circle
Signal words	Danger		
Hazard statements	H272: May intensify fire; oxidiser H302: Harmful if swallowed H315: Causes skin irritation H318: Causes serious eye damage H335: May cause respiratory irritation H412: Harmful to aquatic life with long lasting effect		

Precautionary statements	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220: Keep away from clothing and other combustible materials. P261: Avoid breathing vapours/spray. P264: Wash hands thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P271: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment. P280: Wear protective gloves/eye protection/face protection. P301 + P312: IF SWALLOWED: Call a POISON CENTRE if you feel unwell. P302 + P352: IF ON SKIN: Wash with plenty of water. P304 + P340: IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER/doctor. P312: Call a POISON CENTRE if you feel unwell. P321: Specific treatment (see first aid instruction on this label). P330: Rinse mouth. P332 + P313: If skin irritation occurs: Get medical advice/attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P370 + P378: In case of fire: Use water to extinguish. P403 + P233: Store in a well-ventilated place. Keep container tightly closed. P405: Store locked up. P501: Dispose of contents/container in accordance with national regulations.
Note	

Article 69 (1) of the Regelation (EU) No 528/2012 establishes that the authorisation holder shall ensure that biocidal products are classified and labelled in accordance with the Regulation (EC) No 1272/2008.

2.1.20 Authorised use(s) of the META SPC 3

2.1.20.1 Use description

Table 9. Use # 3.1 – **Disinfection of food contact surfaces in food and beverage industry by automated dipping or spraying in closed system**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi

	Spores (Bacterial)
Field of use	Indoor Disinfection of packaging (aseptic filling) by fully automated dipping and spraying (closed process). Packaging disinfection in food, beverage and feed manufacturing (dip and spray application).
Application method(s)	Automated dipping or spraying in closed system
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: constant automated dosing Contact time for dipping and spraying at 60^0C in clean conditions: – 1 min for bacteria, yeasts, fungi and bacterial spores. Application frequency: constant automated dosing
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bulk delivery container, > 1L - bulk Light precluding HDPE Jerry can, 1-100L Light precluding HDPE IBC, 600-1000L Light precluding HDPE Drum, 60-220L Light precluding HDPE Bottle, 0.1-5L

2.1.20.1 Use-specific instructions for use

Packaging disinfection in food, beverage and feed manufacturing (spraying or dipping application):

- Dosing of product directly into the packaging to disinfect or applied into additional steam
- Continuous use of the product
- Application temperature: 60°C
- Application takes place in a closed and vented system.

Do not rinse after use. After sterilisation, blow-dry the packaging with hot sterile air.

2.1.20.1 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 3.
Avoid breathing vapours/spray.
During operation, ensure adequate ventilation along the machines (LEV) and in the industrial halls (technical ventilation).
During manual maintenance tasks, ensure adequate ventilation inside the machine (LEV) before opening the doors of the aseptic area.

1. The product shall only be transferred in closed pipes after mixing and loading. Open product and waste water flows are not allowed.
2. Workplace release measurements with suitable measurement equipment shall be performed upon implementation of the aseptic packaging plant, at regular intervals (annual intervals recommended) and after any change in relevant boundary conditions. The national regulations for workplace measurements have to be followed.
3. In case of maintenance of the aseptic packaging plant (e.g. manual cleaning, technical incidents or repair) appropriate PPE (respiratory protective equipment, chemical protective gloves, chemical protective coverall, eye protection) is required. The type of RPE and the filter type (code letter, colour) are to be specified by the authorisation holder

within the product information. Glove material to be specified by the authorisation holder within the product information.

2.1.20.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 3.

2.1.20.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 3.

2.1.20.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 3.

2.1.20.2 Use description

Table 10. Use # 3.2 – **Disinfection of food contact surfaces in food and beverage industry by CIP**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi
Field of use	Indoor Disinfection in Food and beverage industry (food contact)
Application method(s)	CIP
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: automated dosing Contact time for closed system at 60^0C in clean conditions: – 5 min for bacteria and yeasts; – 15 min for fungi. Application frequency: 1 time per day
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bulk delivery container, > 1L - bulk Light precluding HDPE Jerry can, 1-100L Light precluding HDPE IBC, 600-1000L Light precluding HDPE Drum, 60-220L Light precluding HDPE Bottle, 0.1-5L

CIP – closed system

2.1.20.2 Use-specific instructions for use

Before disinfection, system should be washed. Disinfection of CIP tanks, CIP pumps, pipe work and internal system of the process equipment for food, beverage and feed including milking machine hygiene (MMH) (closed systems). Rinse after treatment with water.

2.1.20.2 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 3. Keep food, feed or beverages away from treated surface until rinsed off.

2.1.20.2 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 3.

2.1.20.2 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 3.

2.1.20.2 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 3.

2.1.21 General directions for use of the meta SPC 3

2.1.21.1 Instructions for use

See use-specific instruction for use of Meta-SPC 3.

2.1.21.2 Risk mitigation measures

See use-specific risk mitigation measures of Meta-SPC 3. Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). The use of eye protection during handling of the product is mandatory. The process of dilution has to be carried out using an automatic dosing system.

2.1.21.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENTIAL HEALTH EFFECTS

Eyes: Causes serious eye damage.

Skin: Causes skin irritation.

Ingestion: Harmful if swallowed.

Inhalation: May cause respiratory tract irritation. May cause nose, throat, and lung irritation.

Chronic Exposure: Health injuries are not known or expected under normal use.

FIRST AID MEASURES

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact: Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Get medical attention if irritation develops and persists.

If swallowed: Rinse mouth. Get medical attention if symptoms occur.

If inhaled: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

ENVIRONMENTAL EMERGENCY MEASURES

Do not allow contact with soil, surface or ground water.

Consider the provision of containment around storage vessels.

2.1.21.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging: Dispose of container in accordance with national regulations.

2.1.21.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Storage temperature: 0 - 35 °C

Shelf life: 24 months

2.1.22 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 3

2.1.23 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Oxypak D Oxypak S Oxypak S10				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	35

PART II - SECOND INFORMATION LEVEL - META SPC 4

2.1.24 Meta SPC 4 administrative information

2.1.24.1 Meta SPC identifier

Identification	META SPC 4

2.1.24.2 Suffix to the authorisation number

Number	1-4

2.1.24.3 Product type(s)

Product type(s)	PT03 - Veterinary hygiene (Disinfectants)

2.1.25 Meta SPC 4 composition

2.1.25.1 Qualitative and quantitative information on the composition of the meta SPC 4

Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**	
					Min	**Max**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1.4	1.61
Citric acid monohydrate	2-hydroxypropane -1,2,3-	Non-active substance	5949-29-1	201-069-1	0.9	0.9

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
	tricarboxylic acid					
Phenoxyethanol	2-Phenoxyethanol	Non-active substance	122-99-6	204-589-7	0.9	0.9
Sodium lauryl Sulphate	Sodium dodecyl sulphate	Non-active substance	151-21-3	205-788-1	3.88	3.88
Sodium caprylolglutamate	Sodium;(4S)-4-amino-5-hydroxy-5-oxopentanoate	Non-active substance	68187-32-6	269-087-2	2.00	2.00
Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (Texapon ALS)	Sulfuric acid. Mono-C12-14-alkyl esters. ammonium salts	Non-active substance	90583-11-2	292-209-0	1.12	1.12

2.1.25.2 Type(s) of formulation of the meta SPC 4

AL - Any other liquid

2.1.26 Hazard and precautionary statements according to Regulation (EC) 1272/2008 of the meta SPC 4

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification	
Hazard category	Met. Corr. 1 Eye Irrit. 2
Hazard statement	H290: May be corrosive to metals. H319: Causes serious eye irritation.
Labelling	
Hazard Pictogram	
	GHS07: Exclamation mark
Signal words	Warning
Hazard statements	H290: May be corrosive to metals H319: Causes serious eye irritation
Precautionary statements	P234: Keep only in original packaging. P264: Wash hands thoroughly after handling. P280: Wear eye protection/face protection. P390: Absorb spillage to prevent material damage. P406: Store in a corrosion-resistant container with a resistant inner liner. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313: If eye irritation persists: Get medical advice/attention.
Note	

Article 69 (1) of the Regelation (EU) No 528/2012 establishes that the authorisation holder shall ensure that biocidal products are classified and labelled in accordance with the Regulation (EC) No 1272/2008.

2.1.27 Authorised use(s) of the META SPC 4

2.1.27.1 Use description

Table 11. Use # 4.1 – **Teat dips for pre-milking disinfection**

Product Type	PT03 - Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeast
Field of use	Indoor Teat disinfection pre-milking by manual dipping using a dip/foam cup
Application method(s)	Manual dipping using a dip/foam cup (pre-milking disinfection).

Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 4 ml of product per application (i.e. 1 ml per teat therefore 4 ml product for animals with four teats) Contact time for dipping at 30^0C in clean conditions: – 60 seconds for bacteria and yeasts. Application frequency: up to 2 times per day
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Jugs, 1-100L Light precluding HDPE Jerry can, 1-100L Light precluding HDPE IBC, 600-1000L Light precluding HDPE Drum, 60-220L Light precluding HDPE Bottle, 0.1-5L Light precluding HDPE; PE Pouch, 0.5-100L

2.1.27.1 Use-specific instructions for use

See general directions for use of Meta-SPC4.

2.1.27.1 Use-specific risk mitigation measures

See general directions for use of Meta-SPC4.

2.1.27.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC4.

2.1.27.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC4.

2.1.27.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC4.

2.1.28 General directions for use of the meta SPC 4

2.1.28.1 Instructions for use

Always read the label or leaflet before use and follow all the instructions. Product to be applied pre-milking by use of a dipping/foam cup. The product must be brought to room temperature before use.
Pre-clean teat with dry wipe, fill foam cup with product and press foam cup till foam is generated. Dip teat into the cup. Apply foam for 60 seconds on the teat. Wipe the product away with clean towel. Do not rinse after use.

2.1.28.2 Risk mitigation measures

Avoid splashes and spills.
Avoid hand to eye transfer.

2.1.28.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENTIAL HEALTH EFFECTS

Eyes: Causes serious eye irritation.

Skin: Health injuries are not known or expected under normal use.

Ingestion: Health injuries are not known or expected under normal use.

Inhalation: Health injuries are not known or expected under normal use.

Chronic Exposure: Health injuries are not known or expected under normal use.

FIRST AID MEASURES

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

In case of skin contact: Rinse with plenty of water.

If swallowed: Rinse mouth. Get medical attention if symptoms occur.

If inhaled: Get medical attention if symptoms occur.

ENVIRONMENTAL EMERGENCY MEASURES

Do not allow contact with soil, surface or ground water.

Consider the provision of containment around storage vessels.

2.1.28.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging: Dispose of container in accordance with national regulations.

2.1.28.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Storage temperature: 0-25°C
Shelf life: 18 months

2.1.29 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 4

2.1.30 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	OxyFoam Plus MEPA Foampro D Predip PLUS				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1.4
Citric acid monohydrate	2-hydroxypropane-1,2,3-tricarboxylic acid	Non-active substance	5949-29-1	201-069-1	0.9
Phenoxyethanol	2-Phenoxyethanol	Non-active substance	122-99-6	204-589-7	0.9
Sodium lauryl Sulphate	Sodium dodecyl sulphate	Non-active substance	151-21-3	205-788-1	3.88
Sodium caprylolglutamate	Sodium;(4S)-4-amino-5-hydroxy-5-oxopentanoate	Non-active substance	68187-32-6	269-087-2	2.00
Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (Texapon ALS)	Sulfuric acid. Mono-C12-14-alkyl esters. ammonium salts	Non-active substance	90583-11-2	292-209-0	1.12

PART II - SECOND INFORMATION LEVEL - META SPC 5

2.1.31 Meta SPC 5 administrative information

2.1.31.1 Meta SPC identifier

Identification	META SPC 5

2.1.31.2 Suffix to the authorisation number

Number	1-5

2.1.31.3 Product type(s)

Product type(s)	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) PT04 - Food and feed area (Disinfectants)

2.1.32 Meta SPC 5 composition

2.1.32.1 Qualitative and quantitative information on the composition of the meta SPC 5

Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**	
					Min	**Max**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1.5	1.5

2.1.32.2 Type(s) of formulation of the meta SPC 5

AL - Any other liquid

2.1.33 Hazard and precautionary statements according to Regulation (EC) 1272/2008 of the meta SPC 5

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification	
Hazard category	Not classified
Hazard statement	
Labelling	
Hazard Pictogram	-
	-
Signal words	-
Hazard statements	-
Precautionary statements	-
Note	

2.1.34 Authorised use(s) of the META SPC 5

2.1.34.1 Use description

Table 12. Use # 5.1 – **Disinfection of life sciences cleanrooms by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)

Where relevant, an exact description of the authorised use	-
Target organism (including development stage)	Bacteria, Mycobacteria Yeasts Fungi Bacterial spores Bacterial spores - *Clostridium difficile* Viruses
Field of use	Indoor Disinfection of surfaces, materials and equipment in Life Sciences Cleanroom A - D and supporting environments (e.g. pharmaceutical industry) Transfer disinfection or disinfection of small surfaces
Application method(s)	Spraying using trigger sprayer and dry wipe
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for spraying and wiping at 20^0C in dirty conditions: – 1 min for bacteria and yeasts; – 5 min for fungi and mycobacteria; – 60 min for bacterial spores; – 30 min for viruses; Contact times for spraying and wiping at 20^0C in clean conditions: – 5 min for *Clostridium difficile* spores; – 30 min for bacterial spores. Contact times for spraying at 20^0C in clean conditions: – 5 min for bacteria, yeasts and fungi; – 30 min for viruses and bacterial spores. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PET Spray bottle, 0.25-1L Light precluding HDPE Bottle, 1-5L

2.1.34.1 Use-specific instructions for use

See general directions for use of Meta-SPC 5. When used under clean conditions: clean surface up front. For optimum results hold bottle upright and spray from a distance of 10 cm to 20 cm. Spray the product onto a dry wipe and wipe small surfaces such as worktops and equipment or spray the product onto the surface, wipe the surface with clean, dry wipe and let air dry. Always close the nozzle after use. Used wipes must be disposed in a closed container.

2.1.34.1 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 5.

2.1.34.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 5.

2.1.34.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 5.

2.1.34.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 5.

2.1.34.2 Use description

Table 13. Use # 5.2 – **Disinfection of life sciences cleanrooms by mopping using flat mop and bucket (Meta-SPC 5 c)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria, Mycobacteria Yeasts Fungi Bacterial spores Bacterial spores - *Clostridium difficile* Viruses
Field of use	Indoor Disinfection of floors in Life Sciences Cleanroom and supporting environments (e.g. pharmaceutical industry).
Application method(s)	Mopping using mop and bucket
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 20 mL/m^2 Contact times for mopping at 20^0C in dirty conditions: – 1 min for bacteria and yeasts; – 5 min for fungi and mycobacteria; – 60 min for bacterial spores; – 30 min for viruses; Contact times for mopping at 20^0C in clean conditions: – 5 min for *Clostridium difficile* spores; – 30 min for bacterial spores. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 1-5L

2.1.34.2 Use-specific instructions for use

See general directions for use of Meta-SPC 5. When used under clean conditions: clean surface up front. Apply to surfaces by mopping.

2.1.34.2 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 5.

2.1.34.2 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 5.

2.1.34.2 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 5.

2.1.34.2 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 5.

2.1.34.3 Use description

Table 14. Use # 5.3 – **Disinfection of non-food contact surfaces in health care applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 b)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Mycobacteria
Field of use	Indoor Routine and non-routine disinfection of small and large surfaces in hospital rooms and medical practices.
Application method(s)	Spraying using trigger spray and dry wipe
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for spraying at 20^0C in dirty conditions: – 1 min for bacteria and yeasts; – 5 min for fungi; – 15 min for mycobacteria. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PET Spray bottle, 0.25-1L Light precluding HDPE Jerry can, 1-5L

2.1.34.3 Use-specific instructions for use

See general directions for use of Meta-SPC 5. Routine disinfection: Disinfection of surfaces, which might be contaminated with pathogens during medical or nursing processes on a regular basis to reduce the risk of transmission of such organisms via surfaces. Non routine disinfection: Disinfection in specific risk situations (unless differently regulated by national public health authorities). Product is intended for cleaning and disinfection in one step. For optimum results hold bottle upright and spray from a distance of 30 cm. Spray the product onto the surface, then wipe surface with a clean, dry wipe and leave to dry. Always close the nozzle after use. Used wipes must be disposed in a closed container.

2.1.34.3 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 5. The area of the surfaces to be disinfected (in m^2) must not be larger than 1/10 of the room volume (in m^3) e.g. in the room volume 120 m^3 maximum surface to be disinfected is 12 m^2.

2.1.34.3 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 5.

2.1.34.3 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 5.

2.1.34.3 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 5.

2.1.34.4 Use description

Table 15. Use # 5.4 – **Disinfection of non-food contact surfaces in health care applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Mycobacteria Yeasts Fungi Bacterial spores Bacterial spores - *Clostridium difficile* Viruses

Field of use	Indoor Routine and non-routine disinfection of small and large surfaces in hospital rooms and medical practices.
Application method(s)	Spraying using trigger spray and dry wipe
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for spraying and wiping at 20^0C in dirty conditions: – 1 min for bacteria and yeasts; – 5 min for fungi and mycobacteria; – 60 min for bacterial spores; – 30 min for viruses; Contact times for spraying and wiping at 20^0C in clean conditions: – 5 min for *Clostridium difficile* spores; – 30 min for bacterial spores. Contact times for spraying at 20^0C in clean conditions: – 5 min for bacteria, yeasts and fungi; – 30 min for viruses and bacterial spores. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PET Spray bottle, 0.25-1L Light precluding HDPE Bottle, 1-5L Light precluding HDPE Jerry can, 1-5L

2.1.34.4 Use-specific instructions for use

See general directions for use of Meta-SPC 5.
Routine disinfection: Disinfection of surfaces, which might be contaminated with pathogens during medical or nursing processes on a regular basis to reduce the risk of transmission of such organisms via surfaces.
Non routine disinfection: Disinfection in specific risk situations (unless differently regulated by national public health authorities).

Product is intended for cleaning and disinfection in one step. When used under clean conditions: clean surface up front. For optimum results hold bottle upright and spray from a distance of 30 cm. Spray the product onto a dry wipe and wipe small surfaces such as worktops and equipment or spray product onto the surface, then wipe surface with a clean, dry wipe and leave to dry. Always close the nozzle after use. Used wipes must be disposed in a closed container.

2.1.34.4 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 5.
The area of the surfaces to be disinfected (in m^2) must not be larger than 1/10 of the room volume (in m^3) e.g. in the room volume 120 m^3 maximum surface to be disinfected is 12 m^2.

2.1.34.4 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 5.

2.1.34.4 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 5.

2.1.34.4 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 5.

2.1.34.5 Use description

Table 16. Use # 5.5 – **Disinfection of non-food contact surfaces in health care applications by wiping using clean single use cloth/wipe and bucket (Meta-SPC 5 b)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Mycobacteria
Field of use	Indoor Routine and non-routine disinfection of small and large surfaces in hospital rooms and medical practices.
Application method(s)	Wiping using cloth/wipe and bucket
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for wiping at 20^0C in dirty conditions: – 1 min for bacteria and yeasts; – 5 min for fungi; – 15 min for mycobacteria. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Jerry can, 1-5L

2.1.34.5 Use-specific instructions for use

See general directions for use of Meta-SPC 5. Routine disinfection: Disinfection of surfaces, which might be contaminated with pathogens during medical or nursing processes on a regular basis to reduce the risk of transmission of such organisms via surfaces. Non routine disinfection: Disinfection in specific risk situations (unless differently regulated by national public health authorities).

Product is intended for cleaning and disinfection in one step. Pour product in a clean bucket and distribute across surface using single cloth/wipe and let air dry. Used wipes must be disposed in a closed container.

2.1.34.5 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 5.

2.1.34.5 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 5.

2.1.34.5 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 5.

2.1.34.5 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 5.

2.1.34.6 Use description

Table 17. Use # 5.6 – **Disinfection of non-food contact surfaces in health care applications by wiping using clean single use cloth/wipe and bucket (Meta-SPC 5 c)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria, Mycobacteria Yeasts Fungi Bacterial spores Bacterial spores - *Clostridium difficile* Viruses
Field of use	Indoor Routine and non-routine disinfection of small and large surfaces in hospital rooms and medical practices.
Application method(s)	Wiping using cloth/wipe and bucket
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for wiping at 20^{0}C in dirty conditions: – 1 min for bacteria and yeasts; – 5 min for fungi and mycobacteria; – 60 min for bacterial spores; – 30 min for viruses;

	Contact times for wiping at 20^{0}C in clean conditions: – 5 min for *Clostridium difficile* spores; – 30 min for bacterial spores. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 1-5L Light precluding HDPE Jerry can, 1-5L

2.1.34.6 Use-specific instructions for use

See general directions for use of Meta-SPC 5. Routine disinfection: Disinfection of surfaces, which might be contaminated with pathogens during medical or nursing processes on a regular basis to reduce the risk of transmission of such organisms via surfaces. Non routine disinfection: Disinfection in specific risk situations (unless differently regulated by national public health authorities). Product is intended for cleaning and disinfection in one step. When used under clean conditions: clean surface up front. Pour product in a clean bucket and distribute across surface using single cloth/wipe and let air dry. Used wipes must be disposed in a closed container.

2.1.34.6 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 5.

2.1.34.6 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 5.

2.1.34.6 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 5.

2.1.34.6 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 5.

2.1.34.7 Use description

Table 18. Use # 5.7 – **Disinfection of non-food contact surfaces in health care applications by mopping using mop and bucket (Meta-SPC 5 c)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria, Mycobacteria Yeasts

	Fungi Bacterial spores Bacterial spores - *Clostridium difficile* Viruses
Field of use	Indoor Non-routine disinfection of larger surfaces in hospital room.
Application method(s)	Mopping using mop and bucket
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate for mopping: 20 mL/m^2 Contact times for mopping at 20^0C in dirty conditions: – 1 min for bacteria and yeasts; – 5 min for fungi and mycobacteria; – 60 min for bacterial spores; – 30 min for viruses; Contact times for mopping at 20^0C in clean conditions: – 5 min for *Clostridium difficile* spores; – 30 min for bacterial spores. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 1-5L Light precluding HDPE Jerry can, 1-5L

2.1.34.7 Use-specific instructions for use

See general directions for use of Meta-SPC 5.
Non routine disinfection: Disinfection in specific risk situations (unless differently regulated by national public health authorities).

Product is intended for cleaning and disinfection in one step. When used under clean conditions: clean surface up front. Fill the bucket with ready to use product and distribute across floor using floor mop and let air dry.

2.1.34.7 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 5.

2.1.34.7 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 5.

2.1.34.7 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 5.

2.1.34.7 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 5.

2.1.34.8 Use description

Table 19. Use # 5.8 – **Disinfection of non-food contact surfaces in health care applications by mopping using mop and bucket (Meta-SPC 5 c)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria, Mycobacteria Yeasts Fungi Bacterial spores Bacterial spores - *Clostridium difficile* Viruses
Field of use	Indoor Non-routine disinfection of larger surfaces in medical practices.
Application method(s)	Mopping using mop and bucket
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate for mopping: 20 mL/m^2 Contact times for mopping at 20^0C in dirty conditions: – 1 min for bacteria and yeasts; – 5 min for fungi and mycobacteria; – 60 min for bacterial spores; – 30 min for viruses; Contact times for mopping at 20^0C in clean conditions: – 5 min for *Clostridium difficile* spores; – 30 min for bacterial spores. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 1-5L Light precluding HDPE Jerry can, 1-5L

2.1.34.8 Use-specific instructions for use

See general directions for use of Meta-SPC 5. Non routine disinfection: Disinfection in specific risk situations (unless differently regulated by national public health authorities). Product is intended for cleaning and disinfection in one step. When used under clean conditions: clean surface up front. Fill the bucket with ready to use product and distribute across floor using floor mop, wipe the surface with clean, dry floor mop and let air dry.

2.1.34.8 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 5.

2.1.34.8 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 5.

2.1.34.8 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 5.

2.1.34.8 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 5.

2.1.34.9 Use description

Table 20. Use # 5.9 – **Disinfection of non-food contact surfaces in health care application by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface or by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe and non-routine disinfection of larger surfaces by mopping using mop and bucket (Meta-SPC 5 c)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria, Mycobacteria Yeasts Fungi Bacterial spores Bacterial spores - *Clostridium difficile* Viruses
Field of use	Indoor Non-routine disinfection of smaller and larger surfaces in hospital rooms and medical practices.
Application method(s)	Spraying using trigger sprayer and dry wipe and mopping using mop and bucket Wiping using cloth/wipe and bucket and mopping using mop and bucket
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate for spraying and wiping: 10 mL/m^2 Application rate for mopping: 20 mL/m^2 Contact times for spraying and wiping, mopping at 20^{0}C in dirty conditions: – 1 min for bacteria and yeasts; – 5 min for fungi and mycobacteria; – 60 min for bacterial spores;

	– 30 min for viruses; Contact time for spraying and wiping, mopping at 20^{0}C in clean conditions: – 5 min for *Clostridium difficile* spores; – 30 min for bacterial spores. Contact times for spraying at 20^{0}C in clean conditions: – 5 min for bacteria, yeasts and fungi; – 30 min for viruses and bacterial spores. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PET Spray bottle, 0.25-1L Light precluding HDPE Bottle, 1-5L Light precluding HDPE Jerry can, 1-5L

2.1.34.9 Use-specific instructions for use

See general directions for use of Meta-SPC 5.
Product is intended for cleaning and disinfection in one step. When used under clean conditions: clean surface up front.
Non routine disinfection: Disinfection in specific risk situations (unless differently regulated by national public health authorities).

Spraying using trigger sprayer and wiping using dry wipe: For optimum results hold bottle upright and spray from a distance of 30 cm. Spray the product onto a dry wipe and wipe small surfaces such as worktops and equipment or spray the product onto the surface, wipe the surface with clean, dry wipe and let air dry. Always close the nozzle after use. Used wipes must be disposed in a closed container.

Mopping using mop and bucket: Fill the bucket with ready to use product and distribute across floor using floor mop, wipe the surface with clean, dry floor mop and let air dry.

Wiping using cloth/wipe and bucket: Pour product in a clean bucket and distribute across surface using single cloth/wipe, wipe the surface with clean cloth/wipe and let air dry. Used wipes must be disposed in a closed container.

2.1.34.9 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 5.
For spraying: The area of the surfaces to be disinfected (in m²) must not be larger than 1/10 of the room volume (in m³) e.g. in the room volume 120 m^3 maximum surface to be disinfected is 12 m^2.

2.1.34.9 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 5.

2.1.34.9 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 5.

2.1.34.9 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 5.

2.1.34.10 Use description

Table 21. Use # 5.10 – **Disinfection of non-food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria, Mycobacteria Yeasts Fungi Bacterial spores Viruses
Field of use	Indoor Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms).
Application method(s)	Spraying using trigger sprayer and dry wipe
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for spraying and wiping at 20^{0}C in dirty conditions: – 1 min for bacteria and yeasts; – 5 min for fungi and mycobacteria; – 60 min for bacterial spores; – 30 min for viruses. Contact times for spraying and wiping at 20^{0}C in clean conditions: – 5 min for *Clostridium difficile* spores; – 30 min for bacterial spores. Contact times for spraying at 20^{0}C in clean conditions: – 5 min for bacteria, yeasts and fungi; – 30 min for viruses and bacterial spores. Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PET Spray bottle, 0.25-1L Light precluding HDPE Bottle, 1-5L

2.1.34.10 Use-specific instructions for use

See general directions for use of Meta-SPC 5. When used under clean conditions: clean surface up front. For optimum results hold bottle upright and spray from a distance of 30 cm. Spray the product onto a dry wipe and wipe

small surfaces such as worktops and equipment or spray the product onto the surface, wipe the surface with clean, dry wipe and let air dry. Always close the nozzle after use. Used wipes must be disposed in a closed container.

2.1.34.10 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 5.

2.1.34.10 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 5.

2.1.34.10 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 5.

2.1.34.10 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 5.

2.1.34.11 Use description

Table 22. Use # 5.11 – **Disinfection of food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria, Mycobacteria Yeasts Fungi Bacterial spores Bacterial spores - *Clostridium difficile* Viruses
Field of use	Indoor Routine disinfection of small surfaces in small food areas (e.g. kitchens).
Application method(s)	Spraying using trigger sprayer and dry wipe
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for spraying and wiping at 20^0C in dirty conditions: – 1 min for bacteria and yeasts; – 5 min for fungi and mycobacteria; – 60 min for bacterial spores; – 30 min for viruses;

	Contact times for spraying and wiping at 20^{0}C in clean conditions: – 5 min for *Clostridium difficile* spores; – 30 min for bacterial spores. Contact times for spraying at 20^{0}C in clean conditions: – 5 min for bacteria, yeasts and fungi; – 30 min for viruses and bacterial spores. Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PET Spray bottle, 0.25-1L Light precluding HDPE Bottle, 1-5L

2.1.34.11 Use-specific instructions for use

See general directions for use of Meta-SPC 5. When used under clean conditions: clean surface up front. For optimum results hold bottle upright and spray from a distance of 30 cm. Spray the product onto a dry wipe and wipe small surfaces such as worktops and equipment or spray the product onto the surface, wipe the surface with clean, dry wipe and let air dry. Always close the nozzle after use. Used wipes must be disposed in a closed container.

2.1.34.11 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 5. Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.

2.1.34.11 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 5.

2.1.34.11 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 5.

2.1.34.11 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 5.

2.1.35 General directions for use of the meta SPC 5

2.1.35.1 Instructions for use

See use-specific instruction for use of Meta-SPC 5. Always read the label or leaflet before use and follow all the instructions. Product should be applied to a dry surface. Wet surfaces completely. Do not rinse after use. Do not use on surfaces sensitive to oxidative agents such as marble, copper or brass.

2.1.35.2 Risk mitigation measures

None

2.1.35.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENTIAL HEALTH EFFECTS Eyes: Health injuries are not known or expected under normal use. Skin: Health injuries are not known or expected under normal use. Ingestion: Health injuries are not known or expected under normal use. Inhalation: Health injuries are not known or expected under normal use. Chronic Exposure: Health injuries are not known or expected under normal use. FIRST AID MEASURES In case of eye contact: Rinse with plenty of water. In case of skin contact: Rinse with plenty of water. If swallowed: Rinse mouth. Get medical attention if symptoms occur. If inhaled: Get medical attention if symptoms occur. ENVIRONMENTAL EMERGENCY MEASURES Do not allow contact with soil, surface or ground water. Consider the provision of containment around storage vessels.

2.1.35.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility. Contaminated packaging: Dispose ofcontainer in accordance with national regulations.

2.1.35.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers. Storage temperature: 0-35 °C. Protect from frost. Shelf life: 18 months

2.1.36 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 5

2.1.37 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Incidin OxyFoam				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1.5

2.1.38 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Incidin OxyFoam S Klercide Sporicidal Enhanced Peroxide KitchenPro Oxy Foam S				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1.5

PART II - SECOND INFORMATION LEVEL - META SPC 6

2.1.39 Meta SPC 6 administrative information

2.1.39.1 Meta SPC identifier

Identification	META SPC 6

2.1.39.2 Suffix to the authorisation number

Number	1-6

2.1.39.3 Product type(s)

Product type(s)	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) PT04 - Food and feed area (Disinfectants)

2.1.40 Meta SPC 6 composition

2.1.40.1 Qualitative and quantitative information on the composition of the meta SPC 6

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	2	2.3
n-propanol	n-propanol	Non-active substance	71-23-8	200-746-9	17.5	17.5

2.1.40.2 Type(s) of formulation of the meta SPC 6

AL - Any other liquid

2.1.41 Hazard and precautionary statements according to Regulation (EC) 1272/2008 of the meta SPC 6

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification		
Hazard category	Flam. Liq. 3 Eye Dam. 1	
Hazard statement	H226: Flammable liquid and vapour H318: Causes serious eye damage	
Labelling		
Hazard Pictogram		
	GHS05: Corrosion	GHS02: Flame
Signal words	Danger	
Hazard statements	H226: Flammable liquid and vapour H318: Causes serious eye damage	
Precautionary statements	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233: Keep container tightly closed. P240: Ground and bond container and receiving equipment. P241: Use explosion proof electrical/ventilating/ lighting/ equipment. P242: Use non -sparking tools. P243: Take action to prevent static discharges. P280: Wear eye protection/face protection. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P370 + P378: In case of fire: Use water to extinguish. P403 + P235: Store in a wellventilated place. Keep cool. P310: Immediately call a POISON CENTER/doctor. P501: Dispose of contents/container in accordance with national regulations.	
Note		

Article 69 (1) of the Regelation (EU) No 528/2012 establishes that the authorisation holder shall ensure that biocidal products are classified and labelled in accordance with the Regulation (EC) No 1272/2008.

2.1.42Authorised use(s) of the META SPC 6

2.1.42.1 Use description

Table 23. Use # 6.1 – **Disinfection of small surfaces in industry (e.g. dining areas, bathrooms) by spraying using trigger sprayer**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)

Where relevant, an exact description of the authorised use	-
Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoor Disinfection of small surfaces in industry (e.g. dining areas, bathrooms).
Application method(s)	Spraying using trigger sprayer and dry wipe
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact time for spraying at 10^0C and 20^0C in dirty conditions: – 5 min for bacteria and yeasts. Contact time for spraying at 10^0C in clean conditions: – 1 min for bacteria and yeasts. Application frequency: up to 3 times per day
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Container, 1-100L Light precluding HDPE Jerry can, 1-100L Light precluding HDPE IBC, 600-1000L Light precluding HDPE Drum, 60-220L Light precluding HDPE Bottle, 0.1-5L Light precluding HDPE Spray bottle, up to 1L

2.1.42.1 Use-specific instructions for use

See general directions for use of Meta-SPC 6.

2.1.42.1 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 6.

2.1.42.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 6.

2.1.42.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 6.

2.1.42.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 6.

2.1.42.2 Use description

Table 24. Use # 6.2 – **Disinfection of food contact surfaces in food and beverage industry by spraying using trigger sprayer**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoor Disinfection of small surfaces in food processing plants.
Application method(s)	Spraying using trigger spray and dry wipe
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact time for spraying at 10^0C and 20^0C in dirty conditions: – 5 min for bacteria and yeasts. Contact time for spraying at 10^0C in clean conditions: – 1 min for bacteria and yeasts. Application frequency: up to 4 times per day
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Container, 1-100L Light precluding HDPE Jerry can, 1-100L Light precluding HDPE IBC, 600-1000L Light precluding HDPE Drum, 60-220L Light precluding HDPE Bottle, 0.1-5L Light precluding HDPE Spray bottle, up to 1L

2.1.42.2 Use-specific instructions for use

See general directions for use of Meta-SPC 6.

2.1.42.2 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 6. Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.

2.1.42.2 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 6.

2.1.42.2 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 6.

2.1.42.2 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 6.

2.1.43 General directions for use of the meta SPC 6

2.1.43.1 Instructions for use

Always read the label or leaflet before use and follow all the instructions. When used under clean conditions: clean surface up front. Product should be applied to a dry surface. For optimum results hold bottle upright and spray from a distance of 10 cm to 20 cm. Spray the product onto the surface, wipe the surface with clean, dry wipe or let air dry. Always close the nozzle after use. Wet surfaces completely. Do not rinse after use. Do not use on surfaces sensitive to oxidative agents such as marble, copper or brass. Used wipes must be disposed in a closed container.

2.1.43.2 Risk mitigation measures

The use of eye protection during handling of the product is mandatory.

2.1.43.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENTIAL HEALTH EFFECTS Eyes: Causes serious eye damage. Skin: Health injuries are not known or expected under normal use. Ingestion: Health injuries are not known or expected under normal use. Inhalation: Health injuries are not known or expected under normal use. Chronic Exposure: Health injuries are not known or expected under normal use. FIRST AID MEASURES In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately. In case of skin contact: Rinse with plenty of water. If swallowed: Rinse mouth. Get medical attention if symptoms occur. If inhaled: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur. ENVIRONMENTAL EMERGENCY MEASURES Do not allow contact with soil, surface or ground water. Consider the provision of containment around storage vessels.

2.1.43.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility. Contaminated packaging: Dispose of container in accordance with national regulations.

2.1.43.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers. Keep away from heat and sources of ignition. Keep in a cool, well ventilated place. Keep away from oxidizing agents. Storage temperature: 0-30°C Shelf life: 24 months

2.1.44 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 6

2.1.45 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	OxyDes Rapid				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	2.0
n-propanol	n-propanol	Non-active substance	71-23-8	200-746-9	17.5

PART II - SECOND INFORMATION LEVEL - META SPC 7

2.1.46 Meta SPC 7 administrative information

2.1.46.1 Meta SPC identifier

Identification	META SPC 7

2.1.46.2 Suffix to the authorisation number

Number	1-7

2.1.46.3 Product type(s)

Product type(s)	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) PT04 - Food and feed area (Disinfectants)

2.1.47 Meta SPC 7 composition

2.1.47.1 Qualitative and quantitative information on the composition of the meta SPC 7

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	4.95	5.45
Capryleth-9 Carboxylic acid (mixture of alkyl ether carboxylic acid)	Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(octyloxy)- (4-11 EO)	Non-active substance	53563-70-5	not assigned	0	2.15
Hexeth-4 Carboxylic Acid (mixture of alkyl ether carboxylic acid)	Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(hexyloxy)- (3 EO)	Non-active substance	105391-15-9	not assigned	0	0.62

2.1.47.2 Type(s) of formulation of the meta SPC 7

SL - Soluble concentrate

2.1.48 Hazard and precautionary statements according to Regulation (EC) 1272/2008 of the meta SPC 7

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification	
Hazard category	Skin Corr. 1 Eye Dam. 1
Hazard statement	H314: Causes severe skin burns and eye damage H318: Causes serious eye damage
Labelling	
Hazard Pictogram	
	GHS05: Corrosion
Signal words	Danger
Hazard statements	H314: Causes severe skin burns and eye damage
Precautionary statements	P260: Do not breathe vapours/spray. P264: Wash hands thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated CLOTHING. Rinse skin with water. P304 + P340: If INHALED: Remove person to fresh air and keep comfortable for breathing. P310: Immediately call a POISON CENTER/doctor. P321: Specific treatment (see first aid instruction on this label). P363: Wash contaminated clothing before reuse. P405: Store locked up. P501: Dispose of contents/container in accordance with national regulations.
Note	

Article 69 (1) of the Regelation (EU) No 528/2012 establishes that the authorisation holder shall ensure that biocidal products are classified and labelled in accordance with the Regulation (EC) No 1272/2008.

2.1.49Authorised use(s) of the META SPC 7

2.1.49.1 Use description

Table 25. Use # 7.1 – **Disinfection of non-food contact surfaces in health care applications by mopping using flat mop and bucket**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**

Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoor Routine and non-routine disinfection of floors in hospital rooms and medical practices that are frequently touched by people and that are not frequently touched by people
Application method(s)	Mopping using mop and bucket
Dilution (%)	7.5-10
Application rate(s) and frequency	Application rate: 20 mL/m^2 Contact times for mopping at 20^{0}C in clean conditions: – 5 min for bacteria and yeasts (10 % dilution); – 15 min for bacteria (7.5 % dilution). Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5L Light precluding HDPE Canister, 1-100L Light precluding HDPE Pouch, 0.01-1L Light precluding HDPE Jug, 0.5-5L

2.1.49.1 Use-specific instructions for use

See general directions for use of Meta-SPC7.
Routine disinfection: Disinfection of surfaces, which might be contaminated with pathogens during medical or nursing processes on a regular basis to reduce the risk of transmission of such organisms via surfaces.
Non routine disinfection: Disinfection in specific risk situations (unless differently regulated by national public health authorities).

Product is intended for cleaning and disinfection in one step. Clean surface up front. Fill the bucket with diluted product and distribute across floor using floor mop, wipe the surface with clean, dry floor mop and let air dry. Do not rinse after use.

2.1.49.1 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 7.

2.1.49.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 7.

2.1.49.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 7.

2.1.49.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 7.

2.1.49.2 Use description

Table 26. Use # 7.2 – **Disinfection of non-food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe and/or by mopping using flat mop and bucket**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoor Routine disinfection of small and/or large surfaces in small non-food areas (e.g. bathrooms)
Application method(s)	Spraying using trigger sprayer and dry wipe Mopping using mop and bucket Spraying using trigger sprayer and dry wipe and mopping using mop and bucket
Dilution (%)	7.5-15
Application rate(s) and frequency	Application rate for spraying: 10 mL/m^2 Application rate for mopping: 20 mL/m^2 Contact times for spraying at 20^{0}C in clean conditions: – 5 min for bacteria and yeasts (10 % dilution); – 15 min for bacteria (7.5 % dilution). Contact times for spraying at 20^{0}C in dirty conditions: – 5 min for bacteria (10 % dilution). – 5 min for yeasts (15 % dilution). – 15 min for bacteria (7.5 % dilution). Contact times for mopping: at 20^{0}C in clean conditions: – 5 min for bacteria and yeasts (10 % dilution); – 15 min for bacteria (7.5 % dilution). Application frequency: Spraying trigger sprayer: up to 10 times per day per room Mopping: up to 2 times per day per room Spraying trigger sprayer and mopping: 1 time per day per room.
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5L Light precluding HDPE Canister, 1-100L Light precluding HDPE Pouch, 0.01-1L Light precluding HDPE Jug, 0.5-5L

2.1.49.2 Use-specific instructions for use

See general directions for use of Meta-SPC 7. Do not rinse after use.

Spraying: When used under clean conditions: clean surface up front. For optimum results hold bottle upright and spray from a distance of 10 cm to 20 cm. Spray the diluted product onto the surface, wipe the surface with clean, dry wipe and let air dry. Always close the nozzle after use. Used wipes must be disposed in a closed container. Mopping: Clean surface up front. Product is intended for cleaning and disinfection in one step. Fill the bucket with diluted product and distribute across floor using floor mop, wipe the surface with clean, dry floor mop and let air dry.

2.1.49.2 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 7. Do not breathe vapours/spray. For spraying: The area of the surfaces to be disinfected (in m²) must not be larger than 1/10 of the room volume (in m³) e.g. in the room volume 120 m^3 maximum surface to be disinfected is 12 m^2.

2.1.49.2 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 7.

2.1.49.2 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 7.

2.1.49.2 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 7.

2.1.49.3 Use description

Table 27. Use # 7.3 – **Disinfection of non-food contact surfaces in institutional applications by mopping using flat mop and bucket**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoor Routine disinfection of large surfaces in large non-food areas.
Application method(s)	Mopping using mop and bucket
Dilution (%)	7.5-10
Application rate(s) and frequency	Application rate: 20 mL/m^2 Contact times for mopping at 20^{0}C in clean conditions: – 5 min for bacteria and yeasts (10 % dilution);

	– 15 min for bacteria (7.5 % dilution). Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5L Light precluding HDPE Canister, 1-100L Light precluding HDPE Pouch, 0.01-1L Light precluding HDPE Jug, 0.5-5L

2.1.49.3 Use-specific instructions for use

See general directions for use of Meta-SPC 7. Clean surface up front. Product is intended for cleaning and disinfection in one step. Fill the bucket with diluted product and distribute across floor using floor mop, wipe the surface with clean, dry floor mop and let air dry. Do not rinse after use.

2.1.49.3 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 7.

2.1.49.3 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 7.

2.1.49.3 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 7.

2.1.49.3 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 7.

2.1.49.4 Use description

Table 28. Use # 7.4 – **Disinfection of non-food contact surfaces in institutional applications by spraying using wall mounted device**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoor Routine disinfection of large surfaces in large non-food and food areas.
Application method(s)	Spraying with a wall mounted device
Dilution (%)	7.5-15

Application rate(s) and frequency	Application rate: 180 mL/m^2 Contact times for spraying at 20^0C in clean conditions: – 5 min for bacteria and yeasts (10 % dilution); – 15 min for bacteria (7.5 % dilution). Contact times for spraying at 20^0C in dirty conditions: – 5 min for bacteria (10 % dilution). – 5 min for yeasts (15 % dilution). – 15 min for bacteria (7.5 % dilution). Application frequency: once per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5L Light precluding HDPE Canister, 1-100L Light precluding HDPE Pouch, 0.01-1L Light precluding HDPE Jug, 0.5-5L

2.1.49.4 Use-specific instructions for use

See general directions for use of Meta-SPC 7. When used under clean conditions: clean surface up front. Apply product via wall mounted device. Rinsing is required following application.

2.1.49.4 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 7. Do not breathe vapours/spray. Ensure technical ventilation (at least 15 air exchanges/hour).

2.1.49.4 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 7.

2.1.49.4 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 7.

2.1.49.4 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 7.

2.1.49.5 Use description

Table 29. Use # 7.5 – **Disinfection of food contact surfaces in institutional applications by spraying using trigger sprayer**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**

Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoors Routine disinfection of large surfaces in large food areas (e.g. kitchens).
Application method(s)	Spraying using trigger sprayer and dry wipe
Dilution (%)	7.5-15
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for spraying at 20^0C in clean conditions: – 5 min for bacteria and yeasts (10 % dilution); – 15 min for bacteria (7.5 % dilution). Contact times for spraying at 20^0C in dirty conditions: – 5 min for bacteria (10 % dilution). – 5 min for yeasts (15 % dilution). – 15 min for bacteria (7.5 % dilution). Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5L Light precluding HDPE Canister, 1-100L Light precluding HDPE Pouch, 0.01-1L Light precluding HDPE Jug, 0.5-5L

2.1.49.5 Use-specific instructions for use

See general directions for use of Meta-SPC 7.

When used under clean conditions: clean surface up front. For optimum results hold bottle upright and spray from a distance of 10 cm to 20 cm. Spray the diluted product onto the surface, wipe the surface with clean, dry wipe and let air dry. Always close the nozzle after use. Do not rinse after use. Used wipes must be disposed in a closed container.

2.1.49.5 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 7.
Do not breathe vapours/spray.
Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.
The area of the surfaces to be disinfected (in m^2) must not be larger than 1/10 of the room volume (in m^3) e.g. in the room volume 120 m^3 maximum surface to be disinfected is 12 m^2.

2.1.49.5 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 7.

2.1.49.5 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 7.

2.1.49.5 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 7.

2.1.50 General directions for use of the meta SPC 7

2.1.50.1 Instructions for use

See use-specific instruction for use of Meta-SPC 7. Always read the label or leaflet before use and follow all the instructions. Product should be applied to a dry surface. Wet surfaces completely. Do not use on surfaces sensitive to oxidative agents such as marble, copper or brass. Dilution instruction (7.5%): to produce 1L of diluted surface disinfectant add 75 mL of the concentrated product to approximately 500 mL of distilled water or water of equal quality (e.g. demineralized), mix and fill up to 1L with distilled water or water of equal quality. Dilution instruction (10%): to produce 1L of diluted surface disinfectant add 100 mL of the concentrated product to approximately 500 mL of distilled water or water of equal quality (e.g. demineralized), mix and fill up to 1L with distilled water or water of equal quality. Dilution instruction (15%): to produce 1L of diluted surface disinfectant add 150 mL of the concentrated product to approximately 500 mL of distilled water or water of equal quality (e.g. demineralized), mix and fill up to 1L with distilled water or water of equal quality.

2.1.50.2 Risk mitigation measures

See use-specific instruction for use of Meta-SPC 7. Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). The use of eye protection during handling of the product is mandatory.

2.1.50.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENITAL HEALTH EFFECTS

Eyes: Causes serious eye damage.

Skin: Causes severe skin burns.

Ingestion: Causes digestive tract burns.

Inhalation: May cause nose, throat, and lung irritation.

Chronic Exposure: Health injuries are not known or expected under normal use.

FIRST AID MEASURES

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact: Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled: Remove to fresh air. Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

ENVIRONMENTAL EMERGENCY MEASURES

Do not allow contact with soil, surface or ground water.

Consider the provision of containment around storage vessels.

2.1.50.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging: Dispose of container in accordance with national regulations.

2.1.50.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Storage temperature: 0-25 °C. Protect from frost.
Shelf life: 18 months

2.1.51 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 7

2.1.52 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Incidin OxyConcentrate UltraSan Floor				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	4.95
Capryleth-9 Carboxylic acid (mixture of alkyl ether carboxylic acid)	Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(octyloxy)- (4-11 EO)	Non-active substance	53563-70-5	not assigned	2.15
Hexeth-4 Carboxylic Acid (mixture of alkyl ether carboxylic acid)	Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(hexyloxy)- (3 EO)	Non-active substance	105391-15-9	not assigned	0.62

2.1.53 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Incidin OxyConcentrate FF Kitchen Pro Oxy Des Super Concentrate CidalSan Large Area				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	4.95
Capryleth-9 Carboxylic acid (mixture of alkyl ether carboxylic	Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-	Non-active substance	53563-70-5	not assigned	2.15

acid)	.omega.-(octyloxy)- (4-11 EO)				
Hexeth-4 Carboxylic Acid (mixture of alkyl ether carboxylic acid)	Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(hexyloxy)- (3 EO)	Non-active substance	105391-15-9	not assigned	0.62

PART II - SECOND INFORMATION LEVEL - META SPC 8

2.1.54 Meta SPC 8 administrative information

2.1.54.1 Meta SPC identifier

Identification	META SPC 8

2.1.54.2 Suffix to the authorisation number

Number	1-8

2.1.54.3 Product type(s)

Product type(s)	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) PT04 - Food and feed area (Disinfectants)

2.1.55 Meta SPC 8 composition

2.1.55.1 Qualitative and quantitative information on the composition of the meta SPC 8

Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**	
					Min	**Max**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1	1

2.1.55.2 Type(s) of formulation of the meta SPC 8

AL - Any other liquid

2.1.56 Hazard and precautionary statements according to Regulation (EC) 1272/2008 of the meta SPC 8

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification	
Hazard category	Not classified
Hazard statement	
Labelling	
Hazard Pictogram	-
	-
Signal words	-
Hazard statements	-
Precautionary statements	-
Note	

2.1.57Authorised use(s) of the META SPC 8

2.1.57.1 Use description

Table 30. Use # 8.1 – **Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by wiping using impregnated RTU wipes**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Mycobacteria
Field of use	Indoor Disinfection of surfaces in industry (e.g. dining areas, bathrooms)
Application method(s)	Wiping using impregnated RTU wipes
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponding to 10 mL/m^2) Contact time for wiping at 10^0C in dirty conditions: – 5 minutes for bacteria and yeasts. Contact times for wiping at 20^0C in dirty conditions: – 2 minutes for bacteria; – 5 minutes for yeasts; – 15 min for fungi; – 60 min for mycobacteria. Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PP Bucket with 10-5000 impregnated 60% polyester / 40% lyocell blend or non-woven 100% polypropylene wipes (wipe size: 200x250 mm or 200x200 mm). Light precluding PP Pouch with 10-5000 impregnated 60% polyester / 40% lyocell blend or non-woven 100%

	polypropylene wipes (wipe size: 200x250 mm or 200 x 200 mm).

2.1.57.1 Use-specific instructions for use

See general directions for use of Meta-SPC 8.

2.1.57.1 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 8.

2.1.57.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 8.

2.1.57.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 8.

2.1.57.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 8.

2.1.57.2 Use description

Table 31. Use # 8.2 – **Disinfection of food contact surfaces in food and beverage industry by wiping using impregnated RTU wipes**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Mycobacteria
Field of use	Indoor Disinfection of small surfaces in food processing plant
Application method(s)	Wiping using impregnated RTU wipes
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponding to 10 mL/m^2) Contact time for wipinf at 10^0C in dirty conditions: – 5 minutes for bacteria and yeasts. Contact times for wiping at 20^0C in dirty conditions: – 2 minutes for bacteria; – 5 minutes for yeasts; – 15 min for fungi; – 60 min for mycobacteria. Application frequency: up to 10 times per day per room.
Category(ies) of users	Professional

Pack sizes and packaging material	Light precluding PP Bucket with 10-5000 impregnated 60% polyester / 40% lyocell blend or non-woven 100% polypropylene wipes (wipe size: 200x250 mm or 200x200 mm). Light precluding PP Pouch with 10-5000 impregnated 60% polyester / 40% lyocell blend or non-woven 100% polypropylene wipes (wipe size: 200x250 mm or 200x200 mm).

2.1.57.2 Use-specific instructions for use

See general directions for use of Meta-SPC 8.

2.1.57.2 Use-specific risk mitigation measures

Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.

2.1.57.2 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 8.

2.1.57.2 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 8.

2.1.57.2 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 8.

2.1.57.3 Use description

Table 32. Use # 8.3 – **Disinfection of non-food contact surfaces in health care applications by wiping using impregnated RTU wipes**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Mycobacteria
Field of use	Indoor Routine disinfection of smaller surfaces in hospital rooms and medical practices that are not frequently touched by people
Application method(s)	Wiping using impregnated RTU wipes
Dilution (%)	RTU product

Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponding to 10 mL/m^2) Contact time for wiping at 10^0C in dirty conditions: – 5 minutes for bacteria and yeasts. Contact times for wiping at 20^0C in dirty conditions: – 15 minutes for bacteria, yeasts and fungi; – 60 min for mycobacteria. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PP Bucket with 10-5000 impregnated 60% polyester / 40% lyocell blend or non-woven 100% polypropylene wipes (wipe size: 200x250 mm or 200x200 mm). Light precluding PP Pouch with 10-5000 impregnated 60% polyester / 40% lyocell blend or non-woven 100% polypropylene wipes (wipe size: 200x250 mm or 200x200 mm).

2.1.57.3 Use-specific instructions for use

See general directions for use of Meta-SPC 8. Routine disinfection: Disinfection of surfaces, which might be contaminated with pathogens during medical or nursing processes on a regular basis to reduce the risk of transmission of such organisms via surfaces.

2.1.57.3 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 8.

2.1.57.3 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 8.

2.1.57.3 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 8.

2.1.57.3 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 8.

2.1.58 General directions for use of the meta SPC 8

2.1.58.1 Instructions for use

Product is intended for cleaning and disinfection in one step. Always read the label or leaflet before use and follow all the instructions. Product should be applied to a dry surface. Wet surfaces completely. After use of the product allow surface to air dry. Do not rinse after use. Close container when not in use. Do not use wipes after dehydration. Throw away the container when empty. Do not use on surfaces sensitive to oxidative agents such as marble, copper or brass. Used wipes must be disposed in a closed container.

2.1.58.2 Risk mitigation measures

None

2.1.58.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENTIAL HEALTH EFFECTS Eyes: Health injuries are not known or expected under normal use. Skin: Health injuries are not known or expected under normal use. Ingestion: Health injuries are not known or expected under normal use. Inhalation: Health injuries are not known or expected under normal use. Chronic Exposure: Health injuries are not known or expected under normal use. FIRST AID MEASURES In case of eye contact: Rinse with plenty of water. In case of skin contact: Rinse with plenty of water. If swallowed: Rinse mouth. Get medical attention if symptoms occur. If inhaled: Get medical attention if symptoms occur. ENVIRONMENTAL EMERGENCY MEASURES Do not allow contact with soil, surface or ground water. Consider the provision of containment around storage vessels.

2.1.58.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility. Contaminated packaging: Dispose of container in accordance with national regulations.

2.1.58.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers. Storage temperature: 0-35 °C. Protect from frost. Shelf life: 6 months

2.1.59 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 8

2.1.60 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	DrySan Oxy Wipes Incidin OxyWipe				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1

PART II - SECOND INFORMATION LEVEL - META SPC 9

2.1.61 Meta SPC 9 administrative information

2.1.61.1 Meta SPC identifier

Identification	META SPC 9

2.1.61.2 Suffix to the authorisation number

Number	1-9

2.1.61.3 Product type(s)

Product type(s)	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) PT04 - Food and feed area (Disinfectants)

2.1.62 Meta SPC 9 composition

2.1.62.1 Qualitative and quantitative information on the composition of the meta SPC 9

Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**	
					Min	**Max**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	7	7.7
Phosphoric acid	Orthophosphoric acid	Non-active substance	7664-38-2	231-633-2	1.5	1.5
Nitric acid	Nitric acid	Non-active substance	7697-37-2	231-714-2	3.71	3.71

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
Alcohol EO phosphate ester	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates	Non-active substance	68130-47-2	not indicated	14.625	14.625
Alkylpolyglycoside C8-C10	(3R,4S,5S,6R)-2-decoxy-6-(hydroxymethyl)oxane-3,4,5-triol	Non-active substance	68515-73-1	500-220-1	6.35	6.35
Alcohols, C10-C16 ethoxylated propoxylated (Dehydol 980)	Alcohols, C10-C16 ethoxylated propoxylated	Non-active substance	69227-22-1	not indicated	3.0	3.0

2.1.62.2 Type(s) of formulation of the meta SPC 9

SL - Soluble concentrate

2.1.63 Hazard and precautionary statements according to Regulation (EC) 1272/2008 of the meta SPC 9

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification	
Hazard category	Met. Corr. 1 Skin Corr. 1B Eye Dam. 1
Hazard statement	H290: May be corrosive to metals. H314: Causes severe skin burns and eye damage H318: Causes serious eye damage
Labelling	
Hazard Pictogram	 GHS05: Corrosion
Signal words	Danger
Hazard statements	H290: May be corrosive to metals. H314: Causes severe skin burns and eye damage
Precautionary statements	P234: Keep only in original packaging. P264: Wash hands thoroughly after handling. P260: Do not breathe vapours/spray. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated CLOTHING. Rinse skin with water. P304 + P340: If INHALED: Remove person to fresh air and keep comfortable for breathing. P310: Immediately call a POISON CENTER/doctor. P321: Specific treatment (see first aid instruction on this label). P363: Wash contaminated clothing before reuse. P390: Absorb spillage to prevent material damage. P406: Store in a corrosion-resistant container with a resistant inner liner. P405: Store locked up. P501: Dispose of contents/container in accordance with national regulations.
Note	

Article 69 (1) of the Regelation (EU) No 528/2012 establishes that the authorisation holder shall ensure that biocidal products are classified and labelled in accordance with the Regulation (EC) No 1272/2008.

2.1.64Authorised use(s) of the META SPC 9

2.1.64.1 Use description

Table 33. Use # 9.1 – **Disinfection of non-food contact surfaces in health care applications by wiping using clean single use cloth/ wipe and bucket**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses
Field of use	Indoor Routine and non-routine disinfection of smaller surfaces in hospital rooms and medical practices that are frequently touched by people and that are not frequently touched
Application method(s)	Wiping using cloth/wipe and bucket
Dilution (%)	3-5
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for wiping at 20^{0}C in dirty conditions: – 5 min for bacteria (5% dilution); – 5 min for yeasts (3% dilution); – 5 min for fungi (4% dilution); – 50 min for viruses (5% dilution). Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5 L Light precluding HDPE Jug, 0.5-5 L Light precluding HDPE Pouch, 0.01-1L

2.1.64.1 Use-specific instructions for use

See general directions for use of Meta-SPC 9.
Routine disinfection: Disinfection of surfaces, which might be contaminated with pathogens during medical or nursing processes on a regular basis to reduce the risk of transmission of such organisms via surfaces.
Non routine disinfection: Disinfection in specific risk situations (unless differently regulated by national public health authorities).

Product is intended for cleaning and disinfection in one step. Pour diluted product in a clean bucket and distribute across surface using single cloth/wipe, wipe the surface with clean cloth/wipe and let air dry. Do not rinse after use. Used wipes must be disposed in a closed container.

2.1.64.1 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 9.

2.1.64.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 9.

2.1.64.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 9.

2.1.64.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 9.

2.1.64.2 Use description

Table 34. Use # 9.2 – **Disinfection of non-food contact surfaces in health care applications by mopping using flat mop and bucket**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses
Field of use	Indoor Routine and non-routine disinfection of larger surfaces in hospital rooms and medical practices that are frequently touched by people and that are not frequently touched
Application method(s)	Mopping using mop and bucket
Dilution (%)	3-5
Application rate(s) and frequency	Application rate: 20 mL/m^2 Contact times for mopping at 20^0Cin dirty conditions: – 5 min for bacteria (5% dilution); – 5 min for yeasts (3% dilution); – 5 min for fungi (4% dilution); – 50 min for viruses (5% dilution); Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5 L Light precluding HDPE Jug, 0.5-5 L Light precluding HDPE Pouch, 0.01-1L

2.1.64.2 Use-specific instructions for use

See general directions for use of Meta-SPC 9. Routine disinfection: Disinfection of surfaces, which might be contaminated with pathogens during medical or nursing processes on a regular basis to reduce the risk of transmission of such organisms via surfaces. Non routine disinfection: Disinfection in specific risk situations (unless differently regulated by national public health authorities).

Product is intended for cleaning and disinfection in one step. Fill the bucket with diluted product and distribute across floor using floor mop, wipe the surface with clean, dry floor mop and let air dry. Do not rinse after use.

2.1.64.2 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 9.

2.1.64.2 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 9.

2.1.64.2 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 9.

2.1.64.2 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 9.

2.1.64.3 Use description

Table 35. Use # 9.3 – **Disinfection of non-food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe or by wiping using single-use cloth and bucket and/or floors by mopping using flat mop and bucket**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses
Field of use	Indoor Routine disinfection of small and/or large surfaces in small non-food areas (e.g. bathrooms)
Application method(s)	Spraying using trigger sprayer and dry wipe Wiping using cloth/wipe and bucket Mopping using mop and bucket Spraying using trigger sprayer and dry wipe and mopping using mop and bucket Wiping using cloth/wipe and bucket and mopping using mop and bucket
Dilution (%)	3-5
Application rate(s) and frequency	Application rate for spraying: 10 mL/m^2 Application rate for wiping: 10 mL/m^2

	Application rate for mopping: 20 mL/m^2 Contact times for spraying, wiping and mopping at 20^0C in dirty conditions: – 5 min for bacteria (5% dilution); – 5 min for yeasts (3% dilution); – 5 min for fungi (4% dilution); – 50 min for viruses (5% dilution). Application frequency: Spraying trigger sprayer: up to 10 times per day per room Wipping: up to 10 times per day per room Mopping: up to 2 times per day per room Spraying trigger sprayer and mopping: 1 time per day per room. Wippping and mopping: 1 time per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5 L Light precluding HDPE Jug, 0.5-5 L Light precluding HDPE Pouch, 0.01-1L

2.1.64.3 Use-specific instructions for use

See general directions for use of Meta-SPC 9.
Do not rinse after use.

Spraying: For optimum results hold bottle upright and spray from a distance of 30 cm. Spray the diluted product onto a dry wipe and wipe small surfaces such as worktops and equipment or spray the product onto the surface, wipe the surface with clean, dry wipe or let air dry. Always close the nozzle after use. Used wipes must be disposed in a closed container.

Wiping: Pour diluted product in a clean bucket and distribute across surface using single cloth/wipe, wipe the surface with cloth/wipe and let air dry. Used wipes must be disposed in a closed container.

Mopping: Fill the bucket with diluted product and distribute across floor using floor mop, wipe the surface with clean, dry floor mop and let air dry.

2.1.64.3 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 9.
Do not breathe vapours/spray.
For spraying: The area of the surfaces to be disinfected (in m^2) must not be larger than 1/10 of the room volume (in m^3) e.g. in the room volume 120 m^3 maximum surface to be disinfected is 12 m^2.

2.1.64.3 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 9.

2.1.64.3 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 9.

2.1.64.3 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 9.

2.1.64.4 Use description

Table 36. Use # 9.4 – **Disinfection of non-food contact surfaces in institutional application by mopping using flat mop and bucket**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses
Field of use	Indoor Routine disinfection of large surfaces in large non-food areas.
Application method(s)	Mopping using mop and bucket
Dilution (%)	3-5
Application rate(s) and frequency	Application rate: 20 mL/m^2 Contact times for mopping at 20^0C in dirty conditions: – 5 min for bacteria (5% dilution); – 5 min for yeasts (3% dilution); – 5 min for fungi (4% dilution); – 50 min for viruses (5% dilution). Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5 L Light precluding HDPE Jug, 0.5-5 L Light precluding HDPE Pouch, 0.01-1L

2.1.64.4 Use-specific instructions for use

See general directions for use of Meta-SPC 9. Fill the bucket with diluted product and distribute across floor using floor mop, wipe the surface with clean, dry floor mop and let air dry. Do not rinse after use.

2.1.64.4 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 9. Ensure technical ventilation (at least 15 air exchanges/hour).

2.1.64.4 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 9.

2.1.64.4 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 9.

2.1.64.4 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 9.

2.1.64.5 Use description

Table 37. Use # 9.5 – **Disinfection of non-food contact surfaces in institutional applications by spraying using wall mounted device**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoor Routine disinfection of large surfaces in large non-food and food areas.
Application method(s)	Spraying with a wall mounted device
Dilution (%)	1.5 - 3
Application rate(s) and frequency	Application rate: 180 mL/m^2 Contact time for spraying at 20^0C in dirty conditions: – 5 min for bacteria and yeasts (3% dilution); Contact times for spraying at 20^0C in clean conditions: – 5 min for bacteria (1.5 % dilution); – 15 min for yeasts (2% dilution). Application frequency: 1 time per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5 L Light precluding HDPE Jug, 0.5-5 L Light precluding HDPE Pouch, 0.01-1L

2.1.64.5 Use-specific instructions for use

See general directions for use of Meta-SPC 9. When used under clean conditions: clean surface up front. Apply product via wall mounted device. Rinsing is required following application.

2.1.64.5 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 9. Do not breathe vapours/spray. Ensure technical ventilation (at least 15 air exchanges/hour).

2.1.64.5 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 9.

2.1.64.5 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 9.

2.1.64.5 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 9.

2.1.64.6 Use description

Table 38. Use # 9.6 – **Disinfection of food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses
Field of use	Indoor Routine disinfection of large surfaces in large food areas (e.g. kitchens).
Application method(s)	Spraying using trigger spray and dry wipe
Dilution (%)	3-5
Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for spraying and wiping at 20^0C in dirty conditions: – 5 min for bacteria (5% dilution); – 5 min for yeasts (3% dilution); – 5 min for fungi (4% dilution); – 50 min for viruses (5% dilution). Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5 L Light precluding HDPE Jug, 0.5-5 L Light precluding HDPE Pouch, 0.01-1L

2.1.64.6 Use-specific instructions for use

See general directions for use of Meta-SPC 9. For optimum results hold bottle upright and spray from a distance of 30 cm. Spray the diluted product onto a dry wipe and wipe small surfaces such as worktops and equipment or spray the product onto the surface, wipe the surface with clean, dry wipe and let air dry. Always close the nozzle after use. Do not rinse after use. Used wipes must be disposed in a closed container.

2.1.64.6 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 9. Do not breathe vapours/spray. Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks. The area of the surfaces to be disinfected (in m^2) must not be larger than 1/10 of the room volume (in m^3) e.g. in the room volume 120 m^3 maximum surface to be disinfected is 12 m^2.

2.1.64.6 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 9.

2.1.64.6 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 9.

2.1.64.6 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 9.

2.1.64.7 Use description

Table 39. Use # 9.7 – **Disinfection of food contact surfaces in institutional applications by wiping using single-use cloth and bucket**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses
Field of use	Indoor Routine disinfection of large surfaces in large food areas (e.g. kitchens)
Application method(s)	Wiping using cloth/wipe and bucket
Dilution (%)	3-5

Application rate(s) and frequency	Application rate: 10 mL/m^2 Contact times for wiping at 20^0C in dirty conditions: – 5 min for bacteria (5% dilution); – 5 min for yeasts (3% dilution); – 5 min for fungi (4% dilution); – 50 min for viruses (5% dilution). Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Bottle, 0.5-5 L Light precluding HDPE Jug, 0.5-5 L Light precluding HDPE Pouch, 0.01-1L

2.1.64.7 Use-specific instructions for use

See general directions for use of Meta-SPC 9.

Pour diluted product in a clean bucket and distribute across surface using single cloth/wipe, wipe the surface with clean cloth/wipe and let air dry. Do not rinse after use. Used wipes must be disposed in a closed container.

2.1.64.7 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 9.
Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.

2.1.64.7 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 9.
Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.

2.1.64.7 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 9.

2.1.64.7 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 9.

2.1.65 General directions for use of the meta SPC 9

2.1.65.1 Instructions for use

See use-specific instruction for use of Meta-SPC 9.

Always read the label or leaflet before use and follow all the instructions. Product should be applied to a dry surface. Do not use on surfaces sensitive to oxidative agents such as marble, copper or brass.

Dilution instruction (1.5 %): to produce 1L of diluted surface disinfectant add 15 mL of the concentrated product to approximately 500 mL of distilled water or water of equal quality (e.g. demineralized), mix and fill up to 1L with distilled water or water of equal quality.

Dilution instruction (2%): to produce 1L of diluted surface disinfectant add 20 mL of the concentrated product to approximately 500 mL of distilled water or water of equal quality (e.g. demineralized), mix and fill up to 1L with distilled water or water of equal quality.

Dilution instruction (3%): to produce 1L of diluted surface disinfectant add 30 mL of the concentrated product to approximately 500 mL of distilled water or water of equal quality (e.g. demineralized), mix and fill up to 1L with distilled water or water of equal quality.

Dilution instruction (4%): to produce 1L of diluted surface disinfectant add 40 mL of the concentrated product to approximately 500 mL of distilled water or water of equal quality (e.g. demineralized), mix and fill up to 1L with distilled water or water of equal quality.

Dilution instruction (5%): to produce 1L of diluted surface disinfectant add 50 mL of the concentrated product to approximately 500 mL of distilled water or water of equal quality (e.g. demineralized), mix and fill up to 1L with distilled water or water of equal quality.

2.1.65.2 Risk mitigation measures

See use-specific instruction for use of Meta-SPC 9.
Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information).
The use of eye protection during handling of the product is mandatory.

2.1.65.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENTIAL HEALTH EFFECTS

Eyes: Causes serious eye damage.

Skin: Causes severe skin burns.

Ingestion: Causes digestive tract burns.

Inhalation: May cause nose, throat, and lung irritation.

Chronic Exposure: Health injuries are not known or expected under normal use.

FIRST AID MEASURES

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact: Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled: Remove to fresh air. Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

ENVIRONMENTAL EMERGENCY MEASURES

Do not allow contact with soil, surface or ground water.

Consider the provision of containment around storage vessels.

2.1.65.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging: Dispose of container in accordance with national regulations.

2.1.65.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Storage temperature: 0-25 °C. Protect from frost.
Shelf life: 18 months

2.1.66 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 9

2.1.67 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	KitchenPro Oxy Des Concentrate Incidin OxyPro				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	7.0
Phosphoric acid	Orthophosphoric acid	Non-active substance	7664-38-2	231-633-2	1.5
Nitric acid	Nitric acid	Non-active substance	7697-37-2	231-714-2	3.71
Alcohol EO phosphate ester	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates	Non-active substance	68130-47-2	not indicated	14.625
Alkylpolyglycoside C8-C10	(3R,4S,5S,6R)-2-decoxy-6-(hydroxymethyl) oxane-3,4,5-triol	Non-active substance	68515-73-1	500-220-1	6.35
Alcohols, C10-C16 ethoxylated propoxylated (Dehydol 980)	Alcohols, C10-C16 ethoxylated propoxylated	Non-active substance	69227-22-1	not indicated	3.00

2.1.68 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Oasis Pro Oxy Des Maxx Oxy Des 2
Authorisation number	

Common name	IUPAC name	Function	CAS number	EC number	Content (%)
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	7.0
Phosphoric acid	Orthophosphoric acid	Non-active substance	7664-38-2	231-633-2	1.5
Nitric acid	Nitric acid	Non-active substance	7697-37-2	231-714-2	3.71
Alcohol EO phosphate ester	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates	Non-active substance	68130-47-2	not indicated	14.625
Alkylpolyglycoside C8-C10	(3R,4S,5S,6R)-2-decoxy-6-(hydroxymethyl) oxane-3,4,5-triol	Non-active substance	68515-73-1	500-220-1	6.35
Alcohols, C10-C16 ethoxylated propoxylated (Dehydol 980)	Alcohols, C10-C16 ethoxylated propoxylated	Non-active substance	69227-22-1	not indicated	3.00

PART II - SECOND INFORMATION LEVEL - META SPC 10

2.1.69 Meta SPC 10 administrative information

2.1.69.1 Meta SPC identifier

Identification	META SPC 10

2.1.69.2 Suffix to the authorisation number

Number	1-10

2.1.69.3 Product type(s)

Product type(s)	PT01 - Human hygiene (Disinfectants)

2.1.70 Meta SPC 10 composition

2.1.70.1 Qualitative and quantitative information on the composition of the meta SPC 10

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1.4	1.61
Citric acid monohydrate	2-hydroxypropane -1,2,3-tricarboxylic acid	Non-active substance	5949-29-1	201-069-1	0.9	0.9
Phenoxyethanol	2-Phenoxyethanol	Non-active substance	122-99-6	204-589-7	0.9	0.9
Sodium lauryl Sulphate	Sodium dodecyl sulphate	Non-active substance	151-21-3	205-788-1	3.88	3.88
Sodium caprylolglutamate	Sodium;(4S)-4-amino-5-hydroxy-5-oxopentanoate	Non-active substance	68187-32-6	269-087-2	2.00	2.00
Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (Texapon ALS)	Sulfuric acid. Mono-C12-14-alkyl esters. ammonium salts	Non-active substance	90583-11-2	292-209-0	1.12	1.12

2.1.70.2 Type(s) of formulation of the meta SPC 10

GW - Water soluble gel

2.1.71 Hazard and precautionary statements according to Regulation (EC) 1272/2008 of the meta SPC 10

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification	
Hazard category	Met. Corr. 1 Eye Irrit. 2
Hazard statement	H290: May be corrosive to metals. H319: Causes serious eye irritation
Labelling	
Hazard Pictogram	
	GHS07: Exclamation mark
Signal words	Warning
Hazard statements	H290: May be corrosive to metals H319: Causes serious eye irritation
Precautionary statements	P234: Keep only in original packaging. P264: Wash hands thoroughly after handling. P280: Wear eye protection/face protection. P390: Absorb spillage to prevent material damage. P406: Store in a corrosion-resistant container with a resistant inner liner. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313: If eye irritation persists: Get medical advice/attention.
Note	

Article 69 (1) of the Regelation (EU) No 528/2012 establishes that the authorisation holder shall ensure that biocidal products are classified and labelled in accordance with the Regulation (EC) No 1272/2008.

2.1.72Authorised use(s) of the META SPC 10

2.1.72.1 Use description

Table 40. Use # 10.1 – **Hygienic hand wash**

Product Type	PT01 - Human hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoor Antimicrobial hand soap, intended only as hygienic hand wash for food and beverage industry
Application method(s)	Direct application onto skin
Dilution (%)	RTU product

Application rate(s) and frequency	Application rate: 3 mL of product per application Contact time at 20 C in dirty conditions: – 60 seconds for bacteria and yeasts. Application frequency: 1-10 times/day
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding HDPE Jug, 1-100L Light precluding HDPE Jerry can, 1-100L Light precluding HDPE IBC, 600-1000L Light precluding HDPE Drum, 60-220L Light precluding HDPE Bottle, 0.1-5L Light precluding HDPE Pouch, 0.5-100L

2.1.72.1 Use-specific instructions for use

See general directions for use of Meta-SPC 10.

2.1.72.1 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 10.

2.1.72.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 10.

2.1.72.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 10.

2.1.72.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 10.

2.1.73 General directions for use of the meta SPC 10

2.1.73.1 Instructions for use

Apply approximately 3 ml of product to wet hands and rub for 60 seconds. Rinse thoroughly with running tap water for about 30 seconds.

2.1.73.2 Risk mitigation measures

Avoid splashes and spills. Avoid hand to eye transfer.

2.1.73.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENTIAL HEALTH EFFECTS

Eyes: Causes serious eye irritation.

Skin: Health injuries are not known or expected under normal use.

Ingestion: Health injuries are not known or expected under normal use.

Inhalation: Health injuries are not known or expected under normal use.

Chronic Exposure: Health injuries are not known or expected under normal use.

FIRST AID MEASURES

In case of eye contact: Rinse with water.

In case of skin contact: Rinse with water.

If swallowed: Rinse mouth. Get medical attention if symptoms occur.

If inhaled: Get medical attention if symptoms occur.

ENVIRONMENTAL EMERGENCY MEASURES

Do not allow contact with soil, surface or ground water.

Consider the provision of containment around storage vessels.

2.1.73.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging: Dispose of container in accordance with national regulations.

2.1.73.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Storage temperature: 0-25°C
Shelf life: 18 months

2.1.74 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 10

2.1.75 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Manosan Oxy				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1.4
Citric acid monohydrate	2-hydroxypropane-1,2,3-tricarboxylic acid	Non-active substance	5949-29-1	201-069-1	0.9
Phenoxyethanol	2-Phenoxyethanol	Non-active substance	122-99-6	204-589-7	0.9
Sodium lauryl Sulphate	Sodium dodecyl sulphate	Non-active substance	151-21-3	205-788-1	3.88
Sodium caprylolglutamate	Sodium;(4S)-4-amino-5-hydroxy-5-oxopentanoate	Non-active substance	68187-32-6	269-087-2	2.00
Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (Texapon ALS)	Sulfuric acid. Mono-C12-14-alkyl esters. ammonium salts	Non-active substance	90583-11-2	292-209-0	1.12

PART II - SECOND INFORMATION LEVEL - META SPC 11

2.1.76 Meta SPC 11 administrative information

2.1.76.1 Meta SPC identifier

Identification	META SPC 11

2.1.76.2 Suffix to the authorisation number

Number	1-11

2.1.76.3 Product type(s)

Product type(s)	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) PT04 - Food and feed area (Disinfectants)

2.1.77 Meta SPC 11 composition

2.1.77.1 Qualitative and quantitative information on the composition of the meta SPC 11

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1.5	1.5

2.1.77.2 Type(s) of formulation of the meta SPC 11

AL - Any other liquid

2.1.78 Hazard and precautionary statements according to Regulation (EC) 1272/2008 of the meta SPC 11

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification	
Hazard category	Not classified
Hazard statement	
Labelling	
Hazard Pictogram	-
	-
Signal words	-
Hazard statements	-
Precautionary statements	-
Note	

2.1.79 Authorised use(s) of the META SPC 11

2.1.79.1 Use description

Table 41. Use # 11.1 – **Disinfection of life sciences cleanrooms by wiping using impregnated RTU wipes (Meta-SPC 11 c)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses Bacterial spores Bacterial spores - *Clostridium difficile*

	Mycobacteria
Field of use	Indoor Disinfection of small surfaces, materials and equipment in Life Sciences Cleanroom and supporting environments (e.g. pharmaceutical industry) and transfer disinfection.
Application method(s)	Wiping using impregnated RTU wipes
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponding to 10 mL/m2) Contact times for wiping at 20^0C in dirty conditions: – 5 min for bacteria, yeasts, fungi and mycobacteria; – 30 min for viruses; – 60 min for bacterial spores. Contact times for wiping at 20^0C in clean conditions: – 5 min for *Clostridium difficile* spores; – 30 min for bacterial spores Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PET Bucket with 10-5000 impregnated 45% polyester / 55% cellulose blend wipes (wipe size: 420x250 mm or 200x200 mm).

2.1.79.1 Use-specific instructions for use

See general directions for use of Meta-SPC 11.

2.1.79.1 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 11.

2.1.79.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 11.

2.1.79.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 11.

2.1.79.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 11.

2.1.79.2 Use description

Table 42. Use # 11.2 – **Disinfection of life sciences cleanrooms by mopping using impregnated RTU mop wipes (Meta-SPC 11 c)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)

Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts Fungi Viruses Bacterial spores Bacterial spores - *Clostridium difficile* Mycobacteria
Field of use	Indoor Disinfection of floors in Life Sciences Cleanroom and supporting environments (e.g. pharmaceutical industry).
Application method(s)	Mopping using impregnated RTU mop wipes
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponding to 10 mL/m^2) Contact times for wiping at 20^0C in dirty conditions: – 5 min for bacteria, yeasts, fungi and mycobacteria; – 30 min for viruses; – 60 min for bacterial spores. Contact times for wiping at 20^0C in clean conditions: – 5 min for *Clostridium difficile* spores; – 30 min for bacterial spores Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PET Bucket with 10-5000 impregnated 45% polyester / 55% cellulose blend wipes (wipe size: 420x250 mm or 200x200 mm)

2.1.79.2 Use-specific instructions for use

See general directions for use of Meta-SPC 11.

2.1.79.2 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 11.

2.1.79.2 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 11.

2.1.79.2 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 11.

2.1.79.2 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 11.

2.1.79.3 Use description

Table 43. Use # 11.3 – **Disinfection of non-food contact surfaces in health care applications by wiping using impregnated RTU wipes (Meta-SPC 11 d)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Clean conditions: Bacteria, Yeasts, Fungi, Mycobacteria, Bacterial spores - *Clostridium difficile*, Bacterial spores, Viruses Dirty conditions: Bacteria, Yeasts, Fungi, Mycobacteria, Viruses
Field of use	Indoor Routine disinfection of smaller surfaces in hospital rooms and medical practices that are not frequently touched by people
Application method(s)	Wiping using impregnated RTU wipes
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponding to 10 mL/m^2) Contact times for wiping at 20^{0}C in clean conditions: – 15 min for *Clostridium difficile* spores; – 30 min for bacterial spores, mycobacteria and viruses; Contact times for wiping at 20^{0}C in dirty conditions: – 15 min for bacteria and yeasts; – 30 min for fungi, mycobacteria and viruses. Application frequency: up to 2 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding WIP-pre-printed pouch with 10-100 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm). Light precluding PET canister with 10-1000 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm). Light precluding PET bucket with 10-1000 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm). Light precluding PET pouch with 10-1000 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm).

2.1.79.3 Use-specific instructions for use

See general directions for use of Meta-SPC 11. Routine disinfection: Disinfection of surfaces, which might be contaminated with pathogens during medical or nursing processes on a regular basis to reduce the risk of transmission of such organisms via surfaces.

2.1.79.3 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 11.

2.1.79.3 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 11.

2.1.79.3 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 11.

2.1.79.3 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 11.

2.1.79.4 Use description

Table 44. Use # 11.4 – **Disinfection of non-food contact surfaces in institutional applications by wiping using impregnated RTU wipes (Meta-SPC 11 d)**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Clean conditions: Bacteria, Yeasts, Fungi, Mycobacteria, Bacterial spores - *Clostridium difficile*, Bacterial spores, Viruses Dirty conditions: Bacteria, Yeasts, Fungi, Mycobacteria, Viruses
Field of use	Indoor Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms)
Application method(s)	Wiping using impregnated RTU wipes
Dilution (%)	Ready to use (RTU) product
Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponding to 10 mL/m^2) Contact times for wiping at 20^0C in clean conditions: – 15 min for *Clostridium difficile* spores; – 30 min for bacterial spores, mycobacteria and viruses. Contact times for wiping at 20^0Cin dirty conditions: – 2 min for bacteria; – 15 min for yeasts; – 30 min for fungi, mycobacteria and viruses. Application frequency: up to 10 times per day per room
Category(ies) of users	Professional

Pack sizes and packaging material	Light precluding WIP-pre-printed pouch with 10-100 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm). Light precluding PET canister with 10-1000 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm). Light precluding PET bucket with 10-1000 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm). Light precluding PET pouch with 10-1000 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm).

2.1.79.4 Use-specific instructions for use

See general directions for use of Meta-SPC 11.

2.1.79.4 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 11.

2.1.79.4 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 11.

2.1.79.4 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 11.

2.1.79.4 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 11.

2.1.79.5 Use description

Table 45. Use # 11.5 – **Disinfection of food contact surfaces in institutional applications by wiping using impregnated RTU wipes (Meta-SPC 11 d)**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Clean conditions: Bacteria, Yeasts, Fungi, Mycobacteria, Bacterial spores - *Clostridium difficile*, Bacterial spores, Viruses Dirty conditions: Bacteria, Yeasts, Fungi, Mycobacteria, Viruses
Field of use	Indoor

	Routine disinfection of small surfaces in small food areas (e.g. kitchens).
Application method(s)	Wiping using impregnated RTU wipes
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponding to 10 mL/m^2) Contact times for wiping at 20^0C in clean conditions: – 15 min for *Clostridium difficile* spores; – 30 min for bacterial spores, mycobacteria and viruses. Contact times for wiping at 20^0C in dirty conditions: – 2 min for bacteria; – 15 min for yeasts; – 30 min for fungi, mycobacteria and viruses. Application frequency: up to 10 times per day per room
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding WIP-pre-printed pouch with 10-100 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm). Light precluding PET canister with 10-1000 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm). Light precluding PET bucket with 10-1000 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm). Light precluding PET pouch with 10-1000 impregnated 60% polyester / 40% lyocell blend wipes (wipe size: 420x250 mm or 200x200 mm).

2.1.79.5 Use-specific instructions for use

See general directions for use of Meta-SPC 11.

2.1.79.5 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 11.

Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.

2.1.79.5 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 11.

2.1.79.5 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 11.

2.1.79.5 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 11.

2.1.80 General directions for use of the meta SPC 11

2.1.80.1 Instructions for use

Product is intended for cleaning and disinfection in one step. Always read the label or leaflet before use and follow all the instructions. When used under clean conditions: clean surface up front. Product should be applied to a dry surface. Wet surfaces completely. After use of the product allow surface to air dry. Do not rinse after use. Close container when not in use. Do not use wipes after dehydration. Throw away the container when empty. Do not use on surfaces sensitive to oxidative agents such as marble, copper or brass. Used wipes must be disposed in a closed container.

2.1.80.2 Risk mitigation measures

None

2.1.80.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENTIAL HEALTH EFFECTS

Eyes: Health injuries are not known or expected under normal use.

Skin: Health injuries are not known or expected under normal use.

Ingestion: Health injuries are not known or expected under normal use.

Inhalation: Health injuries are not known or expected under normal use.

Chronic Exposure: Health injuries are not known or expected under normal use.

FIRST AID MEASURES

In case of eye contact: Rinse with plenty of water.

In case of skin contact: Rinse with plenty of water.

If swallowed: Rinse mouth. Get medical attention if symptoms occur.

If inhaled: Get medical attention if symptoms occur.

ENVIRONMENTAL EMERGENCY MEASURES

Do not allow contact with soil, surface or ground water.

Consider the provision of containment around storage vessels.

2.1.80.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging: Dispose of container in accordance with national regulations.

2.1.80.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Storage temperature: 0-35 °C. Protect from frost.

Shelf life: 18 months

2.1.81 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 11

2.1.82 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Klerwipe Sporicidal Enhanced Peroxide				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1.5

2.1.83 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Incidin OxyWipe S KitchenPro Oxy Wipes S				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	1.5

PART II - SECOND INFORMATION LEVEL - META SPC 12

2.1.84 Meta SPC 12 administrative information

2.1.84.1 Meta SPC identifier

Identification	META SPC 12

2.1.84.2 Suffix to the authorisation number

Number	1-12

2.1.84.3 Product type(s)

Product type(s)	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) PT04 - Food and feed area (Disinfectants)

2.1.85 Meta SPC 12 composition

2.1.85.1 Qualitative and quantitative information on the composition of the meta SPC 12

Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**	
					Min	**Max**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	2	2.3
n-propanol	n-propanol	Non-active substance	71-23-8	200-746-9	17.5	17.5

2.1.85.2 Type(s) of formulation of the meta SPC 12

AL - Any other liquid

2.1.86 Hazard and precautionary statements according to Regulation (EC)

Classification and labelling of the products of the family according to the Regulation (EC) 1272/2008

Classification		
Hazard category	Flam. Liq. 3 Eye Dam. 1	
Hazard statement	H226: Flammable liquid and vapour H318: Causes serious eye damage	
Labelling		
Hazard Pictogram		
	GHS05: Corrosion	GHS02: Flame
Signal words	Danger	
Hazard statements	H226: Flammable liquid and vapour H318: Causes serious eye damage	
Precautionary statements	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233: Keep container tightly closed. P240: Ground and bond container and receiving equipment. P241: Use explosion proof electrical/ventilating/ lighting/ equipment. P242: Use non -sparking tools. P243: Take action to prevent static discharges. P280: Wear eye protection/face protection. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P370 + P378: In case of fire: Use water to extinguish. P403 + P235: Store in a wellventilated place. Keep cool. P310: Immediately call a POISON CENTER/doctor. P501: Dispose of contents/container in accordance with national regulations.	
Note		

Article 69 (1) of the Regelation (EU) No 528/2012 establishes that the authorisation holder shall ensure that biocidal products are classified and labelled in accordance with the Regulation (EC) No 1272/2008.

2.1.87Authorised use(s) of the META SPC 12

2.1.87.1 Use description

Table 46. Use # 12.1 – **Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by wiping using impregnated RTU wipes**

Product Type	PT02 - Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants)

Where relevant, an exact description of the authorised use	**-**
Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoor Disinfection of surfaces in industry (e.g. dining areas, bathrooms)
Application method(s)	Wiping using impregnated RTU wipes
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponding to 10 mL/m^2) Contact time for wiping at 10^0C and 20^0C in dirty conditions: – 5 min for bacteria and yeasts. Application frequency: up to 3 times per day
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PP Bucket with 10-5000 impregnated non-woven, 100% polypropylene wipes (wipe size: 200x250 mm). Light precluding PE Pouch with 10-5000 impregnated non-woven, 100% polypropylene wipes (wipe size: 200x250 mm).

2.1.87.1 Use-specific instructions for use

See general directions for use of Meta-SPC 12.

2.1.87.1 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 12.

2.1.87.1 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 12.

2.1.87.1 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 12.

2.1.87.1 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 12.

2.1.87.2 Use description

Table 47. Use # 12.2 – **Disinfection of food contact surfaces in food and beverage industry by wiping using impregnated RTU wipes**

Product Type	PT04 - Food and feed area (Disinfectants)
Where relevant, an exact description of the authorised use	**-**

Target organism (including development stage)	Bacteria Yeasts
Field of use	Indoor Disinfection of small surfaces in food processing plant
Application method(s)	Wiping using impregnated RTU wipes
Dilution (%)	RTU product
Application rate(s) and frequency	Application rate: 1 wipe per m² (corresponding to 10 mL/m^2) Contact time for wiping at 10^0C and 20^0C in dirty conditions: – 5 min for bacteria and yeasts. Application frequency: up to 4 times per day
Category(ies) of users	Professional
Pack sizes and packaging material	Light precluding PP Bucket with 10-5000 impregnated non-woven, 100% polypropylene wipes (wipe size: 200x250 mm). Light precluding PE Pouch with 10-5000 impregnated non-woven, 100% polypropylene wipes (wipe size: 200x250 mm).

2.1.87.2 Use-specific instructions for use

See general directions for use of Meta-SPC 12.

2.1.87.2 Use-specific risk mitigation measures

See general directions for use of Meta-SPC 12. Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.

2.1.87.2 Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See general directions for use of Meta-SPC 12.

2.1.87.2 Where specific to the use, the instructions for safe disposal of the product and its packaging

See general directions for use of Meta-SPC 12.

2.1.87.2 Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See general directions for use of Meta-SPC 12.

2.1.88 General directions for use of the meta SPC 12

2.1.88.1 Instructions for use

Always read the label or leaflet before use and follow all the instructions. Product should be applied to a dry surface. Wet surfaces completely. After use of the products allow surface to air dry. Do not rinse after use. Close container when not in use. Do not use wipes after dehydration. Throw away the container when empty. Do not use on surfaces sensitive to oxidative agents such as marble, copper or brass. Used wipes must be disposed in closed container.

2.1.88.2 Risk mitigation measures

Avoid hand to eye transfer.

2.1.88.3 Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

POTENITAL HEALTH EFFECTS

Eyes: Causes serious eye damage.

Skin: Health injuries are not known or expected under normal use.

Ingestion: Health injuries are not known or expected under normal use.

Inhalation: Health injuries are not known or expected under normal use.

Chronic Exposure: Health injuries are not known or expected under normal use.

FIRST AID MEASURES

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact: Rinse with plenty of water.

If swallowed: Rinse mouth. Get medical attention if symptoms occur.

If inhaled: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

ENVIRONMENTAL EMERGENCY MEASURES

Do not allow contact with soil, surface or ground water.

Consider the provision of containment around storage vessels.

2.1.88.4 Instructions for safe disposal of the product and its packaging

Product: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with national regulations. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging: Dispose of container in accordance with national regulations.

2.1.88.5 Conditions of storage and shelf-life of the product under normal conditions of storage

Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers. Keep away from heat and sources of ignition. Keep in a cool, well ventilated place. Keep away from oxidizing agents.

Storage temperature: 0-30°C.
Shelf life: 12 months

2.1.89 Other information

Please be aware of the European reference value of 1.25 mg/m³ for the active substance hydrogen peroxide (CAS No.: 7722-84-1) which was used for the risk assessment for the product.

PART III - THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 12

2.1.90 Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	OxyDes Maxi Wipes				
Authorisation number					
Common name	**IUPAC name**	**Function**	**CAS number**	**EC number**	**Content (%)**
Hydrogen peroxide	Hydrogen peroxide	Pure active substance	7722-84-1	231-765-0	2.0
n-propanol	n-propanol	Non-active substance	71-23-8	200-746-9	17.5

2.1.91 Packaging of the biocidal product

Product Name/Code	Type of packaging	Size/volume of the packaging	Packaging Material	Type and material of closure(s)	Intended user (e.g. professional, non-professional)	Compatibility of the product with the proposed packaging materials (Yes/No)
Meta-SPC 1 (a): Klercide Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	Bottle	1-5L	HDPE	HDPE	Professional	Yes
	Spray bottle	1-5L	PP + PE	PP + PE [redacted]	Professional	Yes
Meta-SPC 1 (a): Klerwipe Sporicidal Low Residue Peroxide	Bucket	100 wipes Wipe size: 420x250 mm 200x200 mm	HDPE Wipe material: 45% polyester / 55% cellulose blend	HDPE	Professional	Yes
	Pouch	10-100 wipes Wipe size: 420x250 mm 200x200 mm	PP Wipe material: 45% polyester / 55% cellulose blend	PP	Professional	Yes
Meta-SPC 2 (a) DrySan Oxy	Containers	1-100L	HDPE	HDPE	Professional	Yes
	Jerry can	1-100L	HDPE	HDPE	Professional	Yes
	IBC	600-1000L	HDPE	HDPE	Professional	Yes
	Drum	60-220L	HDPE	HDPE	Professional	Yes
	Bottle	0.1-5L	HDPE	HDPE	Professional	Yes
	Spray bottle	0.5-1L	HDPE; PE	HDPE; PE	Professional	Yes

Product Name/Code	Type of packaging	Size/volume of the packaging	Packaging Material	Type and material of closure(s)	Intended user (e.g. professional, non-professional)	Compatibility of the product with the proposed packaging materials (Yes/No)
				[redacted]		
Meta-SPC 3 (a) Oxypak D; Oxypak S; Oxypak S10	Container/bulk delivery	>1L-Bulk	HDPE	HDPE	Professional	Yes
	Jerry can	1-100L	HDPE	HDPE	Professional	Yes
	IBC	600-1000L	HDPE	HDPE	Professional	Yes
	Drum	60-220L	HDPE	HDPE	Professional	Yes
	Bottle	0.1-5L	HDPE	HDPE	Professional	Yes
Meta-SPC 4 (b): OxyFoam Plus; MEPA Foampro D; Predip PLUS	Jugs	1-100L	HDPE	HDPE	Professional	Yes
	Jerry can	1-100L	HDPE	HDPE	Professional	Yes
	IBC	600-1000L	HDPE	HDPE	Professional	Yes
	Drum	60-220L	HDPE	HDPE	Professional	Yes
	Bottle	0.1-5L	HDPE	HDPE	Professional	Yes
	Pouch	0.5-100L	HDPE; PE	HDPE; PE	Professional	Yes
Meta-SPC 5 (b): Incidin OxyFoam; Meta-SPC 5 (c): Incidin OxyFoam S	Spray bottle	0.25-1L	PET	PET [redacted]	Professional	Yes
	Jerry can	1-5L	HDPE	HDPE	Professional	Yes
Meta-SPC 5 (c): Klercide Sporicidal Enhanced Peroxide; KitchenPro Oxy Foam S;	Spray bottle	0.25-1L	PET	HDPE [redacted]	Professional	Yes
	Bottle	1-5L	HDPE	HDPE	Professional	Yes

Product Name/Code	**Type of packaging**	**Size/volume of the packaging**	**Packaging Material**	**Type and material of closure(s)**	**Intended user (e.g. professional, non-professional)**	**Compatibility of the product with the proposed packaging materials (Yes/No)**
Meta-SPC 6 (a) OxyDes Rapid	Containers	1-100L	HDPE	HDPE	Professional	Yes
	Jerry can	1-100L	HDPE	HDPE	Professional	Yes
	IBC	600-1000L	HDPE	HDPE	Professional	Yes
	Drum	60-220L	HDPE	HDPE	Professional	Yes
	Spray bottle	Up to 1L	HDPE	HDPE [redacted]	Professional	Yes
	Bottle	0.1-5L	HDPE	HDPE	Professional	Yes
Meta-SPC 7 (a): Incidin OxyConcentrate; UltraSan Floor. Meta-SPC 7 (b): Incidin OxyConcentrate FF; CidalSan Large area; KitchenPro Oxy Des Super Concentrate	Bottle	0.5-5L	HDPE	HDPE	Professional	Yes
	Canister	1-100L	HDPE	HDPE	Professional	Yes
	Pouch	0.01-1L	HDPE	HDPE	Professional	Yes
	Jug	0.5-5L	HDPE	HDPE	Professional	Yes
Meta-SPC 8 (a): DrySan Oxy Wipes; Incidin OxyWipe	Bucket	10-5000 wipes Wipe size: 200x250 mm.	PP Wipe material:	PP	Professional	Yes

Product Name/Code	Type of packaging	Size/volume of the packaging	Packaging Material	Type and material of closure(s)	Intended user (e.g. professional, non-professional)	Compatibility of the product with the proposed packaging materials (Yes/No)
		[redacted] Or 200x200mm [redacted]	• 60% polyester / 40% lyocell blend • Non-woven, 100% polypropylene 100% PP			
	Pouch	10-5000 wipes Wipe size: 200x250 mm. [redacted] Or 200x200mm [redacted]	PP Wipe material: • 60% polyester / 40% lyocell blend • Non-woven, 100% polypropylene 100% PP	PP	Professional	Yes
Meta-SPC 9 (a): KitchenPro Oxy Des Concentrate; Incidin OxyPro Meta-SPC 9 (b): Oasis Pro Oxy Des; Maxx Oxy Des 2	Bottle	0.5-5L	HDPE	HDPE	Professional	Yes
	Jug	0.5-5L	HDPE	HDPE	Professional	Yes
	Pouch	0.01-1L	HDPE	HDPE	Professional	Yes
Meta-SPC 10 (a): Manosan Oxy	Jugs	1-100L	HDPE	HDPE	Professional	Yes
	Jerry can	1-100L	HDPE	HDPE	Professional	Yes
	IBC	600-1000L	HDPE	HDPE	Professional	Yes
	Drum	60-220L	HDPE	HDPE	Professional	Yes

Product Name/Code	Type of packaging	Size/volume of the packaging	Packaging Material	Type and material of closure(s)	Intended user (e.g. professional, non-professional)	Compatibility of the product with the proposed packaging materials (Yes/No)
	Bottle	0.1-5L	HDPE	HDPE	Professional	Yes
	Pouch	0.5-100L	HDPE; PE	HDPE; PE	Professional	Yes
Meta-SPC 11 (c): Klerwipe Sporicidal Enhanced peroxide	Bucket	10-5000 wipes Wipe size: 200x200 mm or 420x250 mm	PET Wipe material: 45% polyester / 55% cellulose blend	PET	Professional	Yes
Meta-SPC 11 (d): Incidin OxyWipe S; KitchenPro Oxy Wipes S	Pouch	10-100 wipes Wipe size: 200x200mm [redacted] 420x250 mm	WIP- pre-printed pouch Wipe material: • 60% polyester / 40% lyocell blend	WIP- pre-printed pouch	Professional	Yes
	Canister	10-1000 wipes Wipe size: 200x200mm [redacted] 420x250 mm	PET Wipe material: • 60% polyester / 40% lyocell blend	PET	Professional	Yes
	Bucket	10-1000 wipes Wipe size: 200x200mm	PET Wipe material:	PET	Professional	Yes

Product Name/Code	Type of packaging	Size/volume of the packaging	Packaging Material	Type and material of closure(s)	Intended user (e.g. professional, non-professional)	Compatibility of the product with the proposed packaging materials (Yes/No)
		[redacted] 420x250 mm	• 60% polyester / 40% lyocell blend			
	Pouch	10-1000 wipes Wipe size: 200x200mm [redacted] 420x250 mm	PET Wipe material: • 60% polyester / 40% lyocell blend	PET	Professional	Yes
Meta-SPC 12 (a): OxyDes Maxi Wipes	Bucket	10-5000 wipes Wipe size: 200x250 mm, [redacted]	PP Wipe material: • Non-woven, 100% polypropylene 100% PP	PP	Professional	Yes
	Pouch	10-5000 wipes Wipe size: 200x250 mm, [redacted]	PE Wipe material: • Non-woven, 100% polypropylene 100% PP	PE	Professional	Yes

PVP = Polyvinylpyrrolidine, HDPE = High density polyethylene, PP = Polypropylene, PE = Polyethylene
PET = Poly ethylene terephthalate

2.1.92 Documentation

2.1.92.1 Data submitted in relation to product application

Product:
All data submitted in support of the Hydrogen Peroxide Family 1 are added in the reference list contained in Annex 3.1.

Active substance:
A new information (Analytical methods of determination of hydrogen peroxide in air; Analytical methods of determination of hydrogen peroxide in water) was submitted to eCA Finland for the purpose of filling the data gaps defined in CAR for Hydrogen Peroxide PTs 1-6. The data package has been evaluated and accepted as sufficient by eCA.

2.1.92.2 Access to documentation

The applicant is the data holder of the product data and has letter of access (LoA) to the active substance dossier.

2.1.92.3 Similar conditions of use

No objections were raised from either the Commission or the Member States Competent Authorities (MSCAs) as regards the eligibility of the prospective application for Union authorisation on the grounds that the biocidal product family Hydrogen Peroxide Family 1 falls outside of the scope of the Biocidal Products Regulation, or had been attributed the wrong product type, or that it would have non-similar conditions of use across the Union.

The biocidal product family (Hydrogen Peroxide Family 1) is deemed to be eligible for Union authorisation and have similar conditions of use.

ECHA has concluded that based on the information provided by the applicant, the application could meet the basic requirements of Article 42(1) of the Biocidal Products Regulation.

2.2 Assessment of the biocidal product family

2.2.1 Intended use(s) as applied for by the applicant

Table 1. Intended use # 1 – [redacted]

Product Type(s)	[redacted]
Where relevant, an exact description of the authorised use	[redacted]
Target organism (including development stage)	[redacted]
Field of use	[redacted]
Application method(s)	[redacted]
Application rate(s) and frequency	[redacted]
Category(ies) of user(s)	[redacted]
Pack sizes and packaging material	[redacted]

Table 2. Intended use # 2 – [redacted]

Product Type(s)	[redacted]
Where relevant, an exact description of the authorised use	[redacted]
Target organism (including development stage)	[redacted]
Field of use	[redacted]
Application method(s)	[redacted]
Application rate(s) and frequency	[redacted]
Category(ies) of user(s)	[redacted]

Pack sizes and packaging material	[redacted]

Table 3. Intended use # 3 – [redacted]

Product Type(s)	[redacted]
Where relevant, an exact description of the authorised use	[redacted]
Target organism (including development stage)	[redacted]
Field of use	[redacted]
Application method(s)	[redacted]
Application rate(s) and frequency	[redacted]
Category(ies) of user(s)	[redacted]
Pack sizes and packaging material	[redacted]

Table 4. Intended use # 4 – [redacted]

Product Type(s)	[redacted]
Where relevant, an exact description of the authorised use	[redacted]
Target organism (including development stage)	[redacted]
Field of use	[redacted]
Application method(s)	[redacted]
Application rate(s) and frequency	[redacted]
Category(ies) of user(s)	[redacted]
Pack sizes and packaging material	[redacted]

2.2.2 Physical, chemical and technical properties

In the table below the data with regard to the physical and chemical properties of the products are included. Evaluated data package is considered to be acceptable to support the proposed family structure.

Physical, chemical and technical properties for wipes: For Meta-SPC 1 (one product), Meta-SPC 8, Meta-SPC 11 and Meta-SPC 12 due to products properties (products are wipes), pH, density, surface tension, viscosity and analysis of active substance were done on liquid extracted from wipes. [redacted]. For all Meta-SPCs, storage stability testing was done on the product as is supplied.

The eCA has added remarks within the table where deemed necessary. Where no remarks are made, the information is considered acceptable.

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
Physical state at 20 °C and 101.3 kPa	Visual assessment	Meta-SPC 1 (a), Klercide Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	Liquid	[redacted] (2011) Report No: 209/2010
		Meta-SPC 1 (a), Klerwipe Sporicidal Low Residue Peroxide	Liquid/wipes	[redacted] (2016) Report No: -
		Meta-SPC 2 (a), DrySan Oxy	Liquid	[redacted] (2016) Report No: NJ51MN
		Meta-SPC 3 (a), Oxypak D; Oxypak S; Oxypak S10	Liquid	[redacted] (2016) Report No: -
		Meta-SPC 4 (b), OxyFoam Plus; MEPA Foampro D; Predip PLUS	Liquid	[redacted] (2017) Report No: 17-03061-2

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Meta-SPC 5 (b), Incidin OxyFoam	Liquid	[redacted] (2017) Report No: YR45WG
		Meta-SPC 5 (c), Klercide Sporicidal Enhanced Peroxide; Incidin OxyFoam S; KitchenPro Oxy Foam S	Liquid	[redacted] (2015) Report No: -
		Meta-SPC 6 (a), OxyDes Rapid	Liquid	[redacted] (2016) Report No: DQ37FS
		Meta-SPC 7 (a), UltraSan Floor; Incidin OxyConcentrate	Read across [redacted] **eCA remark:** [redacted]	-
		Meta-SPC 7 (b), CidalSan Large Area; Incidin OxyConcentrate FF; KitchenPro Oxy Des Super Concentrate	Liquid	[redacted] (2019) Report No: 161107ED/ CLR17437 [redacted] (2019) Report No: 161107ED/ CLR17436
		Meta-SPC 8 (a), Incidin Oxy Wipe;	Liquid/wipes	[redacted] (2014)

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		DrySan Oxy Wipes		Report No: -
		Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	Liquid	[redacted] and [redacted] (2018)
		Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	Liquid	[redacted] (2017) Report No: CSL-16-2559.03
		Meta-SPC 10 (a) Manosan Oxy	Liquid	[redacted] (2016) Report No: HR02PR
		Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	Liquid/wipes	[redacted] (2015) Report No: -
		Meta-SPC 11 (d), Incidin OxyWipe S; KitchenPro Oxy Wipes S	Liquid/wipes	[redacted] (2017) Report No: FG98JD
		Meta-SPC 12 (a), OxyDes Maxi Wipes	Blue absorbent, soft opaque wipe /liquid	[redacted] (2016) Report No: DQ37FS [redacted] (2019) Report No: SG84WN
Colour at 20 °C and 101.3 kPa	Visual assessment	Meta-SPC 1 (a), Klercide Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	Colourless	[redacted] (2011) Report No: 209/2010

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Meta-SPC 1 (a), Klerwipe Sporicidal Low Residue Peroxide	Colourless liquid on white absorbent wipes	[redacted] (2016) Report No: -
		Meta-SPC 2 (a), DrySan Oxy	Colourless	[redacted] (2016) Report No: NJ51MN
		Meta-SPC 3 (a), Oxypak D; Oxypak S; Oxypak S10,	Colourless	[redacted] (2016) Report No: -
		Meta-SPC 4 (b), OxyFoam Plus; MEPA Foampro D; Predip PLUS	Colourless	[redacted] (2017) Report No: 17-03061-2
		Meta-SPC 5 (b), Incidin OxyFoam	Colourless	[redacted] (2017) Report No: YR45WG
		Meta-SPC 5 (c), Klercide Sporicidal Enhanced Peroxide; Incidin OxyFoam S; KitchenPro Oxy Foam S	Colourless	[redacted] (2015) Report No: -
		Meta-SPC 6 (a), OxyDes Rapid	Colourless	[redacted] (2016) Report No: DQ37FS
		Meta-SPC 7 (a), UltraSan Floor; Incidin OxyConcentrate	Read across [redacted] **eCA remark:** [redacted]	-

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted]	
		Meta-SPC 7 (b), CidalSan Large Area; Incidin OxyConcentrate FF; KitchenPro Oxy Des Super Concentrate	Colourless	[redacted] (2019) Report No: 161107ED/ CLR17437 [redacted] (2019) Report No: 161107ED/ CLR17436
		Meta-SPC 8 (a), Incidin Oxy Wipe; DrySan Oxy Wipes	Colourless liquid on white absorbent wipes	[redacted] (2014) Report No: -
		Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	Transparent to yellowish ([redacted])	[redacted] (2018)
		Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	yellow	[redacted] (2017) Report No: CSL-16-2559.03
		Meta-SPC 10 (a) Manosan Oxy	Colourless	[redacted] (2017) Report No: HR02PR
		Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	Colourless liquid on white absorbent wipes	[redacted] (2015) Report No: -
		Meta-SPC 11 (d), Incidin OxyWipe S;	Colourless liquid on white absorbent wipes	[redacted] (2017)

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		KitchenPro Oxy Wipes S		Report No: FG98JD
		Meta-SPC 12 (a), OxyDes Maxi Wipes	Colourless liquid on blue absorbent wipes	[redacted] (2016) Report No: DQ37FS [redacted] (2019) Report No: SG84WN
Odour at 20 °C and 101.3 kPa	No guideline available	Meta-SPC 1 (a), Klercide Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	Read across [redacted] **eCA remark:** [redacted]	-
		Meta-SPC 1 (a), Klerwipe Sporicidal Low Residue Peroxide	Pungent	[redacted] (2016) Report No: -
		Meta-SPC 2 (a), DrySan Oxy	Read across [redacted] **eCA remark:** [redacted]	-
		Meta-SPC 3 (a), Oxypak D; Oxypak S; Oxypak S10	Characteristic peroxide smell	[redacted] & (2018) Report No: -
		Meta-SPC 4 (b), OxyFoam Plus; MEPA Foampro D; Predip PLUS	Characteristic surfactant smell	[redacted] & (2018) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Meta-SPC 5 (b), Incidin OxyFoam	Characteristic Peroxide smell	[redacted] & [redacted] (2018) Report No: -
		Meta-SPC 5 (c), Incidin OxyFoam S	Characteristic Peroxide smell	[redacted] & [redacted] (2018) Report No: -
		Meta-SPC 5 (c), Klercide Sporicidal Enhanced Peroxide; KitchenPro Oxy Foam S	Characteristic	[redacted] (2015) Report No: -
		Meta-SPC 6 (a), OxyDes Rapid	Characteristic solvent smell	[redacted] & [redacted] (2018) Report No: -
		Meta-SPC 7 (a), UltraSan Floor; Incidin OxyConcentrate	Characteristic Perfumed smell	[redacted] & [redacted] (2018) Report No: -
		Meta-SPC 7 (b), CidalSan Large Area; KitchenPro Oxy Des Super Concentrate; Incidin OxyConcentrate FF	Characteristic	[redacted] (2019) Report No: 161107ED/ CLR17437 [redacted] (2019) Report No: 161107ED/ CLR17436
		Meta-SPC 8 (a), Incidin Oxy Wipe; DrySan Oxy Wipes	Characteristic	[redacted] (2014) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	Characteristic peroxide smell	[redacted] and [redacted] (2018) Report No: -
		Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	Characteristic	[redacted] (2019) Report No: 161129EB/ CLR17481 [redacted] (2019) Report No: 161129EB/ CLR17482
		Meta-SPC 10 (a), Manosan Oxy	Characteristic surfactant smell	[redacted] & [redacted] (2018) Report No: -
		Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	Characteristic	[redacted] (2015) Report No: -
		Meta-SPC 11 (d), Incidin OxyWipe S; KitchenPro Oxy Wipes S	Read across [redacted] **eCA remark:** [redacted]	-
		Meta-SPC 12 (a), OxyDes Maxi Wipes	Characteristic solvent smell	[redacted] & [redacted] (2018)

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td></td><td>Report No: -</td></tr>
<tr><td rowspan="3">pH (neat formulation and 1% solution)</td><td>CIPAC 75.3</td><td>Meta-SPC 1 (a),
Klercide Sporicidal Low Residue Peroxide;
ANIOS H2O2 6% IP STERILE</td><td>Batch [redacted]:
<table><tr><td></td><td>Neat</td><td>1%</td></tr><tr><td>Initial</td><td>3.93</td><td>5.72</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr></table>Batch [redacted]:
<table><tr><td></td><td>Neat</td><td>1%</td></tr><tr><td>Initial</td><td>4.01</td><td>5.88</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr></table></td><td>[redacted]
(2019)
Report No: BY76TB

[redacted]
(2019)
Report No: RN20RP</td></tr>
<tr><td>CIPAC 75.3</td><td>Meta-SPC 1 (a),
Klerwipe Sporicidal Low Residue Peroxide;</td><td>Read-across [redacted]
eCA remark:
[redacted]</td><td>-</td></tr>
<tr><td>CIPAC 75.3</td><td>Meta-SPC 2 (a),
DrySan Oxy</td><td>Batch [redacted]:
<table><tr><td></td><td>Neat</td><td>1%</td></tr><tr><td>Initial</td><td>2.14</td><td>3.49</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr></table>Batch [redacted]:</td><td>[redacted]
(2019)
Report No: BP60CP</td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] Neat: Initial 2.46 1%: Initial 3.62	[redacted] (2019) Report No: KH75LF
	CIPAC 75.3	Meta-SPC 3 (a), Oxypak D; Oxypak S; Oxypak S10	***Batch [redacted]:*** Neat: Initial 2.83 1%: Initial 5.76 ***Batch [redacted]:*** Neat: Initial 2.75 1%: Initial 5.59	[redacted] & [redacted] (2018) Report No: -
	CIPAC 75.3	Meta-SPC 4 (b), OxyFoam Plus; MEPA Foampro D; Predip PLUS	Read across [redacted] **eCA remark:** [redacted]	-
	CIPAC 75.3	Meta-SPC 5 (b), Incidin OxyFoam	***Batch [redacted]:*** Neat: Initial 2.41 1%: Initial 3.85	[redacted] (2019)

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted]	Report No: PC92QF
			Batch [redacted]:	[redacted] (2019) Report No: BL62KN
	CIPAC 75.3	Meta-SPC 5 (c), Incidin OxyFoam S; Klercide Sporicidal Enhanced Peroxide; KitchenPro Oxy Foam S	***Batch [redacted]:***	[redacted] (2019) Report No: KL58LX
			Batch [redacted]:	[redacted] (2019) Report No: QH74HN
	CIPAC 75.3	Meta-SPC 6 (a), OxyDes Rapid	***Batch [redacted]:***	[redacted] (2019)

	Neat	1%
Initial	2.27	3.61
[redacted]		

	Neat	1%
Initial	2.30	3.37
[redacted]		

	Neat	1%
Initial	2.21	3.28
[redacted]		

	Neat	1%
Initial	2.24	3.76

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] ***Batch [redacted]:*** Neat: Initial 2.33 1%: Initial 3.65	Report No: GF17VF [redacted] (2019) Report No: HG33YV
	CIPAC 75.3	Meta-SPC 7 (a), UltraSan Floor; Incidin OxyConcentrate	Read across [redacted] **eCA remark:** [redacted]	-
	CIPAC 75.3	Meta-SPC 7 (b), CidalSan Large Area; Incidin OxyConcentrate FF; KitchenPro Oxy Des Super Concentrate	***Batch*** [redacted] 1% (Initial): 3.29 at 19.6°C (1 min) 1% (initial): 3.28 at 19.5°C (10 min) Neat (initial): 2.07 at 18.8°C (1 min) Neat (initial): 2.06 at 18.8°C (10 min) [redacted]	[redacted] (2019) Report No: 161107ED/ CLR17437

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] [redacted] [redacted] ***Batch*** [redacted] 1% (Initial): 3.25 at 19.6°C (1 min) 1% (Initial): 3.24 at 19.9°C (10 min) Neat (Initial): 1.96 at 19.2°C (1 min) Neat (Initial): 1.96 at 19.0°C (10 min) [redacted] [redacted]	[redacted] (2019) Report No: 161107ED/ CLR17436

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>[redacted]</td><td></td></tr>
<tr><td></td><td>CIPAC 75.3</td><td>Meta-SPC 8 (a),
DrySan Oxy Wipes</td><td>Batch [redacted]:
<table><tr><td></td><td>Neat</td><td>1%</td></tr><tr><td>Initial</td><td>2.20</td><td>3.47</td></tr><tr><td>[redacted]</td><td></td><td></td></tr><tr><td>[redacted]</td><td></td><td></td></tr><tr><td>[redacted]</td><td></td><td></td></tr></table>Batch [redacted]:
<table><tr><td></td><td>Neat</td><td>1%</td></tr><tr><td>Initial</td><td>2.17</td><td>3.51</td></tr><tr><td>[redacted]</td><td></td><td></td></tr><tr><td>[redacted]</td><td></td><td></td></tr><tr><td>[redacted]</td><td></td><td></td></tr></table></td><td>[redacted]
(2019)
Report No:
NV27TY

[redacted]
(2019)
Report No:
VF49SP</td></tr>
<tr><td></td><td>CIPAC 75.3</td><td>Meta-SPC 8 (a),
Incidin Oxy Wipe</td><td>pH values at $20^0 \pm 2^0$C
Batch [redacted]: 2.15
Batch [redacted]: 2.17</td><td>[redacted] &
[redacted] (2018)
Report No:
18/400ANA</td></tr>
<tr><td></td><td>CIPAC 75.3</td><td>Meta-SPC 9 (a),</td><td>Read across [redacted]</td><td>-</td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		KitchenPro Oxy Des Concentrate; Incidin OxyPro	**eCA remark:** [redacted]	
	CIPAC 75.3	Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	***Batch*** [redacted] ***:*** 1% (Initial): 1.96 at 18.6 °C (1 min) 1% (initial): 1.96 at 18.9 °C (10 min) Neat (initial): -0.11 at 18.9 °C (1 min) Neat (initial): -0.15 at 19.0 °C (10 min) [redacted]	[redacted] (2019) Report No: 161129EB/ CLR17481 [redacted] (2019) Report No: 161129EB/ CLR17482

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>Batch [redacted]:
1% (Initial): 2.01 at 18.4 °C (1 min)
1% (initial): 1.99 at 18.6 °C (10 min)
Neat (initial): -0.15 at 18.0 °C (1 min)
Neat (initial): -0.16 at 18.5 °C (10 min)

[redacted]

[redacted]

[redacted]

[redacted]</td><td></td></tr>
<tr><td></td><td>CIPAC 75.3</td><td>Meta-SPC 10 (a), Manosan Oxy</td><td>Batch [redacted]:
<table>
<tr><td></td><td>Neat</td><td>1%</td></tr>
<tr><td>Initial</td><td>3.47</td><td>3.46</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
</table></td><td>[redacted] (2019) Report No: CB49NC</td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted]	[redacted] (2019) Report No: TN31DW
		Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	2.04	[redacted] (2015) Report No: -
	CIPAC 75.3	Meta-SPC 11 (d), Incidin OxyWipe S; KitchenPro Oxy Wipes S	***Batch [redacted]:***	[redacted] (2019) Report No: MX78BM
			Batch [redacted]:	[redacted] (2019) Report No: DD01JQ

Batch [redacted]:

	Neat	1%
Initial	3.44	3.46
[redacted]		
[redacted]		
[redacted]		
[redacted]		

Batch [redacted]:

	Neat	1%
Initial	2.31	3.29
[redacted]		
[redacted]		
[redacted]		

Batch [redacted]:

	Neat	1%
Initial	2.22	3.24
[redacted]		
[redacted]		
[redacted]		

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>CIPAC 75.3</td><td>Meta-SPC 12 (a),
OxyDes Maxi Wipes</td><td>Batch [redacted]:
<table>
<tr><td></td><td>Neat</td><td>1%</td></tr>
<tr><td>Initial</td><td>2.19</td><td>3.61</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
</table>
Batch [redacted]:
<table>
<tr><td></td><td>Neat</td><td>1%</td></tr>
<tr><td>Initial</td><td>2.30</td><td>3.81</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
</table></td><td>[redacted]
(2019)
Report No:
NT57GK

[redacted]
(2019)
Report No:
SG84WN</td></tr>
<tr><td></td><td colspan="4">eCA remark:
The pH range per Meta-SPC is:
<table>
<tr><th>Meta-SPC</th><th>Neat (range)</th><th>1% (range)</th></tr>
<tr><td>Meta-SPC 1</td><td>3.8-4.3</td><td>5.7-6.8</td></tr>
<tr><td>Meta-SPC 2</td><td>2.1-2.5</td><td>3.3-3.7</td></tr>
<tr><td>Meta-SPC 3</td><td>2.6-3.0</td><td>5.4-6.1</td></tr>
<tr><td>Meta-SPC 4</td><td>3.4-3.9</td><td>3.4-3.7</td></tr>
<tr><td>Meta-SPC 5</td><td>2.1-2.5</td><td>3.2-3.9</td></tr>
<tr><td>Meta-SPC 6</td><td>2.2-2.3</td><td>3.5-3.8</td></tr>
<tr><td>Meta-SPC 7</td><td>1.9-2.1</td><td>3.1-3.3</td></tr>
<tr><td>Meta-SPC 8</td><td>2.1-2.3</td><td>3.4-3.5</td></tr>
<tr><td>Meta-SPC 9</td><td>-0.0 to -0.2</td><td>2.0-2.1</td></tr>
<tr><td>Meta-SPC 10</td><td>3.4-3.9</td><td>3.4-3.7</td></tr>
<tr><td>Meta-SPC 11</td><td>2.0-2.3</td><td>3.1-3.4</td></tr>
</table></td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
	Meta-SPC 12	2.2-2.4 / 3.6-3.9		
Acidity / alkalinity (Equivalent Sulfuric Acid)	CIPAC 191	Meta-SPC 1 (a), Klercide Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	***Batch [redacted]:*** Initial: $2.22 \cdot 10^{-3}$ % w/w [redacted] ***Batch [redacted]:*** Initial: Not applicable [redacted]	[redacted] (2019) Report No: BY76TB [redacted] (2019) Report No: RN20RP
	CIPAC 191	Meta-SPC 1 (a), Klerwipe Sporicidal Low Residue Peroxide	Read-across [redacted] **eCA remark:** [redacted]	-
	CIPAC 191	Meta-SPC 2 (a), DrySan Oxy	***Batch [redacted]:*** Initial: 0.388 % w/w [redacted] ***Batch [redacted]:*** Initial: 0.365 % w/w [redacted]	[redacted] (2019) Report No: BP60CP [redacted] (2019)

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted]	Report No: KH75LF
	CIPAC 191	Meta-SPC 3 (a), Oxypak D; Oxypak S; Oxypak S10	***Batch*** [redacted]***:*** Initial: $8.44 \cdot 10^{-3}$ % w/w [redacted] ***Batch*** [redacted]***:*** Initial: $9.18 \cdot 10^{-3}$ % w/w [redacted]	[redacted] & [redacted] (2018) Report No: -
	CIPAC 191	Meta-SPC 4 (b), OxyFoam Plus; MEPA Foampro D; Predip PLUS	Read across [redacted] **eCA remark:** [redacted]	-
	CIPAC 191	Meta-SPC 5 (b), Incidin OxyFoam	***Batch*** [redacted]***:*** Initial: 0.238 % w/w [redacted] ***Batch*** [redacted]***:***	[redacted] (2019) Report No: PC92QF [redacted]

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			Initial: 0.266 % w/w [redacted]	(2019) Report No: BL62KN
	CIPAC 191	Meta-SPC 5 (c), Incidin OxyFoam S; Klercide Sporicidal Enhanced Peroxide; KitchenPro Oxy Foam S	***Batch*** [redacted]***:*** Initial: 1.11 % w/w [redacted] ***Batch*** [redacted]***:*** Initial: 1.20 % w/w [redacted]	[redacted] (2019) Report No: KL58LX [redacted] (2019) Report No: QH74HN
	CIPAC 191	Meta-SPC 6 (a), OxyDes Rapid	***Batch*** [redacted]***:*** Initial: 0.189 % w/w [redacted] ***Batch*** [redacted]***:*** Initial: 0.190 % w/w [redacted]	[redacted] (2019) Report No: GF17VF [redacted] (2019) Report No: HG33YV

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
	CIPAC 191	Meta-SPC 7 (a), UltraSan Floor; Incidin OxyConcentrate	Read across [redacted] **eCA remark:** [redacted]	-
	CIPAC 191	Meta-SPC 7 (b), CidalSan Large Area; Incidin OxyConcentrate FF; KitchenPro Oxy Des Super Concentrate	***Batch*** [redacted] Initial: 1.54 % w/w [redacted] ***Batch*** [redacted] Initial: 1.34 % w/w [redacted]	[redacted] (2019) Report No: 161107ED/ CLR17437 [redacted] (2019) Report No: 161107ED/ CLR17436
	CIPAC 191	Meta-SPC 8 (a), DrySan Oxy Wipes; Incidin Oxy Wipe	***Batch*** [redacted]***:*** Initial: 0.395 % w/w [redacted] ***Batch*** [redacted]***:*** Initial: 0.364 % w/w [redacted]	[redacted] (2019) Report No: NV27TY [redacted] (2019) Report No: VF49SP

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted]	
	CIPAC 191	Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	Read across [redacted] **eCA remark:** [redacted]	-
	CIPAC 191	Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	***Batch*** [redacted]***:*** Initial: 9.04 % w/w [redacted] ***Batch*** [redacted]***:*** Initial: 9.18 % w/w [redacted]	[redacted] (2019) Report No: 161129EB/ CLR17481 [redacted] (2019) Report No: 161129EB/ CLR17482
	CIPAC 191	Meta-SPC 10 (a), Manosan Oxy	***Batch*** [redacted]***:*** Initial: 1.63 % w/w [redacted] ***Batch*** [redacted]***:*** Initial: 1.56 % w/w [redacted]	[redacted] (2019) Report No: CB49NC [redacted] (2019)

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted]	Report No: TN31DW
		Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	Read across [redacted] **eCA remark:** [redacted]	-
	CIPAC 191	Meta-SPC 11 (d), Incidin OxyWipe S; KitchenPro Oxy Wipes S	***Batch*** [redacted]***:*** Initial: 1.18 % w/w [redacted] ***Batch*** [redacted]***:*** Initial: 1.23 % w/w [redacted]	[redacted] (2019) Report No: MX78BM [redacted] (2019) Report No: DD01JQ
	CIPAC 191	Meta-SPC 12 (a), OxyDes Maxi Wipes	***Batch*** [redacted]***:*** Initial: 0.242 % w/w [redacted] ***Batch*** [redacted]***:*** Initial: 0.162 % w/w [redacted]	[redacted] (2019) Report No: NT57GK [redacted] (2019) Report No: SG84WN

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
Relative density	EC Method A.3.	Meta-SPC 1 (a), Klercide Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	***Batch*** [redacted]***:*** Initial: D_4^{20}=1.0196 [redacted]	[redacted] (2019) Report No: BY76TB
			Batch [redacted]***:*** Initial: D_4^{20}= 1.0193 [redacted]	[redacted] (2019) Report No: RN20RP
		Meta-SPC 1 (a), Klerwipe Sporicidal Low Residue Peroxide	1.020 g/ml	[redacted] (2016) Report No: -
	EC Method A.3.	Meta-SPC 2 (a), DrySan Oxy	***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.0062 [redacted]	[redacted] (2019) Report No: BP60CP
			Batch [redacted]***:*** Initial: D_4^{20}= 1.0076 [redacted]	[redacted] (2019) Report No: KH75LF

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
	EC Method A.3.	Meta-SPC 3 (a), Oxypak D; Oxypak S; Oxypak S10	***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.1323 [redacted] ***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.1337 [redacted]	[redacted] & [redacted] (2018) Report No: -
	EC Method A.3.	Meta-SPC 4 (b), OxyFoam Plus; MEPA Foampro D; Predip PLUS	Read across [redacted] **eCA remark:** [redacted]	-
	EC Method A.3.	Meta-SPC 5 (b), Incidin OxyFoam	***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.0068 [redacted] ***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.0076 [redacted]	[redacted] (2019) Report No: PC92QF [redacted] (2019) Report No: BL62KN

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted]	
	EC Method A.3.	Meta-SPC 5 (c), Incidin OxyFoam S; KitchenPro Oxy Foam S; Klercide Sporicidal Enhanced Peroxide	***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.0104 [redacted] ***Batch*** [redacted]***:*** Initial: D_4^{20}=1.0115 [redacted]	[redacted] (2019) Report No: KL58LX [redacted] (2019) Report No: QH74HN
	EC Method A.3.	Meta-SPC 6 (a), OxyDes Rapid	***Batch*** [redacted]***:*** Initial: D_4^{20}= 0.9809 [redacted] ***Batch*** [redacted]***:*** Initial: D_4^{20}= 0.9808 [redacted]	[redacted] (2019) Report No: GF17VF [redacted] (2019) Report No: HG33YV
	EC Method A.3.	Meta-SPC 7 (a), UltraSan Floor; Incidin OxyConcentrate	Read across [redacted] **eCA remark:**	-

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted]	
	EC Method A.3.	Meta-SPC 7 (b), CidalSan Large Area; Incidin OxyConcentrate FF; KitchenPro Oxy Des Super Concentrate	***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.0303 [redacted] ***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.0259 [redacted]	[redacted] (2019) Report No: 161107ED/ CLR17437 [redacted] (2019) Report No: 161107ED/ CLR17436
	EC Method A.3.	Meta-SPC 8 (a), DrySan Oxy Wipes; Incidin Oxy Wipe	***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.0066 [redacted] ***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.0074 [redacted]	[redacted] (2019) Report No: NV27TY [redacted] (2019) Report No: VF49SP
	EC Method A.3.	Meta-SPC 9 (a),	Read across [redacted] **eCA remark:**	-

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		KitchenPro Oxy Des Concentrate; Incidin OxyPro	[redacted]	
	EC Method A.3.	Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.1082 [redacted] ***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.1079 [redacted]	[redacted] (2019) Report No: 161129EB/ CLR17481 [redacted] (2019) Report No: 161129EB/ CLR17482
	EC Method A.3.	Meta-SPC 10 (a), Manosan Oxy	***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.0508 [redacted] ***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.0508 [redacted]	[redacted] (2019) Report No: CB49NC [redacted] (2019) Report No: TN31DW

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	1.012 g/ml	[redacted] (2015) Report No: -
	EC Method A.3.	Meta-SPC 11 (d), Incidin OxyWipe S; KitchenPro Oxy Wipes S	***Batch*** [redacted]***:*** Initial: D_4^{20}=1.0116 [redacted] ***Batch*** [redacted]***:*** Initial: D_4^{20}= 1.0120 [redacted]	[redacted] (2019) Report No: MX78BM [redacted] (2019) Report No: DD01JQ
	EC Method A.3.	Meta-SPC 12 (a), OxyDes Maxi Wipes	***Batch*** [redacted]***:*** Initial: D_4^{20}= 0.9837 [redacted] ***Batch*** [redacted]***:*** Initial: D_4^{20}= 0.9821 [redacted]	[redacted] (2019) Report No: NT57GK [redacted] (2019) Report No: SG84WN
Storage stability test – **accelerated storage**	CIPAC MT 46	Meta-SPC 1 (a), Klercide Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	The active substance content increased by 1.7% during period of 2 weeks. Test item was stored at 54±2°C for 2 weeks No chemical and physical change occurred in the accelerated stability test thus, it can be conducted	[redacted] (2011) Report No: 209/2010

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			that the product will most likely comply with a shelf life of 2 years. AS content (%, w/w): Initial: 5.8 2w: 5.9 pH (neat): Initial: 4.23 2w: 4.26 Relative density (g/cm^3): Initial: 1.017 2w: 1.017 **eCA remark:** The differences after storage are not significant. A 1.7% increase does not raise concerns with regard to efficacy, toxicology and ecotoxicology.	
	CIPAC MT 46	Meta-SPC 1 (a), Klerwipe Sporicidal Low Residue Peroxide	There was slight decrease (approximately 3.3%) in the active substance content. Test item was stored at 40±2°C for 8 weeks in original packaging – pouch which contains 20 mop wipes of polyester/cellulose blend and 650mL of liquid. No chemical and physical change occurred in the accelerated stability test thus, it can be conducted that the product will most likely comply with a shelf life of 2 years. AS content (%, w/w): Initial: 6.1 [redacted]	[redacted] (2016) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			8w: 5.9 pH (neat): Initial: 3.75 [redacted] 8w: 3.29 Relative density (g/cm^3): Initial: 1.02 [redacted] 8w: 1.02 **eCA remark:** The differences after storage are not significant. A 3.3% decrease does not raise concerns with regard to efficacy, toxicology and ecotoxicology.	
	CIPAC MT 46.3	Meta-SPC 2 (a), DrySan Oxy	Read across [redacted] **eCA remark:** [redacted]	-
	CIPAC MT 46.3	Meta-SPC 3 (a), Oxypak D; Oxypak S; Oxypak S10	The active substance concentration stays constant over period of 8 weeks at 40±2°C. AS content (%, w/w): Initial: 35.0 8w: 35.0 **eCA remark:** No chemical and physical change occurred in the accelerated stability test thus, it can be conducted	[redacted] (2016) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			that the product will most likely comply with a shelf life of 2 years.	
	CIPAC MT 46.3	Meta-SPC 4 (b), OxyFoam Plus; Predip PLUS; MEPA Foampro D	Read across [redacted] **eCA remark:** [redacted]	-
	CIPAC MT 46.3	Meta-SPC 5 (b), Incidin OxyFoam	There is slight decrease (approximately 6% from the initial value) in the active substance content of the test item during storage at 30±2°C for 26 weeks, 40±2°C for 8 weeks and 2% increase in active substance content during storage at 45±2°C for 6 weeks. • 30°C for 26 weeks <u>AS content (%, w/w):</u> Initial: 1.6 26w: 1.5 <u>pH (neat):</u> Initial: 1.9 26w: 1.8 • 40°C for 8 weeks <u>AS content (%, w/w):</u>	[redacted] & [redacted] (2015) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			Initial: 1.6 8w: 1.5 <u>pH (neat):</u> Initial: 1.9 8w: 1.8 • 45°C for 6 weeks <u>AS content (%, w/w):</u> Initial: 1.56 26w: 1.59 <u>pH (neat):</u> Initial: 2.26 26w: 2.27 It can be concluded that the product will most likely comply with a shelf life of 2 years. **eCA remark:** The differences after storage are not significant. Changes does not raise concerns with regard to efficacy, toxicology and ecotoxicology.	
	CIPAC MT 46.3	Meta-SPC 5 (c), Incidin OxyFoam S	There is slight decrease (approximately 5% from the initial value) in the active substance content of the test item during storage at 45±2°C for 6 weeks <u>AS content (%, w/w):</u> Initial: 1.52 6w: 1.44	[redacted] & [redacted] (2015) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			pH (neat): Initial: 2.01 6w: 2.14 Based on these results it is anticipated that the product will have a shelf life of 2 years. **eCA remark:** The differences after storage are not significant. Changes does not raise concerns with regard to efficacy, toxicology and ecotoxicology.	
	CIPAC MT 46.3	Meta-SPC 5 (c), Klercide Sporicidal Enhanced Peroxide; KitchenPro Oxy Foam S	The active substance content decreased by 4.7% in the [redacted] (HDPE) 1L bottle ([redacted]) and decreased by 6.7% in the [redacted] (HDPE) 1L bottle ([redacted]) and by 5.3% in [redacted] (HDPE) 5L canister following 2 month storage at 40°C. Based on these results it is anticipated that the product will have a shelf life of 2 years. AS content (%, w/w): - [redacted] (HDPE, [redacted]): Initial: 1.50 8w: 1.43 AS content (%, w/w): - [redacted] (HDPE, [redacted]): Initial: 1.51 8w: 1.41 AS content (%, w/w): - [redacted] (HDPE):	[redacted] (2015) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			Initial: 1.51 8w: 1.43 **eCA remark:** The differences after storage are not significant. Changes does not raise concerns with regard to efficacy, toxicology and ecotoxicology.	
	CIPAC MT 46.3	Meta-SPC 6 (a), OxyDes Rapid	Stable at 30°C for 52 weeks and 40°C for 26 weeks. The appearance, colour and pH did not change following storage at 30°C for 52 weeks and 40°C for 26 weeks. The active substance decreased by 2.4% following 52 weeks storage at 30°C and the active substance decreased by 6% following 26 weeks storage at 40°C. Based on these results it is anticipated that the product will have a shelf life of 2 years. **AS content (%, w/w) 30^{0}C:** Initial: 2.5 [redacted] 52w: 2.44 **AS content (%, w/w) 40^{0}C:** Initial: 2.5 [redacted]	[redacted] (2015) Report No: RB28122015/01

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] 26w: 2.35 **eCA remarks:** [redacted]	
	CIPAC MT 46.3	Meta-SPC 7 (a), UltraSan Floor; Incidin OxyConcentrate	The accelerated storage stability of the test material was determined after 17 weeks storage at 30°C. Under the conditions of the test the test material is considered to be stable at 30°C and 17 weeks. **AS content (%, w/w) 30^{0}C:** Initial: 4.95 [redacted] 27w: 4.10 **eCA remark:** AS content during storage is shown graphically therefore, only approximate values are indicated. Final storage time for Meta-SPC 7 will be determined using long-term storage data.	[redacted] (2011) Report No: JH07072011/01
	CIPAC MT 46.3	Meta-SPC 7 (b), CidalSan Large Area; Incidin OxyConcentrate FF; KitchenPro Oxy Des Super Concentrate	The phys. state, odor and color did not change significantly following 26 weeks at 30°C and 8 weeks at 40°C. The active substance decreased [redacted] by 22.7 % after 26 weeks at 30°C and 13.6% at 40°C after 8 weeks. • 26 weeks at 30°C <u>AS content (%, w/w):</u>	[redacted] (2012) Report No: JH15052012/01

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			Initial: 4.4 [redacted] 26w: 3.4 • 8 weeks at 40°C <u>AS content (%, w/w):</u> Initial: 4.4 [redacted] 8w: 3.8 [redacted] **eCA remarks:** The active substance content decreased >10% when stored at 40°C for 8 weeks and at 30°C for 13 weeks. [redacted]	
	CIPAC MT 46.3	Meta-SPC 8 (a), Incidin Oxy Wipe; DrySan Oxy Wipes	The active substance concentration stays constant over period of 26 weeks at 30±2°C. <u>AS content (%, w/w):</u> Initial: 1.0 26w: 1.0 **eCA remarks:** No chemical and physical change occurred in the accelerated stability test thus, it can be conducted that the product will most likely comply with a shelf life of 2 years.	[redacted] & [redacted] (2015) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
	CIPAC MT 46.3	Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	Read across [redacted] **eCA remark:** [redacted]	-
	CIPAC MT 46.3	Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	The hydrogen peroxide content and pH were determined prior to placing the samples on storage. • 13 weeks at 30°C AS content (%, w/w): Initial: 7.25 [redacted] 13w: 6.75 pH (neat): Initial: 2.01 [redacted] 13w: 2.02 • 6 weeks at 40°C AS content (%, w/w): Initial: 7.25 [redacted]	[redacted] (2017) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] 6w: 6.70 pH (neat): Initial: 2.01 [redacted] [redacted] 8w: 1.96 **eCA remark:** According to CIPAC MT 46.3 test regimes are 30±2°C for 18 weeks and 40±2°C for 8 weeks. No measurements of actives substance content are made at week 18 (for 30°C storage) and at week 8 (for 40°C). [redacted].	
	CIPAC MT 46.3	Meta-SPC 10 (a), Manosan Oxy	There is a significant decrease in active substance content during storage at 40±2°C for 8 weeks. AS content (%, w/w): Initial: 1.5 8w: 1.3 pH (neat): Initial: 3.2 8w: 3.4 **eCA remark:** The active substance content decreased >10% when stored at 40°C for 8 weeks. [redacted]	[redacted] (19.01.16) Report No: RB/190116/1

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted].	
	CIPAC MT 46.3	Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	The appearance, colour, pH, density and refractive index did not change following 2 months storage at 40°C. All pouches showed no bloating, no difference in colour and all of the test wipes didn't change in appearance. The active substance decreased by 2.7% (neat formulation), 8.7% [redacted]) and 8% ([redacted]) following storage at 40°C for 2 months. AS content (%, w/w): (neat formulation): Initial: 1.50 8w: 1.46 AS content (%, w/w): ([redacted]): Initial: 1.50 8w: 1.37 AS content (%, w/w): ([redacted]): Initial: 1.50 8w: 1.38 **eCA remark:** The differences after storage are not significant. Changes does not raise concerns with regard to efficacy, toxicology and ecotoxicology.	[redacted] (2016) Report No: -
	CIPAC MT 46.3	Meta-SPC 11 (d), Incidin OxyWipe S; KitchenPro Oxy Wipes S	The formulation of Incidin OxyWipe S is stable at 45°C for 6 weeks. The phys. state, odour and colour did not	[redacted] (2015) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			change significantly following 6 weeks at 45°C. The active substance decreased by 5.3% after 6 weeks. AS content (%, w/w): Initial: 1.52 26w: 1.44 pH (neat): Initial: 2.01 26w: 2.14 **eCA remark:** The differences after storage are not significant. Changes does not raise concerns with regard to efficacy, toxicology and ecotoxicology.	
	CIPAC MT 46.3	Meta-SPC 12 (a), OxyDes Maxi Wipes	Shelf life for biocidal product OxyDes Maxi Wipes is set based on information obtained in long term storage stability tests.	-
Storage stability test – **long term storage at ambient temperature**	CIPAC MT 41.1	Meta-SPC 1 (a), Klercide Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined prior to placing the samples on storage and after 6, 12, 18 and 24 months. ***Batch [redacted]:*** AS content (%, w/w): Initial: 6.00 [redacted] 24 months: 5.74 pH (CIPAC 75.3; CIPAC 191):	[redacted] (2019) Report No: BY76TB

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			<table><tr><td></td><td>Neat</td><td>1 %</td></tr><tr><td>Initial</td><td>3.93</td><td>5.72</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>24 months</td><td>3.98</td><td>6.73</td></tr></table> Relative density: Initial: D=1.0196 [redacted] 24 months: D= 1.0187 ***Batch [redacted]:*** AS content (%, w/w): Initial: 5.92 [redacted] 24 months: 5.75 pH (CIPAC 75.3; CIPAC 191): <table><tr><td></td><td>Neat</td><td>1 %</td></tr><tr><td>Initial</td><td>4.01</td><td>5.88</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>24 months</td><td>3.85</td><td>6.83</td></tr></table> Relative density:	[redacted] (2019) Report No: RN20RP

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>Initial: D=1.0193
[redacted]
24 months: D=1.0183

<u>Appearance and packaging for both batches:</u>
Initial: Colourless, homogenous, transparent liquid with no precipitate or sedimentation.
1L, white, plastic, opaque spray bottle with a white opaque plastic spry trigger, on the end of the trigger there was a white, opaque, plastic nozzle. No signs of corrosion or degradation or seepage.
[redacted]
24 months: no change

<u>Operation of the trigger spray after storage (g/stroke):</u>
<table>
<tr><td></td><td>After storage</td><td>Spray diameter</td></tr>
<tr><td>90 % fill</td><td>1.01</td><td>373 mm</td></tr>
<tr><td>50 % fill</td><td>1.03</td><td>373 mm</td></tr>
<tr><td>10% fill</td><td>1.02</td><td>371 mm</td></tr>
</table>
Trigger sprayer type: [redacted]
Observation: No clogging was observed on the valve/dispenser.

Final storage time for Meta-SPC 1(a): 24 months</td><td>[redacted]
(2019)
Report No: WL77DB</td></tr>
<tr><td></td><td></td><td>Meta-SPC 1 (a),</td><td>Read-across [redacted]</td><td>-</td></tr>
</table>

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td>Klerwipe Sporicidal Low Residue Peroxide</td><td>eCA remark:
[redacted]
Final storage time for Meta-SPC 1(a): 24 months</td><td></td></tr>
<tr><td></td><td></td><td>Meta-SPC 2 (a),
DrySan Oxy</td><td>The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined prior to placing the samples on storage and after 6, 12, 18 and 24 months.

Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 1.09
[redacted]
24 months: 1.05

<u>pH (CIPAC 75.3; CIPAC 191):</u>
<table>
<tr><td></td><td>Neat</td><td>1 %</td></tr>
<tr><td>Initial</td><td>2.14</td><td>3.49</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>24 months</td><td>2.10</td><td>3.41</td></tr>
</table>
<u>Relative density:</u>
Initial: 1.0062
[redacted]
24 months: 1.0062</td><td>[redacted]
(2019)
Report No:
BP60CP</td></tr>
</table>

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>
Batch [redacted]
<u>AS content (%, w/w):</u>
Initial: 1.05
[redacted]
24 months: 1.03

<u>pH (CIPAC 75.3; CIPAC 191):</u>
<table>
<tr><td></td><td>Neat</td><td>1 %</td></tr>
<tr><td>Initial</td><td>2.46</td><td>3.62</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>24 months</td><td>2.43</td><td>3.67</td></tr>
</table>
<u>Relative density:</u>
Initial: 1.0076
[redacted]
24 months: 1.0071

<u>Appearance and packaging for both batches:</u>
Initial: Colourless, homogenous, transparent liquid with no precipitate or sedimentation.
1L, white, translucent plastic (HDPE) bottle with white opaque screw on pump action spray nozzle. The container has one large manufacturers’ label on. No signs of corrosion or degradation or seepage.
</td><td>[redacted]
(2019)
Report No: KH75LF</td></tr>
</table>

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>[redacted]
24 months: no change

<u>Operation of the trigger spray before and after storage (g/stroke):</u>
<table>
<tr><td></td><td>Before storage</td><td>After storage</td></tr>
<tr><td>90 % fill</td><td>1.37</td><td>1.45</td></tr>
<tr><td>50 % fill</td><td>1.32</td><td>1.42</td></tr>
<tr><td>10% fill</td><td>1.24</td><td>1.11</td></tr>
</table>
Trigger sprayer type: [redacted]
Observation: No clogging was observed on the valve/disperser before and after storage.
Final storage time for Meta-SPC 2 (a): 24 months</td><td>[redacted]
(2016)
Report No: JC75NM</td></tr>
<tr><td></td><td></td><td>Meta-SPC 3 (a),
Oxypak D;
Oxypak S;
Oxypak S10</td><td>The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined prior to placing the samples on storage and after 6, 12, 18 and 24 months.

Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 35.4
[redacted]
24 months: 35.2

<u>pH (CIPAC 75.3; CIPAC 191):</u>
<table>
<tr><td></td><td>Neat</td><td>1 %</td></tr>
</table></td><td>[redacted] (2019)
Report No: -</td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			<table><tr><td>Initial</td><td>2.83</td><td>5.76</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>24 months</td><td>2.77</td><td>5.62</td></tr></table> Relative density: Initial: D=1.1323 [redacted] 24 months: D= 1.1303 ***Batch [redacted]:*** AS content (%, w/w): Initial: 36.3 [redacted] 24 months: 35.6 pH (CIPAC 75.3; CIPAC 191): <table><tr><td></td><td>Neat</td><td>1 %</td></tr><tr><td>Initial</td><td>2.75</td><td>5.59</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>24 months</td><td>2.74</td><td>5.72</td></tr></table> Relative density: Initial: D=1.1337	[redacted] (2019) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] 24 months: D=1.1327 <u>Appearance and packaging for both batches:</u> Initial: Colourless, homogenous, transparent liquid with no precipitate or sedimentation. 20kg, blue opaque plastic container (HDPE) with red opaque plastic screw on lid. No signs of corrosion or degradation or seepage. [redacted] 24 months: no change [redacted] **Final storage time for Meta-SPC 3(a): 24 months**	
		Meta-SPC 4 (b), OxyFoam Plus; Predip PLUS; MEPA Foampro D	Read-across [redacted] **eCA remark:** [redacted]	-

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>[redacted]
Final storage time for Meta-SPC 4(b): 18 months</td><td></td></tr>
<tr><td></td><td></td><td>Meta-SPC 5 (b),
Incidin OxyFoam</td><td>The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined prior to placing the samples on storage and after 6, 12, 18 and 24 months.

Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 1.42
[redacted]
18 months: 1.41
[redacted]

<u>pH (CIPAC 75.3; CIPAC 191):</u>
<table>
<tr><td></td><td>Neat</td><td>1 %</td></tr>
<tr><td>Initial</td><td>2.41</td><td>3.85</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>18 months</td><td>2.26</td><td>3.86</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
</table>
<u>Relative density:</u>
Initial: 1.0068
[redacted]
18 months: 1.0064
[redacted]</td><td>[redacted]
(2019)
Report No:
PC92QF</td></tr>
</table>

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>
Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 1.63
[redacted]
18 months: 1.63
[redacted]

<u>pH (CIPAC 75.3; CIPAC 191):</u>
<table>
<tr><td></td><td>Neat</td><td>1 %</td></tr>
<tr><td>Initial</td><td>2.27</td><td>3.61</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>18 months</td><td>2.21</td><td>3.64</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
</table>
<u>Relative density:</u>
Initial: 1.0076
[redacted]
18 months: 1.0074
[redacted]

<u>Appearance and packaging for both batches:</u>
Initial: Colourless, homogenous, transparent liquid with no precipitate or sedimentation.
750 mL, white, plastic (PET), opaque spray bottle with a white opaque plastic spray nozzle, secured to the bottle with a white, plastic, opaque screw on lid seal, on the end of the nozzle there was a green, opaque,
</td><td>[redacted]
(2019)
Report No: BL62KN</td></tr>
</table>

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>plastic tip. No signs of corrosion or degradation or seepage.
[redacted]
18 months: no change
[redacted]

<u>Operation of the trigger spray before and after storage (g/stroke):</u>
<table>
<tr><td></td><td>Before storage</td><td>After storage</td></tr>
<tr><td>90 % fill</td><td>1.32</td><td>1.23</td></tr>
<tr><td>50 % fill</td><td>1.31</td><td>1.20</td></tr>
<tr><td>10% fill</td><td>1.30</td><td>1.13</td></tr>
</table>
Trigger sprayer type: [redacted]
Observation: Observation: No clogging was observed on the valve/disperser.

[redacted]</td><td>[redacted]
(2017)
Report No: KL49GB

[redacted] & [redacted] (2015)
Report No: -</td></tr>
</table>

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>[redacted]
Final storage time for Meta-SPC 5 (b): [redacted]
[redacted] 18 months.</td><td></td></tr>
<tr><td></td><td></td><td>Meta-SPC 5 (c),
Incidin OxyFoam S;
Klercide Sporicidal Enhanced Peroxide;
KitchenPro Oxy Foam S</td><td>The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined prior to placing the samples on storage and after 6, 12, 18 and 24 months.

Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 1.37
[redacted]
18 months: 1.24
[redacted]

<u>pH (CIPAC 75.3; CIPAC 191):</u>
<table>
<tr><td></td><td>Neat</td><td>1 %</td></tr>
<tr><td>Initial</td><td>2.30</td><td>3.37</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>18 months</td><td>2.16</td><td>3.24</td></tr>
</table></td><td>[redacted]
(2019)
Report No: KL49GB</td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted]	
			Relative density: Initial: 1.0104 [redacted] 18 months: 1.0099 [redacted]	
			Batch [redacted]: AS content (%, w/w): Initial: 1.51 [redacted] 18 months: 1.37 [redacted]	[redacted] (2019) Report No: QH74HN
			pH (CIPAC 75.3; CIPAC 191): Neat / 1 % Initial: 2.21 / 3.28 [redacted] [redacted] 18 months: 2.08 / 2.16 [redacted]	
			Relative density: Initial: 1.0115 [redacted] 18 months: 1.0109 [redacted]	

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>
<u>Appearance and packaging for both batches:</u>
Initial: Colourless, homogenous, transparent liquid with no precipitate or sedimentation.
18 months: Extremely pale yellow, homogenous, transparent liquid with no precipitate or sedimentation 750 mL, white, plastic (PET), opaque spray bottle with a white opaque plastic spray trigger (pump action), on the end of the trigger there was a red, opaque, plastic nozzle. No signs of corrosion or degradation or seepage.
[redacted]
18 months: no change
[redacted]

<u>Operation of the trigger spray before and after storage (g/stroke):</u>
<table>
<tr><td></td><td>Before storage</td><td>After storage</td></tr>
<tr><td>90 % fill</td><td>1.27</td><td>1.28</td></tr>
<tr><td>50 % fill</td><td>1.29</td><td>1.23</td></tr>
<tr><td>10% fill</td><td>1.15</td><td>0.598</td></tr>
</table>
Trigger sprayer type: [redacted]
Observation: No clogging was observed on the valve/disperser.

[redacted]
</td><td>
[redacted] (2017) Report No: JJ11KB

[redacted] & [redacted] (2015) Report No: -
</td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] [redacted] [redacted] [redacted] [redacted] **Final storage time for Meta-SPC 5 (c): 18 months**	
		Meta-SPC 6 (a), OxyDes Rapid	The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined prior to placing the samples on storage and after 6, 12, 18 and 24 months. ***Batch [redacted]:*** AS content (%, w/w): Initial: 1.93 [redacted]	[redacted] (2019) Report No: GF17VF

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>24 months: 1.93

<u>pH (CIPAC 75.3; CIPAC 191):</u>
<table>
<tr><td></td><td>Neat</td><td>1 %</td></tr>
<tr><td>Initial</td><td>2.24</td><td>3.76</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>24 months</td><td>2.26</td><td>3.67</td></tr>
</table>
<u>Relative density:</u>
Initial: 0.9809
[redacted]
24 months: 0.9804

<u>Appearance and packaging for Batch [redacted]:</u>
Initial: Slightly hazy white, uniform, transparent liquid. No sedimentation or precipitation. 1L, white, translucent plastic (HDPE) bottle with white opaque screw on pump action spray nozzle. The container has one large manufacturers’ label on. No signs of corrosion or degradation or seepage.
[redacted]</td><td></td></tr>
</table>

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>24 months: Change in appearance of the product – colourless, homogenous transparent liquid with a small amount of sedimentation at the bottom. No precipitation. Packaging – no change.

Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 1.95
[redacted]
24 months: 1.98

<u>pH (CIPAC 75.3; CIPAC 191):</u>
<table>
<tr><td></td><td>Neat</td><td>1 %</td></tr>
<tr><td>Initial</td><td>2.33</td><td>3.65</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>24 months</td><td>2.24</td><td>3.75</td></tr>
</table>
<u>Relative density:</u>
Initial: 0.9808
[redacted]
24 months: 0.9812

<u>Appearance and packaging for Batch [redacted]:</u>
Initial: Colourless, uniform, transparent liquid with a presence suspended white particles. No sedimentation</td><td>[redacted]
(2019)
Report No: HG33YV</td></tr>
</table>

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>or precipitation. 1L, white, translucent plastic (HDPE) bottle with white opaque screw on pump action spray nozzle. The container has one large manufacturers' label on. No signs of corrosion or degradation or seepage.
[redacted]
24 months: no change.
<u>Operation of the trigger spray after storage (g/stroke):</u>
<table>
<tr><td></td><td>After storage</td><td>Spray diameter</td></tr>
<tr><td>90 % fill</td><td>1.34</td><td>299 mm</td></tr>
<tr><td>50 % fill</td><td>1.33</td><td>308 mm</td></tr>
<tr><td>10% fill</td><td>1.27</td><td>310 mm</td></tr>
</table>
Trigger sprayer type: [redacted]
Observation: No clogging was observed on the valve/disperser.

Final storage time for Meta-SPC 6(a): 24 months</td><td>[redacted]
(2019)
Report No: KK50YX</td></tr>
<tr><td></td><td></td><td>Meta-SPC 7 (a),
UltraSan Floor;
Incidin OxyConcentrate</td><td>Read-across [redacted]
eCA remark:
[redacted]
Final storage time for Meta-SPC 7(a): 18 months</td><td>-</td></tr>
<tr><td></td><td></td><td>Meta-SPC 7 (b),
CidalSan Large Area;
Incidin OxyConcentrate FF;</td><td>The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined</td><td>[redacted]
(2019)</td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		KitchenPro Oxy Des Super Concentrate	prior to placing the samples on storage and after 6, 12, 18 and 24 months. ***Batch [redacted]:*** AS content (%, w/w): Initial: 4.83 [redacted] 18 months: 4.38 [redacted] pH (CIPAC 75.3): 1% (Initial): 3.29 at 19.6°C (1 min) 1% (initial): 3.28 at 19.5°C (10 min) Neat (initial): 2.07 at 18.8°C (1 min) Neat (initial): 2.06 at 18.8°C (10 min) [redacted] [redacted] 1% (18 months): 3.15 at 18.8 °C (1 min) 1% (18 months): 3.15 at 19.0 °C (10 min) Neat (18 months): 2.08 at 18.2 °C (1 min) Neat (18 months): 2.08 at 18.3 °C (10 min)	Report No: 161107ED/ CLR17437

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] Relative density: Initial: 1.0303 [redacted] 18 months: 1.0293 [redacted] Appearance for Batch [redacted]: Initial: Colourless, clear, homogeneous liquid with characteristic, very weak scent. [redacted] 18 months: no change [redacted] Packaging for Batch [redacted]: Shape: 20L, white cuboid-shaped container, HDPE, with rounded corners and integrated handle. Closure: Red, screw cap with grooves, PE. No signs of corrosion or degradation or seepage. No leak. [redacted] 18 months: no change [redacted]	[redacted]

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			Batch [redacted]: AS content (%, w/w): Initial: 4.77 [redacted] 18 months: 4.30 [redacted] pH (CIPAC 75.3; CIPAC 191): 1% (Initial): 3.25 at 19.6°C (1 min) 1% (Initial): 3.24 at 19.9°C (10 min) Neat (Initial): 1.96 at 19.2°C (1 min) Neat (Initial): 1.96 at 19.0°C (10 min) [redacted] [redacted] 1% (18 months): 3.18 at 21.5 °C (1 min) 1% (18 months): 3.18 at 21.7 °C (10 min) Neat (18 months): 2.00 at 21.4 °C (1 min) Neat (18 months): 2.01 at 21.6 °C (10 min) [redacted]	(2019) Report No: 161107ED/ CLR17436

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] Relative density: Initial: 1.0259 [redacted] 18 months: 1.0250 [redacted] Appearance for Batch [redacted]: Initial: Colourless, clear, homogeneous liquid with characteristic, very weak scent. [redacted] 18 months: no change [redacted] Packaging for Batch [redacted]: Shape: 5L, white cuboid-shaped container, HDPE, with rounded corners and integrated handle. Closure: Red, screw cap with grooves, PE. No signs of corrosion or degradation or seepage. No leak. [redacted] 18 months: no change [redacted] **Final storage time for Meta-SPC 7(b): 18 months**	

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td>Meta-SPC 8 (a),
DrySan Oxy Wipes</td><td>[redacted]. The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined prior to placing the samples on storage and after 6 and 12 months.

Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 1.07
6 months: 1.02
[redacted]

<u>pH (CIPAC 75.3; CIPAC 191):</u><table><tr><td></td><td>Neat</td><td>1 %</td></tr><tr><td>Initial</td><td>2.20</td><td>3.47</td></tr><tr><td>6 months</td><td>2.10</td><td>3.50</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr></table>
<u>Relative density:</u>
Initial: 1.0074
6 months: 1.0070
[redacted]

Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 0.982
6 months: 0.924
[redacted]</td><td>[redacted]
(2019)
Report No: VF49SP

[redacted]
(2019)
Report No: NV27TY</td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] pH (CIPAC 75.3; CIPAC 191): Neat: Initial 2.17; 6 months 2.15 1 %: Initial 3.51; 6 months 3.52 [redacted] Relative density: Initial: 1.0066 6 months: 1.0060 [redacted] Appearance and packaging for both batches: Initial: Blue absorbent (25x19.5 cm), soft opaque wipe when viewed in bulk, translucent when opened out. Large white opaque plastic (PP) tub/container with white plastic handle and a blue opaque plastic push on lid. The blue lid has a red opaque plastic pull out lid in the centre where the test item wipes can be removed. The tub has one large manufacturers' label on. No signs of corrosion or degradation or seepage. 6 months: no change [redacted] **eCA remark:**	

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] As both batches showed a decrease of hydrogen peroxide content >10% the biocide activity of this product was investigated. [redacted]. For more details please see section 2.2.5.1. **Final storage time for Meta-SPC 8 (a): 6 months**	
		Meta-SPC 8 (a), Incidin Oxy Wipe	[redacted]	[redacted] & [redacted] (2015) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] **eCA remark:** The differences after storage are not significant. Increase does not raise concerns with regard to efficacy, toxicology and ecotoxicology. Product is stable at room temperature for 1 year. **Final storage time for Meta-SPC 8 (a): 6 months**	
		Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	Read across [redacted] **eCA remark:** [redacted] **Final storage time for Meta-SPC 9(a): 18 months**	-
		Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined prior to placing the samples on storage and after 6, 12, 18 and 24 months. ***Batch*** [redacted]***:*** <u>AS content (%, w/w):</u> Initial: 6.84 [redacted] 18 months: 5.92 [redacted]	[redacted] (2019) Report No: 161129EB/ CLR17481

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			pH (1% test item, w/v): 1% test item (Initial): 1.96 at 18.6°C (1 min) 1% test item (Initial): 1.96 at 18.9°C (10 min) [redacted] 1% test item (18 months): 2.03 at 20.3°C (1 min) 1% test item (18 months): 2.04 at 20.4°C (10 min) [redacted] Relative density: Initial: 1.1082 [redacted] 18 months: 1.1042 [redacted] Appearance for Batch [redacted]: Initial: Orange, clear, homogeneous liquid with characteristic, very weak scent. [redacted] 18 months: no change [redacted] Packaging for Batch [redacted]:	

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			Shape: 5L, white cuboid-shaped container, HDPE, with rounded corners and integrated handle. Closure: Red, screw cap with grooves, PE. No signs of corrosion or degradation or seepage. No leak. [redacted] 18 months: Test container showed discernible deposits of the test item on the seal of the closure and traces of the test item around the closure. [redacted] ***Batch [redacted]:*** <u>AS content (%, w/w):</u> Initial: 6.78 [redacted] 18 months: 5.88 [redacted] <u>pH (1% test item, w/v):</u> 1% test item (Initial): 2.01 at 18.4°C (1 min) 1% test item (Initial): 1.99 at 18.6°C (10 min) [redacted] 1% test item (18 months): 2.04 at 20.3°C (1 min) 1% test item (18 months): 2.04 at 20.2°C (10 min) [redacted]	[redacted] (2019) Report No: 161129EB/ CLR17482

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] Relative density: Initial: 1.1079 [redacted] 18 months: 1.1042 [redacted] Appearance for Batch [redacted]: Initial: Orange, clear, homogeneous liquid with characteristic, very weak scent. [redacted] 18 months: no change [redacted] Packaging for Batch [redacted]: Shape: 1L, white cylindrical-shaped container, HDPE. Closure: White, screw cap with grooves, PE. No signs of corrosion or degradation or seepage. No leak. [redacted] 18 months: no change [redacted] **eCA remark:** 18 months: The active substance content decreased by 13.45% (***Batch*** [redacted]) and 13.27% (***Batch*** [redacted]) at 25°C.	

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>[redacted]
As both batches showed a decrease of hydrogen peroxide content >10% the biocide activity of this product was investigated.
[redacted] For more details please see section 2.2.5.1.

Final storage time for Meta-SPC 9(b): 18 months</td><td></td></tr>
<tr><td></td><td></td><td>Meta-SPC 10 (a),
Manosan Oxy</td><td>The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined prior to placing the samples on storage and after 6, 12, 18 and 24 months.

Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 1.31
[redacted]
18 months: 0.968
[redacted]

<u>pH (CIPAC 75.3; CIPAC 191):</u>
<table>
<tr><td></td><td>Neat</td><td>1 %</td></tr>
<tr><td>Initial</td><td>3.47</td><td>3.46</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
<tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr>
</table></td><td>[redacted]
(2019)
Report No:
CB49NC</td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			18 months | 3.86 | 3.51 [redacted] Relative density: Initial: D=1.0508 [redacted] 18 months: D=1.0500 [redacted] ***Batch [redacted]:*** AS content (%, w/w): Initial: 1.31 [redacted] 18 months: 0.970 [redacted] pH (CIPAC 75.3; CIPAC 191): | | Neat | 1 % Initial | 3.44 | 3.46 [redacted] 18 months | 3.82 | 3.55 [redacted] Relative density: Initial: D=1.0508 [redacted] 18 months: D=1.0499	[redacted] (2019) Report No: TN31DW

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] <u>Packaging for both batches:</u> Initial: 1L, white, opaque plastic (HDPE) square shaped bottle with white opaque screw on flip squirt lid. The container has a manufacturers' labels on the front and an information book at the back of the bottle. No signs of corrosion or degradation or seepage. [redacted] 18 months: no change [redacted] <u>Appearance:</u> *Batch* [redacted]: Initially colourless, homogeneous, transparent liquid, [redacted]. *Batch* [redacted]: slightly hazy white, homogeneous, translucent liquid, but after 12 months pale yellow, uniform, transparent liquid with no sedimentation or precipitation. **eCA remark:** [redacted]	

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			18 months: The active substance content decreased by 26.1% (***Batch*** [redacted]) and 26.0% (***Batch*** [redacted]) at 25°C. [redacted] As both batches showed a decrease of hydrogen peroxide content >10% the biocide activity of this product was investigated. [redacted]. For more details please see section 2.2.5.1. **Final storage time for Meta-SPC 10(a): 18 months**	
		Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	Read across [redacted] **eCA remark:** [redacted] **Final storage time for Meta-SPC 11 (c): 18 months**	-
		Meta-SPC 11 (d), Incidin OxyWipe S; KitchenPro Oxy Wipes S	The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined	[redacted] (2019)

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>prior to placing the samples on storage and after 6 and 12 months.

Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 1.42
[redacted]
18 months: 1.02

<u>pH (CIPAC 75.3; CIPAC 191):</u>
<table><tr><td></td><td>Neat</td><td>1 %</td></tr><tr><td>Initial</td><td>2.31</td><td>3.29</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>18 months</td><td>2.09</td><td>3.13</td></tr></table>
<u>Relative density:</u>
Initial: 1.0116
[redacted]
18 months: 1.0106

Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 1.43
[redacted]
18 months: 0.994

<u>pH (CIPAC 75.3; CIPAC 191):</u></td><td>Report No: MX78BM</td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			<table><tr><td></td><td>Neat</td><td>1 %</td></tr><tr><td>Initial</td><td>2.22</td><td>3.24</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>18 months</td><td>2.12</td><td>3.23</td></tr></table> <u>Relative density:</u> Initial: 1.0120 [redacted] 18 months: 1.0111 <u>Appearance and packaging for both batches:</u> Initial: White Moist absorbent square wipe (22.5x19.5 cm) 100 wipe capacity, white, opaque plastic pack with a white, opaque, hard plastic flip/push top. No signs of corrosion or degradation or seepage. [redacted] 18 months: no change **eCA remark:** [redacted] 18 months: The active substance content decreased by 28.2% (***Batch*** [redacted]) and 30.5% (***Batch*** [redacted]) at 25°C.	

<table>
<tr><th>Property</th><th>Guideline and Method</th><th>Tested Product (Meta Identifier, Trade name)</th><th>Results</th><th>Reference</th></tr>
<tr><td></td><td></td><td></td><td>As both batches showed a decrease of hydrogen peroxide content >10% the biocide activity of this product was investigated.
[redacted]
For more details please see section 2.2.5.1.

Final storage time for Meta-SPC 11 (d): 18 months</td><td></td></tr>
<tr><td></td><td></td><td>Meta-SPC 12 (a),
OxyDes Maxi Wipes</td><td>The hydrogen peroxide content, appearance, pH, acidity/alkalinity, and density were all determined prior to placing the samples on storage and after 6, 12 and 18 months.
Batch [redacted]:
<u>AS content (%, w/w):</u>
Initial: 2.06
[redacted]
12 months: 1.91
[redacted]

<u>pH (CIPAC 75.3; CIPAC 191):</u><table><tr><td></td><td>Neat</td><td>1 %</td></tr><tr><td>Initial</td><td>2.19</td><td>3.61</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr><tr><td>12 months</td><td>2.23</td><td>3.59</td></tr><tr><td>[redacted]</td><td>[redacted]</td><td>[redacted]</td></tr></table>
<u>Relative density:</u>
Initial: 0.9837</td><td>[redacted]
(2019)
Report No:
NT57GK</td></tr>
</table>

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted] 12 months: 0.9869 [redacted] ***Batch [redacted]:*** AS content (%, w/w): Initial: 2.04 [redacted] 12 months: 1.87 [redacted] pH (CIPAC 75.3; CIPAC 191): Neat / 1 % Initial: 2.30 / 3.81 [redacted] 12 months: 2.36 / 3.82 [redacted] Relative density: Initial: 0.9821 [redacted] 12 months: 0.9849 [redacted] Appearance and packaging for both batches: Initial: Blue absorbent (25x19.5 cm), soft opaque wipe when viewed in bulk, translucent when opened out. Large white opaque plastic (PP) tub/container with white plastic handle and a blue opaque plastic push on lid. The blue lid has a red opaque plastic pull	[redacted] (2019) Report No: SG84WN

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			out lid in the centre where the test item wipes can be removed. The tub has two large manufacturers' labels on. No signs of corrosion or degradation or seepage. [redacted] 12 months: no change [redacted] **eCA remark:** [redacted] **Final storage time for Meta-SPC 12(a): 12 months**	
	eCA remarks on accelerated and long-term storage stability testing: [redacted] The shelf-life data provided result in the following shelf-life's per meta SPC: Meta-SPC 1: 24 months Meta-SPC 2: 24 months Meta-SPC 3: 24 months			

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
	Meta-SPC 4: 18 months Meta-SPC 5: 18 months Meta-SPC 6: 24 months Meta-SPC 7: 18 months Meta-SPC 8: 6 months Meta-SPC 9: 18 months Meta-SPC 10: 18 months Meta-SPC 11: 18 months Meta-SPC 12: 12 months The products in Meta-SPC 1, 2, 3, 5, 8 and 11 are to be stored at temperatures not exceeding 35^0C, the products in Meta-SPC 4, 7, 9 and 10 are to be stored at temperatures not exceeding 25^0C [redacted], and Meta-SPC 6 and Meta-SPC 12 is to be stored at temperatures not exceeding 30^0C based on flammable liquids testing. During long term storage stability at ambient temperatures, all products were stored in original packaging and no signs of corrosion or degradation or seepage were observed. [redacted]		
Storage stability test – **low temperature stability test for liquids**	-	Meta-SPC 1	Refer to Conclusion for all products in the Hydrogen Peroxide Biocidal Product Family: [redacted]	-

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			[redacted]	
	CIPAC MT 39.3	Meta-SPC 2 (a), DrySan Oxy	Product is stable at at 0 ± 2 °C for 7 days. The product was a homogenous colourless transparent liquid with no signs of precipitation or sedimentation or separated phases at the initial timepoint and at 7 days at 0 ± 2 °C. No change in appearance or colour after storage for 7 days at 0°C ± 2 °C were observed.	[redacted] (2016) Report No: NJ51MN
	CIPAC MT 39.3	Meta-SPC 3 (a), Oxypak D	Product is stable at 0°C ± 2 °C for 7 days. The product was a colourless, transparent liquid with no signs of precipitation or sedimentation or separated phases at the initial timepoint and at 7 days at 0 ± 2 °C No change in appearance or colour or after storage for 7 days at 0°C ± 2 °C were observed.	[redacted] (2016) Report No: CS22KM
	CIPAC MT 39.3	Meta-SPC 10 (covering Meta-SPC 4), Manosan Oxy	Product is stable at 5°C for 8 weeks. No change in appearence, colour or odour after storage for 8 weeks at 5°C were observed.	[redacted] Report No: RB/190116/1 [redacted]

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			Product is stable at 0°C for 7 days. No change in appearence, colour or odour after storage for 7 days at 0°C were observed.	(2016) Report No: BQ32NT
	CIPAC MT 39.3	Meta-SPC 5 (b), Incidin OxyFoam	Product is stable at 5°C for 26 weeks. No solid particles or separated liquid were observed following 26 weeks storage at 5°C. Product is stable at 0°C ± 2 °C for 7 days. No change in appearance or colour after storage for 7 days at 0°C ± 2 °C were observed. Time point (Initial): Slightly hazy transparent liquid with no signs of precipitation or sedimentation or separated phases Time point (7 days at 0 ± 2 °C): Colourless transparent single-phase liquid with a small amount of white solid separated material at the base of the centrifuge tube. After equilibration for 24 hours: Colorless transparent single-phase liquid with less than 0.05 mL of white separated material at the base of the centrifuge tube. The solid matter did not move after inverting. Following phrase will be stated on the SPC: "Protect from frost" [redacted].	[redacted] & [redacted] (2015) Report No: - [redacted] (2017) Report No: YR45WG
	CIPAC MT 39.3	Meta-SPC 5 (c), Incidin OxyFoam S	Product is stable at 5°C for 26 weeks. No solid particles or separated liquid were observed following 26 weeks storage at 5°C.	[redacted] & [redacted] (2015) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			Product is stable at 0°C ± 2 °C for 7 days. No change in appearance or colour or after storage for 7 days at 0°C ± 2 °C were observed. Time point (Initial): Slightly hazy transparent liquid with no signs of precipitation or sedimentation or separated phases. Time point (7 days at 0 ± 2 °C): Colourless transparent liquid with a small amount of white separated material at the base of the centrifuge tube. After equilibration for 24 hours: Colourless transparent liquid with less than 0.05 mL of white separated material at the base of the centrifuge tube. The solid matter did not move after inverting. Following phrase will be stated on the SPC: "Protect from frost" [redacted].	[redacted] (2017) Report No: RH01CH
	CIPAC MT 39.3	Meta-SPC 6 (a) OxyDes Rapid	Product is stable at 5°C for 26 weeks. No solid particles or separated liquid were observed following 26 weeks storage at 5°C. Product is stable at 0°C ± 2 °C for 7 days. No change in appearance or colour after storage for 7 days at 0°C were observed. The product was a homogenous colourless transparent liquid with no signs of precipitation or sedimentation or separated phases at the initial timepoint and at 7 days at 0 ± 2 °C.	[redacted] (2015) Report No: RB28122015/01 [redacted] (2016) Report No: MG86LH

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Meta-SPC 7	It is proposed that the following phrase from the "Guidance on the Biocidal Products Regulation, Volume I, Parts A, B and C; Version 2.0 (May 2018)" for Regulation (EU) No 528/2012 (BPR), is stated on the SPC: "Protect from frost" A low temperature stability test for the products in meta 7 is therefore not required.	
		Meta-SPC 8	Meta-SPC 8 covers wipe products. Low temperature stability test (liquids) is not applicable to wipes.	-
		Meta-SPC 9	It is proposed that the following phrase from the "Guidance on the Biocidal Products Regulation, Volume I, Parts A, B and C; Version 2.0 (May 2018)" for Regulation (EU) No 528/2012 (BPR), is stated on the SPC: "Protect from frost" A low temperature stability test for the products in meta 9 is therefore not required.	
	CIPAC MT 39.3	Meta-SPC 10 (covering Meta-SPC 4), Manosan Oxy	Product is stable at 5°C for 8 weeks. No change in appearence, colour or odour after storage for 8 weeks at 5°C were observed. Product is stable at 0°C ± 2 °C for 7 days. No change in appearance or colour after storage for 7 days at 0°C ± 2 °C were observed. The product was a colourless, transparent, single phase, slightly viscous liquid with no signs of precipitation or sedimentation or separated phases at the initial timepoint and at 7 days at 0 ± 2 °C.	[redacted] Report No: RB/190116/1 [redacted] (2016) Report No: BQ32NT

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Meta-SPC 11	Meta-SPC 11 covers wipe products. Low temperature stability test (liquids) is not applicable to wipes.	-
		Meta-SPC 12	Meta-SPC 12 covers wipe products. Low temperature stability test (liquids) is not applicable to wipes.	-
	CIPAC MT 39.3	Conclusion for all products in the Hydrogen Peroxide Biocidal Product Family	[redacted]	-
Effects on content of the active substance and technical characteristics of the biocidal product - **light**	-	All products in the Hydrogen Peroxide Biocidal Product Family	Packaging precludes light, therefore no impact on content of active substance due to light is not expected.	-

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
Effects on content of the active substance and technical characteristics of the biocidal product – **temperature and humidity**	-	All products in the Hydrogen Peroxide Biocidal Product Family	[redacted] (label should state: "do not store >35^{0}C"). [redacted]	-
Effects on content of the active substance and technical characteristics of the biocidal product - **reactivity towards container material**	-	All products in the Hydrogen Peroxide Biocidal Product Family	Reactivity towards container material will be covered in long term storage stability tests. Please see section 2.2.2.	-
Wettability	-	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. All products of the biocidal product family are liquid products, gels or wipes. Testing of wettability is required for solid preparations which are to be dispersed in water.	-

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
Suspensibility, spontaneity and dispersion stability	-	All products in the Hydrogen Peroxide Biocidal Product Family	Testing of suspensibility, spontaneity and dispersion stability is not applicable as all products of the biocidal product family are liquid products, gels or wipes. Testing of suspensibility, spontaneity and dispersion is foreseen for powders, granules and suspension concentrates.	-
Wet sieve analysis and dry sieve test	-	All products in the Hydrogen Peroxide Biocidal Product Family	Wet sieve analysis and dry sieve is not applicable as all products of the biocidal product family are liquid products, gels or wipes. The wet sieve analysis is applicable to wettable powders, suspension concentrates, water dispersible granules, aqueous capsule suspensions, dispersible concentrates, suspo-emulsions, water soluble granules and water soluble powders. Dry sieve test is designed for dustable powders and granules for direct application.	-
Emulsifiability, re-emulsifiability and emulsion stability	-	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. All products of the biocidal product family are liquid products, gels or wipes and thus, testing of emulsifiability, re-emulsifiability and emulsion stability is not applicable.	-
Disintegration time	-	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. All products of the biocidal product family are ready to use liquid products/ wipes. Testing of disintegration time is required for tablets to be dissolved in water.	-
Particle size distribution,		Meta-SPC 1,	Dv (10%): 53.13 µm Dv (50%): 101 µm	[redacted] (2019) Report No: -

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
content of dust/fines, attrition, friability		Klercide Sporicidal Low Residue Peroxide (Batch [redacted]; 1L trigger sprayer)	Dv (90%): 235.3 µm The determined MMAD is > 50µm.	
		Meta-SPC 2 (a), DrySan Oxy (Batch [redacted]; 1L trigger sprayer)	Dv (10%): 64.38 µm Dv (50%): 120.1 µm Dv (90%): 294.4 µm The determined MMAD is > 50µm.	[redacted] (2019) Report No: -
		Meta-SPC 5 (b), Incidin OXyFoam (Batch [redacted]; 750 mL trigger sprayer)	Dv (10%): 803.3 µm Dv (50%): 1388 µm Dv (90%): 2042 µm The determined MMAD is > 50µm.	[redacted] (2019) Report No: -
		Meta-SPC 5 (c), Incidin OxyFoam S (Batch [redacted]; 750 mL trigger sprayer)	Dv (10%): 411.8 µm Dv (50%): 1108 µm Dv (90%): 1897 µm The determined MMAD is > 50µm.	[redacted] (2019) Report No: -
		Meta-SPC 6 (a), OxyDes Rapid (Batch [redacted]; 1L trigger sprayer)	Dv (10%): 62.63 µm Dv (50%): 134.7 µm Dv (90%): 1669 µm The determined MMAD is > 50µm.	[redacted] (2019) Report No: -
		eCA remark: [redacted]		
Persistent foaming		Products in Meta-SPC 1, Meta-SPC 2, Meta-SPC 4, Meta-SPC 5, Meta-SPC 6, Meta-SPC 8,	Persistent foaming is not relevant for products in these Meta groups as they are ready to use products	-

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Meta-SPC 10, Meta-SPC 11 and Meta-SPC 12.		
		Products in Meta-SPC 3	The products are delivered in the form of 35% In reference to the H2O2 active substance approval, Hydrogen peroxide is miscible with water in all proportions.	-
		Meta-SPC 7, Test preformed on **CidalSan Large Area**	The mean volume of persistent foam of a 2% v/v solution of CidalSan Large Area was determined to be >104 mL after 10 seconds and > 98 mL after 1 minute and also after 3 and 12 minutes The mean volume of persistent foam of a 20% (v/v) solution of CidalSan Large Area was determined to be > 101 mL after 10 seconds > 98 mL after 1 minute and 3 minutes and about 79 mL after 12 minutes [redacted]	[redacted] (2017) Report No: 161107ED/CFO17436
		Meta-SPC 9, Test preformed on **Maxx Oxy Des 2**	The mean volume of persistent foam of a 2% (v/v) solution of Maxx Oxy Des 2 was determined to be: >101 mL after 10 seconds >99 mL after 1 minute and >98 mL after 3 and 12 minutes The mean volume of persistent foam of a 3% (v/v) solution of Maxx Oxy Des 2 was determined to be: > 102 mL after 10 seconds	[redacted] (2017) Report No: 161129EB/CFO17481

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			and >98 mL after 1 minute and also >98 mL after 3 and 12 minutes [redacted]	
Flowability/ Pourability/ Dustability	-	All products in the Hydrogen Peroxide Biocidal Product Family	Flowability / Pourability / Dustability testing is not applicable as all products of the biocidal product family are liquid products, gels or wipes. Testing of flowability / pourability / dustability is applicable only to solid preparations, suspension concentrates, capsule suspensions and suspoemulsions	-
Burning rate — smoke generators	-	All products in the Hydrogen Peroxide Biocidal Product Family	All products of the biocidal product family are liquid products, gels or wipes. Thus, testing of burning rate is not applicable.	-
Burning completeness — smoke generators	-	All products in the Hydrogen Peroxide Biocidal Product Family	All products of the biocidal product family are liquid products, gels or wipes. Thus, testing of completeness is not applicable.	-
Composition of smoke — smoke generators	-	All products in the Hydrogen Peroxide Biocidal Product Family	All products of the biocidal product family are liquid products, gels or wipes. Thus, testing of composition of smoke is not applicable.	-
Spraying pattern — aerosols	-	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. None of the products in the family are formulated as aerosols.	-
Physical compatibility	-	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November	-

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			2014. The products in this family are not intended to be used in conjunction with any other biocidal products	
Chemical compatibility	-	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014.The products in this family are not intended to be used in conjunction with any other biocidal products	-
Degree of dissolution	-	All products in the Hydrogen Peroxide Biocidal Product Family	Degree of dissolution is not relevant to is not applicable as all products of the biocidal product family are liquid products, gels or wipes.	-
Dilution stability	-	Products in Meta-SPC 1, Meta-SPC 2, Meta-SPC 3, Meta-SPC 4, Meta-SPC 5, Meta-SPC 6, Meta-SPC 8, Meta-SPC 10, Meta-SPC 11 and Meta-SPC 12.	Dilution stability is not relevant for products in these Meta groups as they are ready to use products	-
	CIPAC MT 41.1	Meta-SPC 7, Test preformed on **CidalSan Large Area**	Before storage: Initial: clear, colourless, homogeneous liquid 30 mins: clear, colourless, homogeneous liquid 24 hours: clear, colourless, homogeneous liquid After storage: Initial: clear, colourless, homogeneous liquid 30 mins: clear, colourless, homogeneous liquid 24 hours: clear, colourless, homogeneous liquid **eCA remark:** [redacted]	[redacted] & [redacted] (2018) Report No: - [redacted] (2019) Report No: 161107ED/ CLR17437 and 161107ED/ CLR17436

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
	CIPAC MT 41.1	Meta-SPC 9, Test preformed on **Maxx Oxy Des 2**	Before storage: Initial: clear, golden yellow, homogeneous liquid 30 mins: clear, golden yellow, homogeneous liquid 24 hours: clear, golden yellow, homogeneous liquid After storage: Initial: clear, golden yellow, homogeneous liquid 30 mins: clear, golden yellow, homogeneous liquid 24 hours: clear, golden yellow, homogeneous liquid **eCA remark:** [redacted]	[redacted] & [redacted] (2018) Report No: - [redacted] (2019) Report No: 161129EB/ CLR17481 and Report No: 161129EB/ CLR17482
Surface tension	EC Method A.5. /OECD 115	Meta-SPC 1 (a), Test preformed on **Klercide Sporicidal Low Residue Peroxide**	Surface tension at 20.0 +/- 0.5 degrees C (1 g/L solution): 62.3 to 72.8 mN/m The test item was considered not to be surface active	[redacted] (2017) Report No: WR60PT
	EC Method A.5. /OECD 115	Meta-SPC 2 (a), Dry San Oxy	The surface tension of the aqueous sample solutions of test item, prepared at the maximum application rate (100%, Neat Formulation), and on samples at 1 g/L at 20.0 +/- 0.5 degrees C has been determined Maximum application concentration: 30.5 mN/m Surface active: Yes 1 g/L solution: 59.0 to 60.5 mN/m Surface active: Yes	[redacted] (2016) Report No: GL69PL
	EC Method A.5. /OECD 115	Meta-SPC 3 (a), Test preformed on **Oxypak D**	The surface tension of duplicate solutions (1.0 g/L) of test item in water has been determined to be 72.5 mN/m at 20.0 ± 0.5 °C. The test item was considered not to be surface-active.	[redacted] (2017) Report No: JB52KQ

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
	EC Method A.5. /OECD 115	Meta-SPC 4 (b) OxyFoam Plus; MEPA Foampro D; Predip PLUS	Maximum application concentration: 29.4 mN/m Surface active: Yes	[redacted] & [redacted] (2018) Report No: -
	EC Method A.5. /OECD 115	Meta-SPC 5 (b), Incidin OxyFoam	The surface tension of Incidin OxyFoam, at the maximum application concentration recommended (100%, neat formulation), and on samples at 1 g/L has been determined. Surface tension at 20.0 +/- 0.5 degrees C Maximum application concentration: 30.5 mN/m Surface active: Yes 1 g/L Solution: 60.5 to 61.0 mN/m Surface active: No	[redacted] (2017) Report No: XM29DH
	EC Method A.5. /OECD 115	Meta-SPC 5 (c), Incidin OxyFoam S	The surface tension of the test item at the maximum application rate (100%, Neat Formulation), and on samples at 1 g/L at 20.0 +/- 0.5 degrees C has been determined. Maximum application concentration: 30.5 mN/m Surface active: Yes 1 g/L solution: 56.0 mN/m Surface active: Yes	[redacted] (2017) Report No: QK76FP
	EC Method A.5. /OECD 115	Meta-SPC 6 (a), OxyDes Rapid	The surface tension of the aqueous sample solutions of test item, prepared at the maximum application rate (100%, Neat Formulation), and on samples at 1 g/L at 20.0 +/- 0.5 degrees C has been determined. Maximum application concentration: 31.5 mN/m Surface active: Yes	[redacted] (2016) Report No: JV12TG

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
			1 g/L solution: 71.5 to 72.0 mN/m Surface active: No	
	EC Method A.5. /OECD 115	Meta-SPC 7 (a), Incidin OxyConcentrate; UltraSan Floor	Read across [redacted] **eCA remark:** [redacted]	
	EC Method A.5. /OECD 115	Meta-SPC 7 (b), Test preformed on **CidalSan Large Area**	The surface tension of a 20% (v/v) saturated aqueous solution of the test item, corresponding to its highest in use concentration was determined to at 20 degrees C to be: 29.89 mN/m (Standard deviation +/- 0.05 mN/m). Test item was considered to be surface-active.	[redacted] (2016) Report No: 161107ED/CPT17436
	-	Meta-SPC 8, DrySan Oxy Wipes; Incidin OxyWipe	Not applicable to wipes	-
	EC Method A.5. /OECD 115	Meta-SPC 9 (b), Maxx Oxy Des 2	The surface tension of a 3% (v/v) aqueous solution of the test item Maxx Oxy Des 2, corresponding to its highest in use concentration, was determined at 20 degrees C to be 27.69 mN/m (standard deviation +/- 0.03 mN/m). Test item was considered to be surface-active.	[redacted] (2017) Report No: 161129EB/CPT17481
	EC Method A.5. /OECD 115	Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	Read across [redacted] **eCA remark:** [redacted]	-

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
	EC Method A.5. /OECD 115	Meta-SPC 10 (a), Manosan Oxy	The surface tension of the aqueous sample solutions of test item, prepared at the maximum application rate (100%, Neat Formulation), and on samples at 1 g/L at 20.0 +/- 0.5 degrees C has been determined Maximum application concentration: 31.2 to 31.7 mN/m Surface active: Yes 1 g/L solution: 37.3 to 37.8 mN/m Surface active: Yes	[redacted] (2016) Report No: HQ74WG
	-	Meta-SPC 11, Klerwipe Sporicidal Enhanced Peroxide KitchenPro Oxy Wipes S; Incidin OxyWipe S	Not applicable to wipes	-
	-	Meta-SPC 12 (a), OxyDes Maxi Wipes	Not applicable to wipes	-
Viscosity	OECD 114	Meta-SPC 1 (a), Test preformed on Klercide Sporicidal Low Residue Peroxide	Kinematic viscosity (mm^2/s): 20 ºC: 1.00 40 ºC: 0.759	[redacted] (2017) Report No: LL49FS
	OECD 114	Meta-SPC 2 (a), Dry San Oxy	Kinematic viscosity (mm^2/s): 20 ºC: 1.07 40 ºC: 0.704	[redacted] (2017) Report No: YT33LW
	OECD 114	Meta-SPC 3 (a), Oxypak D; Oxypak S; Oxypak S10	Kinematic viscosity (mm^2/s): 20 ºC: 0.999 40 ºC: 0.755	[redacted] (2017) Report No: HC40SY

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
	OECD 114	Meta-SPC 4 (b), OxyFoam Plus; MEPA Foampro D; Predip PLUS	Kinematic viscosity (mm^2/s): 20 ºC: 2.25	[redacted] & [redacted] (2018) Report No: -
	OECD 114	Meta-SPC 5 (b), Incidin OxyFoam	Kinematic viscosity (mm^2/s): 20 ºC: 1.07 40 ºC: 0.878	[redacted] (2017) Report No: DT35CN
	OECD 114	Meta-SPC 5 (c), Incidin OxyFoam S	Kinematic viscosity (mm^2/s): 20 ºC: 1.08 40 ºC: 0.792	[redacted] (2017) Report No: MH38QN
	OECD 114	Meta-SPC 6 (a), OxyDes Rapid	Kinematic viscosity (mm^2/s): 20 ºC: 2.11 40 ºC: 1.18	[redacted] (2016) Report No: XG93XL
	OECD 114	Meta-SPC 7 (a), Incidin OxyConcentrate; UltraSan Floor	Read across [redacted] **eCA remark:** [redacted]	-
	OECD 114	Meta-SPC 7 (b), Test preformed on CidalSan Large Area	Kinematic viscosity (mm^2/s): 20 ºC: 1.50 40 ºC: 1.03	[redacted] (2017) Report No: CSL-16-2353.02
	-	Meta-SPC 8, DrySan Oxy Wipes; Incidin OxyWipe	Not applicable to wipes	-

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
	OECD 114	Meta-SPC 9 (b), Maxx Oxy Des 2	Kinematic viscosity (mm^2/s): 20 ºC: 21.88 40 ºC: 10.60 **eCA remark:** [redacted]	[redacted] (2017) Report No: CSL-16-2559.02
	OECD 114	Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	Read across [redacted] **eCA remark:** [redacted]	-
	OECD 114	Meta-SPC 10 (a), Manosan Oxy	Kinematic viscosity (mm^2/s): 20 ºC: 1.41 x 10^3 40 ºC: 561 **eCA remark:** [redacted]	[redacted] (2016) Report No: HH87SK
	-	Meta-SPC 11,	Not applicable to wipes	-

Property	Guideline and Method	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Klerwipe Sporicidal Enhanced Peroxide KitchenPro Oxy Wipes S; Incidin OxyWipe S		
	-	Meta-SPC 12 (a), OxyDes Maxi Wipes	Not applicable to wipes	-

2.2.3 Physical hazards and respective characteristics

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
Explosives	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	[redacted]	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted], explosive properties are not expected.	
Flammable gases	-	Refer to composition in	All products in the Hydrogen Peroxide	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I,	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Confidential Annex 3.6	Biocidal Product Family	Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. There are no gases in this biocidal product family.	
Flammable aerosols	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. There are no aerosol products in this family	-
Oxidising gases	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. There are no gases in this biocidal product family.	-
Gases under pressure	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. There are no gases in this biocidal product family.	-
Flammable liquids	-	Refer to composition in Confidential Annex 3.6	All Products of meta-SPC 1 (a) waiver	[redacted]	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted]	
	DIN EN ISO 2719		Meta-SPC 2 (a), DrySan Oxy	The flash point has been determined to be ≥97.0ºC. The product was considered not to be flammable liquid.	[redacted] (2017) Report No: 17-08708
			All Products of meta-SPC 3 (a) waiver	[redacted]	-
	DIN EN ISO 2719		All Products of Meta-SPC 4 (b) and Meta-SPC 10 (a)	The flash point has been determined to be ≥67.0ºC. The product was considered not to be flammable liquid.	[redacted] (2017) Report No: 17-08708
	EU A.9 (Flash point)		Meta-SPC 5 (b), Incidin Oxyfoam	The flash point has been determined to be below boiling temperature of the product.	[redacted] (2017)

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
	DIN EN ISO 3679			The product was considered not to be flammable liquid.	Report No: DJ85XW
	EU A.9 (Flash point) DIN EN ISO 3679		Meta-SPC 5 (c), Incidin Oxyfoam S; Klercide Sporicidal Enhanced Peroxide; KitchenPro Oxy Foam S	The test item has been determined to not have a flash point below its boiling temperature, therefore the test item can be considered as non-flammable.	[redacted] (2017) NG87PN
	ISO 13736		Meta-SPC 6 (a), OxyDes Rapid	The flash point of the test item has been determined to be 35.5°C. The test item is therefore classified as flammable **Flam.Liq.3 (H226)**.	[redacted] (2016) Report No: 16-02125
	EU A.9 (Flash point) DIN EN ISO 3679		Meta-SPC 7 (a), UltraSan Floor; Incidin OxyConcentrate	Read across [redacted] **eCA remark:** [redacted]	-
	EU A.9 (Flash point) DIN EN ISO 3679		Meta-SPC 7 (b), CidalSan Large Area; KitchenPro Oxy Des Concentrate; Incidin OxyConcentrate FF	The test item has no flash point up to a temperature of 136 °C. As the test item has no flash point up to a temperature of 136 °C, it has not to be classified as flammable liquid.	[redacted] (2017) Report No: CSL-16-2353.01
	EU A.9 (Flash point)		Meta-SPC 8 (a), DrySan Oxy Wipes; Incidin Oxy Wipe	The flash point has been determined to be 66±2ºC.	[redacted] (2016)

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
	DIN EN ISO 3679			The product was considered not to be flammable liquid. The flash point has been determined to be 105±2ºC. The product was considered not to be flammable liquid.	Report No: KP02KW [redacted] (2017) Report No: 17-08708
	EU A.9 (Flash point) DIN EN ISO 2719		Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	Read across [redacted] **eCA remark:** [redacted]	-
	EU A.9 (Flash point) DIN EN ISO 2719		Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	The test item Maxx Oxy Des 2 has no flash point up to a temperature of 86 °C. As the test item has no flash point up to a temperature of 86 °C, it has not to be classified as flammable liquid.	[redacted] (2017) Report No: CSL-16-2559.01
	EU A.9 (Flash point)		Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	Read across [redacted] **eCA remark:** [redacted]	-
	EU A.9 (Flash point)		Meta-SPC 11 (d), Incidin OxyWipe S;	The test item has been determined to not have a flash point below its boiling	[redacted] (2017)

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
	DIN EN ISO 3679		KitchenPro Oxy Wipes S	temperature, therefore the test item can be considered as non-flammable.	Report No: MB10BG
	ISO 13736		Meta-SPC 12 (a), OxyDes Maxi Wipes	Read across [redacted] **eCA remark:** [redacted]	-
Flammable solids	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. There are no solid formulations in this biocidal product family.	-
Self-reactive substances and mixtures	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	[redacted]	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted]	

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted]	
Pyrophoric liquids	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. The products of biocidal product family do not contain ingredients classified for this hazard. Thus, it is also not expected that the products of the biocidal product family will evolve such properties	-
Pyrophoric solids	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. There are no solid formulations in this biocidal product family.	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
Self-heating substances and mixtures	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. The products of biocidal product family do not contain ingredients classified for this hazard. Thus, it is also not expected that the products of the biocidal product family will evolve such properties.	-
Substances and mixtures which in contact with water emit flammable gases	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. The products of this biocidal product family contain water. Thus, it is not expected that flammable gases will be emitted after contact with water.	-
Oxidising liquids	EU A. 21 (Oxidising properties)	Refer to composition in Confidential Annex 3.6	Meta-SPC 1 (a), Klercide Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	The test item has been determined not to have oxidising properties as the test item/cellulose mixtures showed no significant pressure rise over the time period of least 60 seconds. Therefore, the pressure rise time for the test item/cellulose mixtures was slower than the mean pressure rise time for the nitric acid/cellulose mixtures.	[redacted] (2011) Report No: 41004003
	EU A. 21 (Oxidising properties)	Refer to composition in Confidential Annex 3.6	Meta-SPC 1 (a), Klerwipe Sporicidal Low Residue Peroxide	Read across [redacted] **eCA remark:**	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted]	
	Test O.2. of the United Nations Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria	Refer to composition in Confidential Annex 3.6	Meta-SPC 2 (a), DrySan Oxy	The test item has been classified not to have oxidizing properties as the pressure rise was less than 2070 kPa for the test item/cellulose mixtures over 60 seconds of heating. This was slower than the mean pressure rise time for the nitric acid/cellulose reference mixtures. The test item therefore does not trigger any of the criteria requiring classification of it as an oxidizing liquid.	[redacted] (2016) Report No: WC13BV
	Test O.2. of the United Nations Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria	Refer to composition in Confidential Annex 3.6	Meta-SPC 3 (a), Oxypak D; Oxypak S; Oxypak S10	The test item has been classified not to have oxidizing properties as the mean pressure rise time for the test item/cellulose mixtures was slower than the mean pressure rise time for the nitric acid/cellulose reference mixtures. The test item therefore does not trigger any of the criteria requiring classification of it as an oxidizing liquid.	[redacted] (2016) Report No: RY60HG
	Test O.2. of the United Nations Recommendations on the Transport of Dangerous Goods Manual	Refer to composition in Confidential Annex 3.6	Meta-SPC 4 (b), OxyFoam Plus; MEPA Foampro; Predip PLUS	Read across [redacted] **eCA remark:** [redacted]	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
	of Tests and Criteria				
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 5 (b), Incidin OxyFoam	Read-across [redacted] **eCA remark:** [redacted]	-
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 5 (c), Incidin OxyFoam S; Klercide Sporicidal Enhanced Peroxide; KitchenPro Oxy Foam S	Read-across [redacted] **eCA remark:** [redacted]	-
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 6 (a), OxyDes Rapid	The test item has been classified not to have oxidizing properties as the pressure rise was less than 2070 kPa for the test item/cellulose mixtures over 60 seconds of heating. This was slower than the mean pressure rise time for the nitric acid/cellulose reference mixtures. The test item therefore does not trigger any of the criteria requiring classification of it as an oxidizing liquid.	[redacted] (2016) Report No: DQ37FS

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 7 (a), UltraSan Floor; Incidin OxyConcentrate	Read-across [redacted] **eCA remark:** [redacted]	-
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 7 (b), CidalSan Large Area; Incidin OxyConcentrate FF; KitchenPro Oxy Des Super Concentrate	The mean pressure rise time for the test item CidalSan Large Area, [redacted] (>60 s) is greater than the mean pressure rise time for the reference item nitric acid 65 % (2.56 s). The test item CidalSan Large Area, [redacted] showed no oxidizing properties according to the Regulation EC No. 440/2008 Method A.21. Oxidizing Properties of Liquids. According to the results of the test on oxidizing properties of liquids, the test item is classified as following: UN Transport Regulation: The test item does not have to be classified as oxidizing substance in division 5.1 according to the UN Transport Regulation.	[redacted] (2017) Report No: CSL-16-2353.03

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				GHS (CLP Regulation EC 1272/2008: Annex 1: 2.13): The test item does not have to be classified as oxidizing liquid according to GHS or CLP Regulation EC 1272/2008 Annex 1.	
	Test O.2. of the United Nations Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria	Refer to composition in Confidential Annex 3.6	Meta-SPC 8 (a), DrySan Oxy Wipes; Incidin OxyWipe	Read across [redacted] **eCA remark:** [redacted]	-
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	Read-across [redacted] **eCA remark:** [redacted]	-
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	The mean pressure rise time for the test item taken from three tests is greater than the mean pressure rise time for the reference item nitric acid 65 %.	[redacted] (2017) Report No:

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				The test item does not have to be classified as *oxidizing substance* in division 5.1 according to the UN Transport Regulation. The test item does not have to be classified as *oxidizing liquid* according to GHS or CLP Regulation EC 1272/2008 Annex 1.	
	Test O.2. of the United Nations Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria	Refer to composition in Confidential Annex 3.6	Meta-SPC 10 (a), Manosan Oxy	The test item has been classified not to have oxidizing properties as the mean pressure rise time for the test item/cellulose mixtures was slower than the mean pressure rise time for the nitric acid/cellulose reference mixtures. The test item therefore does not trigger any of the criteria requiring classification of it as an oxidizing liquid.	[redacted] (2016) Report No: HR02PR
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	Read-across [redacted] **eCA remark:** [redacted]	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 11 (d), Incidin OxyWipe S; KitchenPro Oxy Wipes S	Read-across [redacted] **eCA remark:** [redacted]	-
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 12 (a), OxyDes Maxi Wipes	Read-across [redacted] **eCA remark:** [redacted]	-
Oxidising solids	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable according to "Guidance on the Biocidal Products Regulation, Volume I, Part A" for Regulation (EU) No 528/2012 (BPR), Version 1.1, November 2014. Not applicable to the products which are liquid formulations or gels.	-
Organic peroxides	QATM 317	Refer to composition in	Meta-SPC 1 and Meta-SPC 3	Not applicable. [redacted]	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Confidential Annex 3.6			
	QATM 317	Refer to composition in Confidential Annex 3.6	Meta-SPC 4 and 10	[redacted]	[redacted] (2018) Report No: -

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted] It can therefore be concluded that none of the products in the Meta-SPC 4 and Meta-SPC 11 should be classified as organic peroxides.	
	QATM 317	Refer to composition in Confidential Annex 3.6	Meta-SPC 2, 5 and 8 (also covering Meta-SPC 11 due to similar composition)	[redacted]	[redacted] (2018) Report No: - [redacted] (2019) Report No: -

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted] It can therefore be concluded that none of the products in the Meta-SPC 2, 5 8 and 11 should be classified as organic peroxides.	
	QATM 317	Refer to composition in	Meta-SPC 6 and 12	[redacted]	[redacted] (2018) Report No: -

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
		Confidential Annex 3.6		[redacted]	

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted] It can therefore be concluded that none of the products in the Meta-SPC 6 and Meta-SPC 12 should be classified as organic peroxides.	
	QATM 317	Refer to composition in Confidential Annex 3.6	Meta-SPC 9 (covering Meta-SPC 7)	[redacted]	[redacted] (2019) Report No: -

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted] It can therefore be concluded that none of the products in the Meta-SPC 7 and Meta-SPC 9 should be classified as organic peroxides.	
Corrosive to metals	Compatible with UN Test C.1, Section 2.16 of Regulation (EC) No 1272/2008 of 16 December 2008	Refer to composition in Confidential Annex 3.6	Meta-SPC 1 (a), Klercide Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	The test item has been determined not to be corrosive to metal. The tested metal plates showed the following mass loss over a period of 7 days at 55 ± 1 °C. In the case of uniform corrosion, a minimum mass loss of 13.5 % is equivalent to the CLP criterion of 6.25 mm/year and the test result is considered positive. In the case of localized corrosion, the test result is considered positive if the deepest intrusion exceeds 0.12 mm.	[redacted] (2017) Report No: ML22NC

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				Aluminium (Mass loss %) Headspace: 0.10 % Partially Immersed: 2.5 x 10^{-2} % Fully Immersed: 3.3 x 10^{-2} % Control: 1.2 x 10^{-2}% Observations: Localized corrosion observed. Pitting was no greater than 0.01 mm in depth **Steel (Mass loss %)** Headspace: 2.6 x 10^{-3} % Partially Immersed: -2.0 x 10^{-3} % Fully Immersed: -2.0 x 10^{-3} % Observations: Small amount of localized corrosion with no pitting greater than 0.01 mm in depth. No corrosion observed.	
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 1 (a), Klerwipe Sporicidal Low Residue Peroxide	Read across [redacted] **eCA remark:** [redacted]	-
	Compatible with UN Test C.1, Section 2.16 of Regulation	Refer to composition in Confidential Annex 3.6	Meta-SPC 2 (a), DrySan Oxy	The test item has been determined not to be corrosive to metal The tested metal plates showed the following mass loss over a period of 7 days at 55 ± 1 °C. In the case of uniform	[redacted] (2017) Report No: FV63WT

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
	(EC) No 1272/2008 of 16 December 2008			corrosion, a minimum mass loss of 13.5 % is equivalent to the CLP criterion of 6.25 mm/year and the test result is considered positive. In the case of localized corrosion, the test result is considered positive if the deepest intrusion exceeds 0.12 mm. **Aluminium (Mass loss %)** Headspace: 4.40 x 10^{-2} % Partially Immersed: 0.864% Fully Immersed: 5.17% Control: -3.46 x 10^{-3} % Observations: Localized corrosion observed on the surface of the metal plate. **Steel (Mass loss %)** Headspace: 1.81 % Partially Immersed: 1.69 % Fully Immersed: 2.80 % Control: -3.42 x 10^{-3} % Observations: Localized corrosion and pitting observed on the surface of the metal plate, but no pitting greater than 0.01 mm in depth	
	Compatible with UN Test C.1, Section 2.16 of Regulation	Refer to composition in Confidential Annex 3.6	Meta-SPC 3 (a), Oxypak D; Oxypak S; Oxypak S10	The test item has been determined not to be corrosive to metal The tested metal plates showed the following mass loss over a period of 7 days	[redacted] (2017) Report No: NN52YW

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
	(EC) No 1272/2008 of 16 December 2008			at 55 ± 1 °C. In the case of uniform corrosion, a minimum mass loss of 13.5 % is equivalent to the CLP criterion of 6.25 mm/year and the test result is considered positive. In the case of localized corrosion, the test result is considered positive if the deepest intrusion exceeds 0.12 mm. **Aluminium (Mass loss %)** Headspace: -3.4 x 10^{-3} % Partially Immersed: -5.1 x 10^{-3} % Fully Immersed: - 1.7 x 10^{-3} % Observations: No corrosion observed **Steel (Mass loss %)** Headspace: -6.8 x 10^{-4} % Partially Immersed: -1.4 x 10^{-3} % Fully Immersed: - 0.00% Observations: No corrosion observed.	
	Compatible with UN Test C.1, Section 2.16 of Regulation (EC) No 1272/2008 of 16 December 2008	Refer to composition in Confidential Annex 3.6	Meta-SPC 4 (b), OxyFoam Plus; MEPA Foampro; Predip PLUS	Read across [redacted] **eCA remark:** [redacted]	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				The test item is therefore classified as corrosive to metals, Category 1 (Met. Corr. 1), H290: May be corrosive to metals.	
	Compatible with UN Test C.1, Section 2.16 of Regulation (EC) No 1272/2008 of 16 December 2008	Refer to composition in Confidential Annex 3.6	Meta-SPC 5 (b), Incidin OxyFoam	Read across [redacted] **eCA remark:** [redacted]	-
	Compatible with UN Test C.1, Section 2.16 of Regulation (EC) No 1272/2008 of 16 December 2008	Refer to composition in Confidential Annex 3.6	Meta-SPC 5 (c), Incidin OxyFoam S; Klercide Sporicidal Enhanced Peroxide; KitchenPro Oxy Foam S	The test item has been determined not to be corrosive to metal. The tested metal plates showed the following mass loss over a period of 7 days at 55 ± 1 °C. In the case of uniform corrosion, a minimum mass loss of 13.5 % is equivalent to the CLP criterion of 6.25 mm/year and the test result is considered positive. In the case of localized corrosion, the test result is considered positive if the deepest intrusion exceeds 0.12 mm. **Aluminium (Mass loss %)** Headspace: 1.37 x 10^{-2} % Partially Immersed: 5.30 x 10^{-2} % Fully Immersed: 0.125%	[redacted] (2016) Report No: FH65YT

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				Observations: No corrosion observed **Steel (Mass loss %)** Headspace: 1.71% Partially Immersed: 2.95% Fully Immersed: 6.42% Control: 2.94 x 10^{-2} % Observations: Localized corrosion (headspace and Partially Immersed), Uniform corrosion (Fully Immersed) observed on the metal plate, with no pitting greater than 0.01 mm in depth.	
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 6 (a), OxyDes Rapid	The test item has been determined not to be corrosive to metal The tested metal plates showed the following mass loss over a period of 7 days at 55 ± 1 °C. In the case of uniform corrosion, a minimum mass loss of 13.5 % is equivalent to the CLP criterion of 6.25 mm/year and the test result is considered positive. In the case of localized corrosion, the test result is considered positive if the deepest intrusion exceeds 0.12 mm. **Aluminium (Mass loss %)** Headspace: 3.78 x 10^{-2} % Partially Immersed: 0.868% Fully Immersed: 1.46%	[redacted] (2017) Report No: GN81SM

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				Control: 3.00 x 10^{-2} % Observations: Localized corrosion observed **Steel (Mass loss %)** Headspace: 1.79% Partially Immersed: 0.653% Fully Immersed: 0.914% Control: 2.59 x 10^{-2} % Observations: Headspace: Localized corrosion observed on the surface of the metal plate with no significant pitting. Partially Immersed: No corrosion observed on the immersed part of the metal plate and uniform corrosion observed on the upper region of the metal plate. Fully Immersed: No corrosion observed.	

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 7 (a), UltraSan Floor; Incidin OxyConcentrate	Read-across [redacted] **eCA remark:** [redacted]	-
	UN Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria, Rev. 6 (2015) and UN Model Regulations, Rev. 19 (2015)	Refer to composition in Confidential Annex 3.6	Meta-SPC 7 (b), CidalSan Large Area; Incidin OxyConcentrate FF; KitchenPro Oxy Des Super Concentrate	The test item has been determined not to be corrosive to metal. The tested metal plates showed the following mass loss over a period of 7 days at 55 ± 1 °C. In the case of uniform corrosion, a minimum mass loss of 13.5 % is equivalent to the CLP criterion of 6.25 mm/year and the test result is considered positive. In the case of localized corrosion, the test result is considered positive if the deepest intrusion exceeds 0.12 mm. For the determination of the uniform corrosion the weight losses observed over seven days were:	[redacted] (2017) Report No: CSL-16-2353.04

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				Steel (Mass loss %) Fully Immersed: 0.15 % Half immersed: 0.12 % Gas phase: 0.04 % Aluminium (Mass loss %) Fully Immersed: 6.69 % Half immersed: 5.25 % Gas phase: 0.24 % The intrusion depths found microscopically after 7 days are smaller than 120 µm. The test is considered negative with respect to localised corrosion using steel as well as aluminium specimen. The product has no corrosive properties to metals.	
	Compatible with UN Test C.1, Section 2.16 of Regulation (EC) No 1272/2008 of 16 December 2008	Refer to composition in Confidential Annex 3.6	Meta-SPC 8 (a), DrySan Oxy Wipes; Incidin OxyWipe	Read across [redacted] **eCA remark:** [redacted]	-
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	Read-across [redacted] **eCA remark:** [redacted]	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted] The test item is therefore classified as corrosive to metals, Category 1 (Met. Corr. 1), H290: May be corrosive to metals.	
	UN Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria, Rev. 6 (2015) and UN Model Regulations, Rev. 19 (2015)	Refer to composition in Confidential Annex 3.6	Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	The product has corrosive properties to metals. The tested metal plates showed the following mass loss over a period of 7 days at 55 ± 1 °C. In the case of uniform corrosion, a minimum mass loss of 13.5 % is equivalent to the CLP criterion of 6.25 mm/year and the test result is considered positive. In the case of localized corrosion, the test result is considered positive if the deepest intrusion exceeds 0.12 mm. For the determination of the uniform corrosion the weight losses observed over seven days were: Steel (Mass loss %) Fully Immersed: 100.00% (no specimen could be found after 7 days) Half immersed: 44.61% Gas phase: 1.13%	[redacted] (2017) Report No: CSL-16-2559.04

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				Aluminium (Mass loss %) Fully Immersed: 78.99% Half immersed: 41.72% Gas phase: 0.40% Based on the highest observed weight loss of 100.00 wt%, the test is considered positive with respect to uniform corrosion of the steel specimen. Based on the highest observed weight loss of 78.99 wt%, the test is considered positive with respect to uniform corrosion of the aluminium specimen. For the determination of the localised corrosion the intrusion depths found microscopically on the steel specimen after 7 days are greater than 120 µm. The test item shows a positive corrosion result (uniform) in the test using the steel as well as the aluminium specimen. The test item shows a positive corrosion result (localised) in the test using the steel specimen. The product has corrosive properties to metals. The test item is therefore classified as corrosive to metals, Category 1 (Met. Corr. 1), H290: May be corrosive to metals.	

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
	Compatible with UN Test C.1, Section 2.16 of Regulation (EC) No 1272/2008 of 16 December 2008	Refer to composition in Confidential Annex 3.6	Meta-SPC 10 (a), Manosan Oxy	The test item has been determined to be corrosive to metal. The tested metal plates showed the following mass loss over a period of 7 days at 55 ± 1 °C. In the case of uniform corrosion, a minimum mass loss of 13.5 % is equivalent to the CLP criterion of 6.25 mm/year and the test result is considered positive. In the case of localized corrosion, the test result is considered positive if the deepest intrusion exceeds 0.12 mm. **Aluminium (Mass loss %)** Headspace: 0.314% Partially Immersed: 20.3% Fully Immersed: 80.4% Control: 3.40 x 10^{-2} % Observations: Uniform corrosion observed and no pitting greater than 0.01 mm in depth at headspace. Localized corrosion observed and some areas of the bottom half of the metal plate has corroded away (Partially and Fully Immersed). **Steel (Mass loss %)** Headspace: 2.85% Partially Immersed: 12.0% Fully Immersed: 21.4% Control: 2.79 x 10^{-2} %	[redacted] (2017) Report No: CF52WG

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				Observations: Localized corrosion observed on the surface of the metal plate The pickling of the plates only removes surface corrosion. The test item is therefore classified as corrosive to metals, Category 1 (Met. Corr. 1), H290: May be corrosive to metals.	
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	Read across [redacted] **eCA remark:** [redacted]	-
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 11 (d), Incidin OxyWipe S; KitchenPro Oxy Wipes S	Read across [redacted] **eCA remark:** [redacted]	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted]	
	-	Refer to composition in Confidential Annex 3.6	Meta-SPC 12 (a), OxyDes Maxi Wipes	Read-across [redacted] **eCA remark:** [redacted]	-
Auto-ignition temperatures of products (liquids and gases)		Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	[redacted]	-

Property	Guideline and Method	Purity of the test substance (% (w/w)	Tested Product (Meta Identifier, Trade name)	Results	Reference
				[redacted]	
Relative self-ignition temperature for solids	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable, there are no solid formulations in this biocidal product family.	-
Dust explosion hazard	-	Refer to composition in Confidential Annex 3.6	All products in the Hydrogen Peroxide Biocidal Product Family	Not applicable, there are no powder formulations in this biocidal product family.	-

Conclusion on the physical hazards and respective characteristics of the product
Based on the data presented, Meta-SPCs 1, 2, 3, 5, 7, 8 and 11 of Hydrogen peroxide family 1 are not classified with regards to physical and chemical hazards. Based on the data presented in metal corrosivity testing, Meta 4, 9 and Meta 10 is classified as corrosive to metals, Category 1 (Met. Corr. 1), H290: May be corrosive to metals. Based on the data presented in flammable liquids testing, the flash point for Meta 6 and 12 has been determined to be 35.5°C. Therefore, Meta-SPC 6 and 12 are classified as flammable **Flam.Liq.3 (H226)**.

2.2.4 Methods for detection and identification

2.2.4.1. Analytical methods for active substance

Analytical titration methods are available for the quantification of the active substance in biocidal product family – Hydrogen Peroxide Family 1.
Two type of titration methods are used for active substance content determination - Permanganometric titration and Iodometric titration.
One analysis of hydrogen peroxide is a permanganometric method based on the redox reaction as follows:

$$5H_2O_2 + 2KMnO_4 + 3\,H_2SO_4 \rightarrow 5o_2 + 2MnSO_4 + K_2SO_4 + 8H_2O$$

Sample preparation for Meta-SPC 1 (a) Klercide Sporicidal Low Residue Peroxide: Aliquots of test item were weighed into individual 100mL volumetric flasks and diluted to volume with purified water and shaken to mix. An aliquot (10mL) of sample solution was placed into beaker,

20mL of 98g/L sulfuric acid was added, and the solution was titrated immediately with potassium permanganate (0.02M) using auto-titrator.

Other analysis of hydrogen peroxide is an iodometric method based on the oxidation of iodide to iodine by the peroxide as follows:

$$H_2O_2 + 2\,KI + 3\,H_2SO_4 \rightarrow\ I_2 + 2H_2O +\ K_2SO_4$$

The iodine generated by this redox reaction is then determined with sodium thiosulfate according to:

$$I_2 + 2\,Na_2S_2O_3 \rightarrow\ 2\,NaI +\ Na_2S_4O_6$$

The endpoint is detected with starch indicator and is signalled by disappearance of the dark blue colour characteristic of starch $-I_2$ complex.

Sample preparation for Meta-SPC 3 (a) Oxypak D; Meta-SPC 5 (c) Incidin OxyFoam S; Meta-SPC 11 (d) Incidin OxyWipe S: Aliquots of test item were weighed into individual 100mL volumetric flasks and diluted to volume with purified water and shaken to mix. An aliquot (50mL) of sample solution was placed into a 150mL beaker, 10mL of 12N sulfuric acid was added, then 10mL of 2.5.N potassium iodide solution and 3 drops of 1N ammonium molybdate solution, the solution was titrated immediately with sodium thiosulfate (0.1 N) using auto-titrator.

Sample preparation for Meta-SPC 10 (a) Manosan Oxy; Meta-SPC 6 (a) OxyDes Rapid: Approximately 1g of the sample Manosan Oxy are weighed with analytical precision into a 300mL Erlenmeyer flask. 50mL sulfuric acid, 100mL deionized water, approximately 1 g potassium iodide and a small amount of ammonium molybdate are added. The liberated iodine is titrated with 0.1 mol/L sodium thiosulfate, using starch as indicator, until colour disappears.

Sample preparation for Meta-SPC 2 (a) DrySan Oxy: 1-2g of the sample DrySan Oxy are weighed with analytical precision into a 300mL Erlenmeyer flask. 50mL sulfuric acid, 100mL deionized water, approximately 1 g potassium iodide and a small amount of ammonium molybdate are added. The liberated iodine is titrated with 0.1 mol/L sodium thiosulfate, using starch as indicator, until colour disappears.

Sample preparation for Meta-SPC 7 (b) CidalSan Large Area; Meta-SPC 9 (b) Maxx Oxy Des 2: An appropriate amount of the test item was weighed out into a 150mL beaker and diluted with 10mL of sulfuric acid ($c(H_2SO_4)$ =6 mol/L). Approximately 10mL of potassium iodide solution (c(KI)=2.5 mol/L), three drops of ammonium molybdate solution ($c((NH_4)_2MoO_4)$ =0.1 mol/L) and 40 mL demineralized water were added.

Analytical methods for the analysis of the product as such including the active substance, impurities and residues									
Analyte (type of analyte e.g. active substance) *	**Analytical method**	**Fortification range / Number of measurements**	**Linearity**	**Specificity**	**Recovery rate (%)**			**Limit of quantification (LOQ) or other limits**	**Reference**
					Range	Mean	RSD		

Non-analyte interference testing for Meta-SPC 10 Manosan Oxy, Meta-SPC 2 (a) DrySan Oxy, Meta-SPC 6 (a) OxyDes Rapid	Titration with sodium thiosulfate (0.1N) (Analytical method [redacted])	For each product a sample without hydrogen peroxide have been prepared. After that the sample has been titrated for potential hydrogen peroxide according to [redacted] method. The analytical results given clearly show that blank samples of Manosan Oxy, DrySan Oxy and OxyDes Rapid do not interfere with the analyte specified in the analytical method. Therefore, it can be concluded that auxiliary chemicals as given by the formulations do not generate hydrogen peroxide themselves and do not influence the determinations of hydrogen peroxide.	[redacted] (2019) Report No: -
Non-analyte interference testing for Meta-SPC 5 (c) Incidin OxyFoam S, Meta-SPC 5 (b) Incidin OxyFoam S and Meta-SOC 7 CidalSan Large Area	Titration with sodium thiosulfate (0.1N) (Analytical method [redacted])	For each product a sample without hydrogen peroxide have been prepared. After that the sample has been titrated for potential hydrogen peroxide according to [redacted] method. The analytical results given clearly show that blank samples of Incidin OxyFoam S, Incidin OxyFoam S and CidalSan Large Area do not interfere with the analyte specified in the analytical method. Therefore, it can be concluded that auxiliary chemicals as given by the formulations do not generate hydrogen peroxide themselves and do not influence the determinations of hydrogen peroxide.	[redacted] (2019) Report No: -
Non-analyte interference testing for Meta-SPC 9 Maxx Oxy Des 2	Titration with sodium thiosulfate (0.1N) (Analytical method [redacted])	For this product a sample without hydrogen peroxide has been prepared. After that the sample has been titrated for potential hydrogen peroxide according to [redacted] method. The analytical results given clearly show that blank sample of Maxx Oxy Des 2 do not interfere with the analyte specified in the analytical method. Therefore, it can be concluded that auxiliary chemicals as given by the formulations do not generate hydrogen peroxide themselves and do not influence the determinations of hydrogen peroxide.	[redacted] (2019) Report No: -

Meta-SPC 1 (a), Klercide Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	Titration with potassium permanganate (0.02 M)	Conc. Determined = 5.97% (n=5)	Concentration range= 0.18-0.71 g (n=8) R^2=0.9997 Slope=58.8 Intercept=0.116	Not reported	94.4-102	98.9	3.41 Precision: 0.602 (n=4 with replicate) RSDr: 2.05	Not reported	[redacted] (2017) Report No: XX35WG
Meta-SPC 1 (a), Klerwipe Sporicidal Low Residue Peroxide	[redacted]								
Meta-SPC 2 (a), DrySan Oxy	Titration with sodium thiosulfate (0.1 M)	Conc. Determined = 1.0	n/a	Not reported	98.9 - 100.9	99.65	0.01 (n=6) RSDr: 1.3	Not reported	[redacted] (2016) Report No: 32X16001.E1
Meta-SPC 3 (a), Oxypak D; Oxypak S; Oxypak S10	Titration with sodium thiosulfate (0.1N)	Conc. Determined = 36.1 (n=5)	Concentration range= $8.8*10^{-2}$ - 0.107 g (n=9) R^2=1.000 Slope=593 Intercept=0.211	Not reported	99.9-101	100	0.91 Precision: 0.252 (n=3 with replicate)	Not reported	[redacted] (2017) Report No: JV57SL

							RSDr: 1.56		
Meta-SPC 4 (b), OxyFoam Plus; MEPA Foampro D; Predip PLUS	Read-across [redacted]								
Meta-SPC 5 (b), Incidin OxyFoam	Titration with sodium thiosulfate (0.1 M)	Conc. Determined = 1.41%	Concentration range= $1.77*10^{-2}$ - 0.212 g (n=9) R^2=1.000 Slope=297 Intercept=0.211	Not reported	n/a	101	0.59 Precision: 0.307 (n=3 with replicate) RSDr: 2.54	Not reported	[redacted] (2017) Report No: CJ82VW
Meta-SPC 5 (c), Incidin OxyFoam S; Klercide Sporicidal Enhanced Peroxide; KitchenPro Oxy Foam S	Titration with sodium thiosulfate (0.1N)	Conc. Determined = 1.36% (n=5)	Concentration range= $1.77*10^{-2}$ - 0.212 g (n=9) R^2=1.000 Slope=297 Intercept=0.211	Not reported	100-101	101	0.459 Precision: 1.2 (n=3 with replicate) RSDr: 2.56	Not reported	[redacted] (2017) Report No: BF51VJ

Meta-SPC 6 (a), OxyDes Rapid	Iodometric titration method	Conc. Determined = 2.0% (n=6)	n/a	Not reported	98.2 - 100.4	99.45	0.01 (n=6)	Not reported	[redacted] (2016) Report No: 32X16002.E1
Meta-SPC 7 (a), UltraSan Floor; Incidin OxyConcentrate	[redacted]								
Meta-SPC 7 (b), CidalSan Large Area; Incidin OxyConcentrate FF; KitchenPro Oxy Des Super Concentrate	Iodometric titration method	Conc. Determined = 4.77% (n=5)	R^2=0.99994 (n=6)	Not reported	n/a	102	0.04 (n=5) RSDr: 2.12	10 mg	[redacted] (2017) Report No:161107ED / CMV17436
Meta-SPC 8 (a), DrySan Oxy Wipe; Incidin OxyWipe	Titration with sodium thiosulfate (0.1N)	Conc. Determined = 0.999 % (n=5)	Concentration range= 215-1.80*10^3 mg/L (n=9) R^2=0.9997 Slope=524 Intercept=0.268	Not reported	98-99.6	99.0	1.11 Precision: 0.511 (n=3 with replicate)		[redacted] (2016) Report No: NR21SH

							RSDr: 2.68		
Meta-SPC 9 (a), KitchenPro Oxy Des Concentrate; Incidin OxyPro	[redacted]								
Meta-SPC 9 (b), Maxx Oxy Des 2; Oasis Pro Oxy Des	Iodometric titration method	Conc. Determined = 6.84% (n=5)	R^2=0.996 (n=7)	Not reported	n/a	101	0.12 (n=5) RSDr: 2.01	10 mg	[redacted] (2017) Report No: 161129EB/ CMV17481
Meta-SPC 10 (a), Manosan Oxy	Titration with sodium thiosulfate (0.1N)	Conc. Determined = 1.4 (n=6)	n/a	Not reported	98.5 - 101. 6	101. 5	0.01 (n=6)	Not reported	[redacted] (2016) Report No: 32X16003.E1
Meta-SPC 11 (c), Klerwipe Sporicidal Enhanced Peroxide	[redacted]								
Meta-SPC 11 (d), Incidin OxyWipe S;	Titration with sodium thiosulfate (0.1N)	Conc. Determined = 1.42% (n=5)	Concentration range= $1.77*10^{-2}$ - 0.212 g (n=9)	Not reported	101-102	102	0.618 Precision: 0.545	Not reported	[redacted] (2017) Report No: FG98JD

KitchenPro Oxy Wipes S			R^2=1.000 Slope=297 Intercept=0.211				(n=3 with replicate) RSDr: 2.54		
Meta-SPC 12 (a), OxyDes MaxiWipes	Titration with sodium thiosulfate (0.1N)	Conc. Determined = 1.99% (n=6)	Concentration range= 215-1.8*10^3 mg/L (n=9) R^2=0.9997 Slope=524 Intercept=0.268	Not reported	99-10	99.3	2.5 Precision: 0.17 (n=3 with replicate) RSDr: 2.42		[redacted] (2016) Report No: DL73VV

2.2.4.2. Analytical methods for substance of concern

Liquid chromatography method is available for the quantification of the n-propanol in biocidal product family – Hydrogen Peroxide Family 1.

[redacted]

[redacted]

Analytical methods for the analysis of the product as such including the substances of Concern									
Analyte (type of analyte e.g. active	**Analytical method**	**Fortification range / Number of**	**Linearity**	**Specificity**	**Recovery rate (%)**			**Limit of quantification (LOQ) or other**	**Reference**
					Range	Mean	RSD		

substance) *		measurements						limits	
n-propanol in OxyDes Rapid (Meta-SPC 6)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted] (2017) Study number: 17-05162-3

Linearity, precision, accuracy and specificity were evaluated in the validation studies and compared to the criteria specified in SANCO /3030/99 rev.4. The data provided in study shows that [redacted] allows determination n-propanol [redacted]. Validation data can be considered as acceptable.

Analytical methods for soil									
Analyte (type of analyte e.g. active substance)	**Analytical method**	**Fortification range / Number of measurements**	**Linearity**	**Specificity**	**Recovery rate (%)**			**Limit of quantification (LOQ) or other limits**	**Reference**
					Range	Mean	RSD		
H2O2 in soil	waiver	This endpoint is not applicable, justification is provided in the Competent Authority Report (CAR), please refer to CAR via LoA which is attached under point 13: Not applicable, because hydrogen peroxide is rapidly decomposed in soil and does not adsorb to soil matrix. Trace amounts of hydrogen peroxide in soil water may be analysed by the method for water.							-

Analytical methods for air									
Analyte (type of analyte e.g. active substance)	**Analytical method**	**Fortification range / Number of measurements**	**Linearity**	**Specificity**	**Recovery rate (%)**			**Limit of quantification (LOQ) or other limits**	**Reference**
					Range	Mean	RSD		

H2O2 in the air	Determination of hydrogen peroxide in the air at the workplace by liquid chromatography after enrichment in water with impinge and subsequent derivatization.	Dipping, foaming, wiping and mopping use scenarios: Not relevant, however analytical methods for determination of hydrogen peroxide in air are presented in CAR, March 2015, Doc. IIIA. Spraying use scenarios: May be relevant for users exposure in spray application. Analytical methods for determination of hydrogen peroxide in air are presented in CAR, March 2015, Doc. IIIA.	-

Analytical methods for water									
Analyte (type of analyte e.g. active substance)	**Analytical method**	**Fortification range / Number of measurements**	**Linearity**	**Specificity**	**Recovery rate (%)**			**Limit of quantification (LOQ) or other limits**	**Reference**
					Range	Mean	RSD		
H2O2 in water	Waiver	Within this dossier, method validations for a titration method were performed for H2O2 aqueous solutions, ranging from 1 to 35% of H2O2. In conclusion, it can be seen that the titration method is suitable for detection of H2O2 in small concentrations in aqueous solutions. Analytical methods for determination of hydrogen peroxide in water are presented in CAR, March 2015, Doc. A4.2(c) Annex Pion IIA IV.4.2. (December 2016)							-

Analytical methods for animal and human body fluids and tissues									
Analyte (type of analyte e.g. active	**Analytical method**	**Fortification range / Number of measurements**	**Linearity**	**Specificity**	**Recovery rate (%)**			**Limit of quantification (LOQ) or other**	**Reference**
					Range	Mean	RSD		

substance)								**limits**	
Analytical Method for analysis of H2O2 in animal and human body fluids and tissues	Waiver	This endpoint is not applicable, justification is provided in the Competent Authority Report (CAR), please refer to confidential CAR via LoA: Not required as the substance is not acutely toxic (T) or very toxic (T+).							-

Analytical methods for monitoring of active substances and residues in food and feeding stuff									
Analyte (type of analyte e.g. active substance)	**Analytical method**	**Fortification range / Number of measurements**	**Linearity**	**Specificity**	**Recovery rate (%)**			**Limit of quantification (LOQ) or other limits**	**Reference**
					Range	Mean	RSD		
Analytical methods for monitoring H2O2 in/on food of plant and animal origin or feeding stuffs and other products where relevant (not necessary if neither the active substance nor the material trated with it come into contact with food-producing animals, food of	Waiver	This endpoint is not applicable, justification is provided in the Competent Authority Report (CAR), please refer to confidential CAR via LoA: Not required as not expected in food/feed of plant and animal origin.							-

plant and animal origin of feeding stuffs)			

2.2.5 Efficacy against target organisms

2.2.5.1 Function and field of use

Disinfectants with broad spectrum of activity used on non-porous surfaces.
Effective against bacteria, yeasts, fungi, mycobacteria, *Clostridium* spores, bacterial spores and viruses.

[redacted]

the following descriptions with the examples should be used for health care uses.

Routine disinfection

Routine disinfection (for surface disinfectants): Disinfection of surfaces, which might be contaminated with pathogens during medical or nursing processes on a regular basis to reduce the risk of transmission of such organisms via surfaces. Frequency may be defined by the user based on a time schedule (e.g. daily) or on procedural principles (e.g. after each patient in a doctor's office).

Non routine disinfection

Non routine disinfection: Disinfection in specific risk situations (unless differently regulated by national public health authorities).
Examples are:

- known contamination with e.g. body fluids or excretions
- after treatment of patients known to be infected or colonized with specific pathogens
- during outbreaks of specific pathogens (covered by efficacy tests) in a specific setting.

2.2.5.2 Organisms to be controlled and products, organisms or objects to be protected

Organisms to be controlled: bacteria, yeasts, fungi, mycobacteria, *Clostridium* spores, bacterial spores and viruses.

Products	Organism to be controlled
META-SPC 1 Klercide Sporicidal Low Residue Peroxide; Klerwipe Sporicidal Low Residue Peroxide; ANIOS H2O2 6% IP STERILE	Bacteria; Yeast; Fungi; Bacterial spores; Viruses
META-SPC 2 DrySan Oxy	Bacteria; Yeast; Fungi; Mycobacteria

META-SPC 3 Oxypak D; Oxypak S; Oxypak S10	Bacteria; Yeast; Fungi; Bacterial spores
META-SPC 4 OxyFoam Plus; MEPA Foampro D; Predip PLUS	Bacteria; Yeast
META-SPC 5 Incidin OxyFoam; Incidin OxyFoam S; Klercide Sporicidal Enhanced Peroxide; KitchenPro Oxy Foam S	Bacteria; Yeast; Fungi; Mycobacteria Viruses; *Clostridium* spores, Bacterial spores
META-SPC 6 OxyDes Rapid	Bacteria; Yeast
META-SPC 7 UltraSan Floor; Incidin OxyConcentrate; Incidin OxyConcentrate FF; KitchenPro Oxy Des Super Concentrate; CidalSan Large Area	Bacteria; Yeast
META-SPC 8 DrySan Oxy Wipes; Incidin OxyWipe	Bacteria; Mycobacteria; Yeast; Fungi;
META-SPC 9 KitchenPro Oxy Des Concentrate, Incidin OxyPro, Oasis Pro Oxy Des, Maxx Oxy Des 2, Oxy Des Plus	Bacteria; Yeast; fungi, viruses
META-SPC 10 Manosan Oxy	Bacteria; Yeasts
META-SPC 11 Klerwipe Sporicidal Enhanced Peroxide; Incidin OxyWipe S; KitchenPro Oxy Wipes S	Bacteria; Yeasts; Fungi; Mycobacteria; *Clostridium* spores, Bacterial spores; Viruses
META-SPC 12 OxyDes Maxi Wipes	Bacteria; Yeasts

Products, organisms or objects to be protected: human health protection, non-porous surfaces, perishable goods

2.2.5.3 Effects on target organisms, including unacceptable suffering

Irreversible reduction of infectivity and the ability of target organisms to multiply covering bacteria (incl. Mycobacteria and bacterial spores), fungi and viruses, by reduction in numbers of micro-organisms capable of causing infection of humans and animals or spoilage of perishable goods.

2.2.5.4 Mode of action, including time delay

The disinfection mechanism of hydrogen peroxide is based on the release of free oxygen radicals (H2O2 → H2O + O2). Free oxygen radicals oxidize organic material and only water and oxidation products remain. Free radicals have both oxidising and disinfecting abilities thereby leading to their disinfection potential. Hydrogen peroxide e.g. oxidizes proteins through oxidation. The efficiency of hydrogen peroxide depends on several factors, such as pH, catalysers, temperature, peroxide concentration and reaction time.

2.2.5.5 Efficacy data

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
META 1								
Meta-SPC 1	PT2&PT4 biocidal product Bactericidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klerwipe Sporicidal Low Residue Peroxide (6.0 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442*)* *Escherichia coli* (ATCC 10536) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541)	EN 1276:2009	[redacted]	The undiluted test [redacted] [redacted] complies with the EU requirements.	[redacted] (2015) D124-1/2015
Meta-SPC 1	PT2&PT4 biocidal product Yeasticidal, Fungicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Low residue peroxide (6.0 % H_2O_2)	*Candida albicans (*ATCC 10231) *Aspergillus niger* (ATCC 16404)	EN 1650:2008	[redacted]	The product [redacted]	[redacted] (2010), Test report No: 60/2010

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]	[redacted] complies with the EU requirements.	
Meta-SPC 1	PT2&PT4 biocidal product Yeasticidal, Fungicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klerwipe Sporicidal Low Residue Peroxide (6.0 % H_2O_2)	*Candida albicans* (ATCC 10231) *Aspergillus niger* (ATCC 16404)	EN 1650:2008+ A1 (2013)	[redacted]	The product [redacted] [redacted] [redacted] complies with the EU requirements	[redacted] (2015) D124-2/2015
Meta-SPC 1	PT2&PT4 biocidal product Bactericidal, Yeasticidal and fungicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Low residue peroxide (6.0 % H_2O_2)	*Escherichia coli* (ATCC 10536) *Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Candida albicans* (ATCC 10231) *Aspergillus brasiliensis* (*niger*) (ATCC 16404)	EN 13697: 2015	[redacted]	The [redacted] test item [redacted] complies with EU requirements. [redacted] [redacted]	[redacted] (2016) Test report no: D72-3/2016

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 1	PT2&PT4 biocidal product Bactericidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	(ANIOS H2O2 6% IP STERILE) (6.0 % H_2O_2)	*Staphylococcus aureus (*CIP 483) *Enterococcus hirae (*CIP 5855) *Escherichia coli (*CIP 54127*) Pseudomonas aeruginosa (*CIP 103467)	EN 13697 (2015)		The test item ( ) complies with EU requirements.	(2016) Test report: N° A 16 105 13697
Meta-SPC 1	PT2&PT4 biocidal product Yeasticidal, Fungicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Low residue peroxide (6.0 % H_2O_2)	*Candida albicans* (ATCC 10231) *Aspergillus niger* (ATCC 16404)	EN 13697: 2001		The test item complies with the EU requirements	(2010), Test report No: 62/2010
Meta-SPC 1	PT2&PT4 biocidal product Yeasticidal, Fungicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	(ANIOS H2O2 6% IP STERILE) (6.0 % H_2O_2)	*Candida albicans (*DSM 1386) *Aspergillus brasiliensis* (ATCC 16404)	EN 13697: 2015		The test item ( ) complies with EU requirements.	(2016) Test report: A 16 87 13697

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]		
Meta-SPC 1	PT2&PT4 biocidal product Bactericidal and yeasticidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klerwipe Sporicidal Low Residue Peroxide (6.0 % H_2O_2)	*Staphylococcus aureus* (DSM 799) *Enterococcus hirae* (DSM 3320) *Pseudomonas aeruginosa* (DSM 939) *Candida albicans* (DSM 1386)	EN EN16615: 2015	[redacted]	The test item [redacted] [redacted] complies with EU requirements.	[redacted] (2017), Test Report No: 15-04677-1
Meta-SPC 1	PT2&PT4 biocidal product sporicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Low residue peroxide (6.0 % H_2O_2)	Spores of *B. subtilis* ATCC 6633 (DSMZ)	EN 13704:2005	[redacted]	The test item [redacted] complies with the EU requirements	[redacted] (2010), Test report No: 63/2010
Meta-SPC 1	PT2&PT4 biocidal product Sporicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	[redacted] (6.0 % H_2O_2)	[redacted]	NF EN 13704 (2002)	[redacted]	The test item [redacted] complies with the EU requirements.	[redacted] (2016) Report A 16 184 13704 Study No. 34670

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 1	PT2&PT4 biocidal product Sporicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	(6.0 % H_2O_2)		NF EN 13704 (2002)		The test item complies with the EU requirements.	(2016) Report A 16 183 13704 Study No. 34669
Meta-SPC 1	PT2&PT4 biocidal product Sporicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klerwipe Sporicidal Low Residue Peroxide (6.0 % H_2O_2)	Spores of *B. subtilis* (ATCC 6633)	EN 13704: 2002		The test item complies with the EU requirements.	(2015) D124-4/2015
Meta-SPC 1	PT2&PT4 biocidal product sporicidal and fungicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klerwipe Sporicidal Low residue peroxide (6.0 % H_2O_2)	Spores of *B. Subtilis* (DSM 347) *Aspergillus brasiliensis* (DSM 1988)			The product demonstrated sporicidal activity The product demonstrated fungicidal activity	(2018) Test report No: 15-14764-3-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]	[redacted]	
Meta-SPC 1	PT2&PT4 biocidal product sporicidal and fungicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klerwipe Sporicidal Low residue peroxide (6.0 % H_2O_2)	Spores of *B. Subtilis* (DSM 347) *Aspergillus brasiliensis* (DSM 1988)	[redacted]	[redacted]	The product [redacted] demonstrated acceptable sporicidal activity [redacted]. The product [redacted] demonstrated acceptable fungicidal activity [redacted].	[redacted] (2018) Test report No: 15-12507-1-1
Meta-SPC 1	PT2&PT4 biocidal product virucidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Low residue peroxide (6.0 % H_2O_2)	Human Adenovirus C, (HAdVC) Human Poliovirus (HPV-1)	EN 14476:2007	[redacted]	The [redacted] test item demonstrated acceptable virucidal activity [redacted]. The [redacted] test item demonstrated virucidal activity [redacted].	[redacted] (2008) 08.00441
Meta-SPC 1	PT2&PT4 biocidal product Virucidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Low residue peroxide (6.0 % H_2O_2)	Murine Norovirus S99, Strain Berlin/06/DE	EN 14476:2007	[redacted]	The [redacted] test item [redacted]	[redacted] (2018) 16-04225-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]	[redacted] complies with EU requirements.	
META 2								
	Read acros between Meta-SPC 2 [redacted]: DrySan Oxy and [redacted] are ready to use (RTU) disinfectants for hard surfaces in the food and feed area. [redacted]							
Meta-SPC 2 (a)	*PT2 and PT4 biocidal Product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	DrySan Oxy (1.0 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Escherichia coli* (ATCC 10536) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541)	EN13727: 2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) L15/0663.1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 2 (a)	*PT2 and PT4 biocidal Product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	DrySan Oxy (1.0 % H_2O_2)	*Escherichia coli* (ATCC 10536)	EN13727: 2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) L15/0663.4
Meta-SPC 2 (a)	*PT2 and PT4 biocidal Product Bactericidal yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	DrySan Oxy (1.0 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Escherichia coli* (ATCC 10536) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) [redacted] *Candida albicans* (ATCC 10231)	EN 13697:2015	[redacted]	The test item [redacted] complies with EU requirements	[redacted] (2016) Test report No: L15/0663.5
META 3								
Meta-SPC 3	*PT4 biocidal product Bactericidal*	*Hard surface disinfectant:*	[redacted] OxyPak D (35.0 % H_2O_2)	*Pseudomonas aeruginosa*	EN1276: 2009	[redacted]	The test item [redacted]	[redacted] (2018, 2017) [redacted];

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
		Disinfection of direct and indirect food contact surfaces		(ATCC 15442) (DSM 939) *Escherichia coli* (ATCC 10536*)* *(*DSM 682) *Staphylococcus aureus* (ATCC 6538) (DSM 799) *Enterococcus hirae* (ATCC 10541) (DSM 3320)		[redacted]	[redacted] complies with EU requirements.	[redacted] (2010) [redacted] (2008) Test reports No: 16-13198-18-2; 16-13198-19-1; 10-05281 (02e/08-OXK)
Meta-SPC 3	*PT4 biocidal product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	[redacted] OxyPak D (35.0 % H_2O_2)	*Enterococcus faecium* (ATCC 6057)	EN1276: 2009	[redacted]	The test item [redacted] complies with EU requirements	[redacted] (2019) L18/0910.1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]		
Meta-SPC 3	*PT4 biocidal product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	[redacted] OxyPak D (35.0 % H_2O_2)	*Enterococcus faecium* (ATCC 6057)	EN13697: 2015	[redacted]	The test item [redacted] complies with EU requirements	[redacted] (2019) L18/0910.2
Meta-SPC 3	*PT4 biocidal product fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	[redacted] OxyPak D (35.0 % H_2O_2)	*Aspergillus brasiliensis* (DSM 1988)	EN 1650: 2008+A1:2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2017) 16-13198-14-1
Meta-SPC 3	*PT4 biocidal product fungicidal*	*Hard surface disinfectant: Disinfection of direct and*	[redacted] OxyPak D (35.0 % H_2O_2)	*Aspergillus brasiliensis* (DSM 1988)	EN 1650: 2008+A1:2013	[redacted]	The test item [redacted]	[redacted] (2016) 16-13198-13

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
		indirect food contact surfaces					complies with EU requirements.	
Meta-SPC 3	*PT4 biocidal product Yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	OxyPak D (35.0 % H_2O_2)	*Candida albicans* (DSM 1386)	EN 1650: 2008+A1:2013		The test item complies with EU requirements.	(2016) 16-13198-17
Meta-SPC 3	*PT4 biocidal product Yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	OxyPak D (35.0 % H_2O_2)	*Candida albicans* (DSM 1386)	EN 1650: 2008+A1:2013		The test item	(2016) 16-13198-16

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
							complies with EU requirements.	
Meta-SPC 3	*PT4 biocidal product Yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	OxyPak D (35.0 % H_2O_2)	*Candida albicans* (DSM 1386)	EN 1650: 2008+A1:2013		The test item complies with EU requirements.	(2016) 16-13198-15
Meta-SPC 3	*PT4 biocidal product* Yeasticidal, Fungicidal	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	OxyPak S OxyPak D (35.0 % H_2O_2)	*Candida albicans* (ATCC 10231) *Aspergillus niger* (ATCC 16404)	EN 1650: 1998		The test item complies with EU requirements.	(2005) 02e/05-OXK (2010) 10-05281
Meta-SPC 3	*PT4 biocidal product Bactericidal*	*Hard surface disinfectant:*	OxyPak D (35.0 % H_2O_2)	*Pseudomonas aeruginosa* (DSM 939)	EN13697: 2015		The test item	(2017) 16-13198-12-2

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
		Disinfection of direct and indirect food contact surfaces		*Escherichia coli* (DSM 682) *Staphylococcus aureus* (DSM 799) *Enterococcus hirae* (DSM 3320)			[redacted] complies with EU requirements.	
Meta-SPC 3	*PT4 biocidal product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	[redacted] OxyPak D (35.0 % H_2O_2)	*Pseudomonas aeruginosa* (DSM 939) *Escherichia coli* (DSM 682) *Staphylococcus aureus* (DSM 799) *Enterococcus hirae* (DSM 3320)	EN13697: 2015		The test item [redacted] complies with EU requirements.	[redacted] (2018) 16-13198-11 Revision 1
Meta-SPC 3	*PT4 biocidal product* *Yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	[redacted] OxyPak D (35.0 % H_2O_2)	*C. albicans* (DSM 1386)	EN13697: 2015		The test item [redacted]	[redacted] (2017) 16-13198-8-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]	[redacted] complies with EU requirements.	
Meta-SPC 3	*PT4 biocidal product* *Yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	[redacted] OxyPak D (35.0 % H_2O_2)	*C. albicans* (DSM 1386)	EN13697: 2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) 16-13198-9-1
Meta-SPC 3	*PT4 biocidal product* *Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	[redacted] OxyPak D (35.0 % H_2O_2)	*Aspergillus brasiliensis* (DSM 1988)	EN13697: 2015	[redacted]	The test item [redacted]	[redacted] (2016) 16-13198-5

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
							[redacted] complies with EU requirements.	
Meta-SPC 3	*PT4 biocidal product* *Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	[redacted] OxyPak D (35.0 % H_2O_2)	*Aspergillus brasiliensis* (DSM 1988)	EN13697: 2015	[redacted]	The test item [redacted] [redacted] complies with EU requirements.	[redacted] (2016) 16-13198-6
Meta-SPC 3	*PT4 biocidal product* *Yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	[redacted] OxyPak D (35.0 % H_2O_2)	*C. albicans* (DSM 1386)	EN13697: 2015	[redacted]	The test item [redacted] [redacted] complies with EU requirements.	[redacted] (2016) 16-13198-7
Meta-SPC 3	*PT4 biocidal product* *Sporicidal*	*Hard surface disinfectant: Disinfection of direct and*	[redacted] OxyPak D (35.0 % H_2O_2)	*B. subtilis* (DSM 347)	EN13704:2002: 2015	[redacted]	The test item [redacted]	[redacted] (2016) 16-13198-2 16-13198-3

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
		indirect food contact surfaces				[redacted]	[redacted] complies with EU requirements.	
Meta-SPC 3	*PT4 biocidal product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	[redacted] OxyPak D (35.0 % H_2O_2)	[redacted]	EN13697: 2015	[redacted]	[redacted]	[redacted] (2016) 16-13198-10
META 4								
Meta-SPC 4	*PT3 biocidal product Bactericidal*	*Teat disinfection*	OxyFoam Plus (1.4 % H_2O_2)	*Staphylococcus aureus* (DSM 799) *Streptococcus uberis* (DSM 20S69) *Escherichia coli* (DSM 682)	EN 1656:2009	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) 16-13075-3

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]		
Meta-SPC 4	*PT3 biocidal product Yeasticidal*	*Teat disinfection*	OxyFoam Plus (1.4 % H_2O_2)	*Candida albicans* (DSM 1386)	EN 1657:2014	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) 16-13075-4
Meta-SPC 4	*PT3 biocidal product bactericidal*	*Teat disinfection*	OxyFoam Plus (1.4 % H_2O_2)	*E.coli K12* (DSM 11250)	EN 1500:2013 modified	[redacted]	[redacted]	[redacted] (2018) 16-19110-1
META 5								
	Read acros between Meta-SPC 5 [redacted]: **Meta 1.5c products [redacted]** with an active concentration of 1.5% H2O2. [redacted] are ready to use surface disinfectants for use within PT2 and PT4 application areas. [redacted]							

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
	[redacted]							
Meta-SPC 5 (b)	*PT2 and PT4 biocidal Product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam (1.5 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541)	EN13727:2014	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) 2015-02-25
Meta-SPC 5 (b)	*PT2 and PT4 biocidal Product Yeasticidal and Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam (1.5 % H_2O_2)	*Aspergillus brasiliensis* (ATCC 16404) *Candida albicans* (ATCC 10231)	EN 13624:2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) 2015-03-03

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]		
Meta-SPC 5 (b)	*PT2 and PT4 biocidal Product Mycobactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam (1.5 % H_2O_2)	*Mycobacterium terrae* (ATCC 15755) *Mycobacterium avium* (ATCC 15769)	EN14348:2015	[redacted]	The test item [redacted] [redacted] complies with EU requirements.	[redacted] (2015) 2015-03-17
Meta-SPC 5 (b)	*PT2 and PT4 biocidal Product Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam (1.5 % H_2O_2)	*Aspergillus brasiliensis* (ATCC 16404)	prEN16615 (2014)	[redacted]	[redacted] The test can be claimed as valid for fungicidal activity [redacted].	[redacted] (2015), 2015-03-18 (1st run) 2015-03-18 (1st run with extra time)
Meta-SPC 5 (b)	*PT2 and PT4 biocidal Product Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam (1.5 % H_2O_2)	*Aspergillus brasiliensis* (ATCC 16404)	prEN16615 (2014)	[redacted]	The test item applied [redacted] demonstrates acceptable fungicidal activity [redacted]	[redacted] (2015), 2015-03-25 (2nd run)

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]	[redacted]	
Meta-SPC 5 (b)	*PT2 and PT4 biocidal Product Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam (1.5 % H_2O_2)	*Aspergillus brasiliensis* (ATCC 16404)	prEN16615 (2014)	[redacted]	The test item applied [redacted] demonstrates acceptable fungicidal activity [redacted]	[redacted] (2018), 2018-07-03 (3rd run)
Meta-SPC 5 (b)	*PT2 and PT4 biocidal Product Mycobacteri cidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam (1.5 % H_2O_2)	[redacted]	prEN16615 (2014)	[redacted]	The test item [redacted] complies with EU requirements	[redacted] (2015) 2015-03-24 (1st run) 2015-03-24 (2nd run) (3rd run)

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 5 (b)	*PT2 and PT4 biocidal Product Bactericidal and yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam (1.5 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Candida albicans* (ATCC 10231*)*	prEN16615 (2014)	[redacted]	[redacted] : [redacted] the test can be claimed as valid for yeasticidal activity [redacted].	[redacted] (2015) 2nd run [redacted] 2015-03-16
Meta-SPC 5 (b)	*PT2 and PT4 biocidal Product Bactericidal and yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam (1.5 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Candida albicans* (ATCC 10231*)*	prEN16615 (2014)	[redacted]	[redacted] : The test can be claimed as valid for bactericidal activity [redacted]	[redacted] (2018) 3rd run [redacted] 2018-03-07

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
							[redacted]. [redacted]: [redacted] The test can be claimed as valid for yeasticidal activity [redacted].	
Meta-SPC 5 (b)	*PT2 and PT4 biocidal Product Bactericidal and yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam (1.5 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Candida albicans* (ATCC 10231)	prEN16615 (2014)	[redacted]	[redacted]: The test can be claimed as valid for bactericidal activity [redacted]. [redacted]	[redacted] (2015), 1st run [redacted] 2015-03-11

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
							[redacted]: [redacted] The test can be claimed as valid for yeasticidal activity [redacted].	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 5 (c)	*PT2 &PT4 biocidal Product bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae*	EN 13727: 2014		The test item complies with EU requirements.	(2015) 2015-02-25 1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
				(ATCC 10541)		[redacted]		
Meta-SPC 5 (c)	*PT2 &PT4 biocidal Product bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541)	EN 13727: 2014	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) A 14242-1
Meta-SPC 5 (c)	*PT2&PT4 biocidal Product yeasticidal Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	*Candida albicans* (ATCC 10231) *Aspergillus brasiliensis* (ATCC 16404)	EN 13624: 2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) A 14242-2
Meta-SPC 5 (c)	*PT2&PT4 biocidal Product yeasticidal Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	*Candida albicans* (ATCC 10231) *Aspergillus brasiliensis* (ATCC 16404)	EN 13624:2013	[redacted]	The test item [redacted]	[redacted] (2015) 2015-03-03

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]	[redacted] complies with EU requirements.	
Meta-SPC 5 (c)	*PT2 &PT4 biocidal Product Mycobacteri cidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	*Mycobacterium terrae* (ATCC 15755) *Mycobacterium avium* (ATCC 15769)	EN 14348:2005	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) 2015-03-17
Meta-SPC 5 (c)	*PT2&PT4 biocidal product*, bactericidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Enhanced Peroxide (1.5 % H_2O_2)	*Staphylococcus aureus* (DSM 799) *Enterococcus hirae* (DSM 3320) *Escherichia coli* (DSM 682) *Pseudomonas aeruginosa* (DSM 939)	EN 1276:2009	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) Test report No: 15-02116
Meta-SPC 5 (c)	*PT2 &PT4 biocidal product, yeasticidal Fungicidal*	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Enhanced Peroxide (1.5 % H_2O_2)	*Candida albicans* (DSMZ 1386) *Aspergillus brasiliensis* (DSMZ 1988)	EN 1650:2008 +A1 2013	[redacted]	The test item [redacted]	[redacted] (2017) 15-02116-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]	[redacted] complies with EU requirements.	
Meta-SPC 5 (c)	*PT2&PT4 biocidal product Sporicidal*	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Enhanced Peroxide (1.5 % H_2O_2)	Spores of *Bacillus subtilis* (ATCC 6633)	EN 13704:2002	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2014) A 14242-4
Meta-SPC 5 (c)	*PT2 &PT4 Product Bactericidal, yeasticidal and fungicidal*	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Enhanced Peroxide (1.5 % H_2O_2)	*Staphylococcus aureus* (DSM 799) *Enterococcus hirae* (DSM 3320) *Escherichia coli* (DSM 682) *Pseudomonas aeruginosa* (DSM 939) *Candida albicans* (DSMZ 1386)	EN 13697:2001	[redacted]	The [redacted] test item [redacted] complies with EU requirements.	[redacted] (2015) 15-02116

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
				Aspergillus brasiliensis (DSMZ 1988)				
Meta-SPC 5 (c)	*PT2 &PT4 Product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Pseudomonas aeruginosa* (ATCC 15442)	VAH – Methods 2015 EN16615 (2013)	[redacted]	[redacted] The test can be claimed as valid for bactericidal [redacted] activity [redacted].	[redacted] (2015) A 14242-6
Meta-SPC 5 (c)	*PT2&PT4 biocidal product Sporicidal*	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Enhanced Peroxide (1.5 % H_2O_2)	Spores of *Bacillus subtilis* (ATCC 6633)	[redacted] EN 13697:2001	[redacted]	The [redacted] test item [redacted] [redacted] complies with EU requirements.	[redacted] (2015) 15-02116
Meta-SPC 5 (c)	*PT2&PT4 biocidal product*, sporicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Enhanced Peroxide (1.5 % H_2O_2)	Spores of *Bacillus subtilis* (ATCC 6633)	EN 13704 (2002)	[redacted]	[redacted] the test product [redacted] possess sporicidal efficacy [redacted]	[redacted] (2018) A17486-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 5 (c)	*PT2&PT4 biocidal product*, sporicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Enhanced Peroxide ( ) (1.5 % H_2O_2)	Spores of *Bacillus subtilis* (ATCC 6633)	EN 13704 (2002)		the test product possess sporicidal efficacy the test product possess sporicidal efficacy Results are considered validated for that claim in accordance with the requirements of the EN 13704 (2002).	(2018) A17486-2
Meta-SPC 5 (c)	*PT2 &PT4 biocidal Product Bactericidal yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Candida albicans* (ATCC 10231)	Fpr EN16615: 2014		:	(2015, 2018) 2018-03-07; 2015-03-16

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
							The test can be claimed as valid for bactericidal activity [redacted]. [redacted]: The test can be claimed as valid for yeasticidal activity [redacted].	
Meta-SPC 5 (c)	*PT2&PT4 biocidal product*, bactericidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Enhanced Peroxide ([redacted]) (1.5 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Escherichia coli* (ATCC 10536) *Pseudomonas aeruginosa* (ATCC 15442)	EN 1276 (2009)	[redacted]	Following the EN1276 (2009) the test product [redacted] possesses bactericidal efficacy [redacted]. Results are validated in accordance with the requirements of the EN 1276 (2009).	[redacted] (2018) A17486-3
Meta-SPC 5 (c)	*PT2&PT4 biocidal product*, yeasticidal and fungicidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Enhanced Peroxide ([redacted]) (1.5	*Candida albicans* (ATCC 10231) *Aspergillus brasiliensis* (ATCC 16404)	EN 1650 (2013)	[redacted]	According to the EN 1650 (2013) the test product [redacted] possesses yeasticidal efficacy [redacted].	[redacted] (2018) A17486-4

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
			% H_2O_2)				According to the EN 1650 (2013) the test product possesses fungicidal efficacy . the test product possesses fungicidal efficacy Results are validated in accordance with the requirements of the EN 1650 (2013).	
Meta-SPC 5 (c)	*PT2&PT4 biocidal Product Yeasticidal fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	*Candida albicans* (ATCC 10231) *Aspergillus brasiliensis* (ATCC 16404)	Fpr EN16615: 2014		: The test can be claimed as valid for yeasticidal and fungicidal .	(2015) A 14242-7
Meta-SPC 5 (c)	*PT2&PT4 biocidal Product Sporicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food*	Incidin Oxyfoam S (1.5 % H_2O_2)		EN16615: 2015 VAH Ring		The test item demonstrated acceptable sporicidal activity	(2015) Report A 15189-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
		contact surfaces			trial protocol 2014 – Modification of ASTM E2895	[redacted]	[redacted]	
Meta-SPC 5 (c)	*PT2&PT4 biocidal Product Sporicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	[redacted]	EN16615: 2015 VAH Methods 2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) Report A 15189-2
Meta-SPC 5 (c)	*PT2&PT4 biocidal Product Sporicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	[redacted]	Fpr EN16615: 2014	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2018) A 14242-9
Meta-SPC 5 (c)	*PT2&PT4 biocidal Product fungicidal*	*Hard surface disinfectant: Disinfection of direct and*	Incidin Oxyfoam S (1.5 % H_2O_2)	*Aspergillus brasiliensis* (ATCC 16404)	Fpr EN16615: 2014	[redacted]	[redacted]	[redacted] (2015 & 2018)

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
		indirect food contact surfaces				[redacted]	[redacted] : The test can be claimed as valid for fungicidal activity [redacted].	Test reports No: 2015-03-17; 2018-03-07
Meta-SPC 5 (c)	*PT2 &PT4 biocidal Product Sporicidal*	*Hard Surface disinfection: Disinfection of surfaces in Healthcare space*	Incidin Oxyfoam S (1.5 % H_2O_2)	Spores of *C. difficile* (ATCC 6989)	EN 13704:2002	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) 2015-03-27
Meta-SPC 5 (c)	*PT2 &PT4 biocidal Product Sporicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Spores of *Bacillus subtilis* (ATCC 6633)	EN 13704:2002	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) 2015-02-26

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 5 (c)	*PT2&PT4 biocidal Product mycobactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	*Mycobacterium terrae* (ATCC 15755) *Mycobacterium avium* (ATCC 15769)	Pr EN 16615: 2014	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015 & 2018) Test reports No: 2015-03-24; 2018-03-07
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Adenovirus type 5 strain adenoid 75 (ATCC VR-5)	PrEN 14476:2011	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) A12ML1367-2/1448A
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Adenovirus type 5 strain adenoid 75 (ATCC VR-5)	EN 14476:2013	[redacted]	The test [redacted] demonstrated virucidal activity [redacted]	[redacted] (2015) E14L0308adA

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Murine norovirus (as surrogate of human norovirus) (Berlin 06/06 / DE Isolate S99)	PrEN 14476:2011	[redacted]	The test [redacted] demonstrated virucidal activity [redacted]	[redacted] (2012) A12ML1448M
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Modified vaccinia virus Ankara (MVA) (enveloped viruses)	EN 14476: 2013 + A1:2015/prA 2:2016	[redacted]	[redacted]	[redacted] (2017) Test report L17/0097aMV.1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
							[redacted] [redacted] The surface disinfectant can be declared as having virucidal activity against all enveloped viruses.	
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Modified vaccinia virus Ankara (MVA) (enveloped viruses)	EN 14476: 2013 + A1:2015/prA 2:2016	[redacted]	[redacted]	[redacted] (2017) Test report L17/0097aMV.2

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
							[redacted] The surface disinfectant can be declared as having virucidal activity against all enveloped viruses.	
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Human rotavirus strain Wa	DVV/RKI method: 2014	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2017) Test report L17/0620aR.1
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Murine norovirus (as surrogate of human norovirus) (Berlin 06/06 / DE Isolate S99)	EN 14476:2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) E14L0308adM

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]		
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Poliovirus type 1 strain LSc-2ab (Chiron-Behring)	EN 14476:2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) E14L0308aPo
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	polyoma virus SV40	DVV/RKI method: 2008	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) E14L0308aS
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Vaccinia virus strain Elstree	DVV/RKI method: 2008	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2008) A08ML639BV

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]		
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Poliovirus type 1 strain LSc-2ab (Chiron-Behring)	prEN 14476:2011	[redacted]	The test item [redacted] demonstrated virucidal activity [redacted].	[redacted] (2012) EA121448Po
Meta-SPC 5 (c)	*PT2&PT4 biocidal product Sporicidal*	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klercide Sporicidal Enhanced Peroxide (1.5 % H_2O_2)	Spores of *Bacillus subtilis* (ATCC 6633)	EN 13704:2002	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) Report SN 131871.1
Meta-SPC 5 (c)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxyfoam S (1.5 % H_2O_2)	Bovine Viral Diarrhea Virus (BVDV strain NADL)	DVV/RKI method: 2008	[redacted]	The test item [redacted] demonstrated virucidal activity [redacted]. [redacted] complies with EU requirements.	[redacted] (2008) A08ML639BB

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						- [redacted]		
META 6								
	Read acros between Meta-SPC 6 [redacted]: OxyDes Rapid [redacted] are ready to use (RTU) disinfectants for hard surfaces in the food and feed area. [redacted]							
Meta-SPC 6	*PT2&PT4 biocidal product* bactericidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Rapid (2.0 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Escherichia coli* (ATCC 10536) *Pseudomonas*	EN1276:2009	[redacted]	The tested formulation [redacted] was capable to reduce the viable counts of the test strains [redacted].	[redacted] (2018) 18-04552-2

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
				aeruginosa (ATCC 15442)		[redacted]		
Meta-SPC 6	*PT2&PT4 biocidal product* bactericidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Rapid (2.0 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Escherichia coli* (ATCC 10536) *Pseudomonas aeruginosa* (ATCC 15442)	EN1276:2009	[redacted]	The tested formulation [redacted] was capable to reduce the viable counts of the test strains [redacted].	[redacted] (2018) 18-04552-1
Meta-SPC 6	*PT2&PT4 biocidal product* bactericidal, yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Rapid (2.0 % H_2O_2)	*Pseudomonas aeruginosa* (DSM 939) *Escherichia coli* (DSM682) *Staphylococcus aureus* (DSM799) *Enterococcus hirae* (DSM 3320) *Candida albicans* (DSM 1386)	EN1276:2010 EN 1650:2013	[redacted]	The test item [redacted]. [redacted] complies with EU requirements.	[redacted] (2017) 17-08829-1 17-08829-2-1 17-08829-3 17-08829-4 17-08829-5 17-08829-6-1
Meta-SPC 6	*PT2&PT4 biocidal product* yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Rapid (2.0 % H_2O_2)	*Candida albicans* (ATCC 10231)	EN 1650: 2008 + A1:2013	[redacted]	The tested formulation [redacted] was capable to reduce the viable counts of *C. albicans* [redacted].	[redacted] (2018) 18-04552-3

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]		
Meta-SPC 6	*PT2&PT4 biocidal product* yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Rapid (2.0 % H_2O_2)	*Candida albicans* (ATCC 10231)	EN 1650: 2008 + A1:2013	[redacted]	The tested formulation [redacted] was capable to reduce the viable counts of *C. albicans* [redacted].	[redacted] (2018) 18-04552-4
Meta-SPC 6	*PT2&PT4 biocidal product* yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Rapid (2.0 % H_2O_2)	*Candida albicans* (ATCC 10231)	EN 1650: 2008 + A1:2013	[redacted]	The tested formulation [redacted] was capable to reduce the viable counts of *C. albicans* [redacted].	[redacted] (2018) 18-04552-5
Meta-SPC 6	*PT2&PT4 biocidal product* yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Rapid (2.0 % H_2O_2)	*Candida albicans* (ATCC 10231)	EN 1650: 2008 + A1:2013	[redacted]	The tested formulation [redacted] was capable to reduce the viable counts of *C. albicans* [redacted].	[redacted] (2018) 18-04552-6

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]		
Meta-SPC 6	*PT2&PT4 biocidal product*, bactericidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Rapid (2.0 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Escherichia coli* (ATCC 10536) *Salmonella enterica* (ATCC 13311) *Pseudomonas aeruginosa* (ATCC 15442)	EN 13697: 2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) L15/0682.2
Meta-SPC 6	*PT2&PT4 biocidal product*, bactericidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Rapid (2.0 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Escherichia coli* (ATCC 10536) *Salmonella enterica* (ATCC 13311) *Pseudomonas aeruginosa* (ATCC 15442)	EN 13697: 2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) Test report No: L15/0682.1
Meta-SPC 6	*PT2&PT4 biocidal product*, bactericidal, yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Rapid (2.0 % H_2O_2)	*Pseudomonas aeruginosa* (DSM 939) *Escherichia coli* (DSM 682)	EN 13697: 2015 German Version	[redacted]	Bacterial efficacy: The tested formulation [redacted] was capable to reduce the viable count of the test strains [redacted]. Yeasticidal efficacy	[redacted] (2017) Test reports No: 17-08829-7-1; 17-08829-8-1; 17-08829-9

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
				Staphylococcus aureus (DSM 799) *Enterococcus hirae* (DSM 3320) [redacted] *Candida albicans* (DSM 1386)		[redacted]	The tested formulation [redacted] was capable to reduce the viable count of the test strain [redacted]. Yeasticidal efficacy The tested formulation [redacted] was capable to reduce the viable count of the test strain strain [redacted].	
Meta-SPC 6	*PT2 &PT4 biocidal product*, yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Rapid (2.0 % H_2O_2)	*Candida albicans* (ATCC 10231)	EN 13697: 2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) W-265081e.15.SL/to
META 7								
Meta-SPC 7	*PT2&PT4 biocidal product*, bactericidal	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	CidalSan Large Area (4.95 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538)	EN 1276 (2009)	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2018) A 18073-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 7	*PT2&PT4 biocidal product*, bactericidal	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	CidalSan Large Area (4.95 % H_2O_2)		EN 1276: 1997		The test item demonstrated acceptable bactericidal activity The test item possesses acceptable bactericidal activity	(2009) A 09034-2-3
Meta-SPC 7	*PT2&PT4 biocidal product*, bactericidal yeasticidal	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	CidalSan Large Area (4.95 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Escherichia coli* (ATCC 10536) *Pseudomonas aeruginosa*	EN 1276: 1997 EN 1650: 2008		The test item demonstrated acceptable bactericidal activity The test item demonstrated acceptable bactericidal activity The test item	(2009) Test report No: A 09034-1-3 (2018) A 18073-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
				(ATCC 15442) *Candida albicans* (ATCC 10231)		[redacted]	demonstrated acceptable bactericidal activity [redacted]. The test item [redacted] demonstrated acceptable bactericidal activity [redacted]. The test item [redacted] demonstrated acceptable yeasticidal activity [redacted]. The test item [redacted] demonstrated acceptable yeasticidal activity [redacted].	
Meta-SPC 7	*PT2&PT4 biocidal product*, bactericidal Yeasticidal Fungicidal	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	CidalSan Large Area (4.95 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Aspergillus niger* (ATCC 16404) *Candida albicans* (ATCC 10231)	DGHM (2009)	[redacted]	The test item [redacted] demonstrated acceptable bactericidal [redacted] The test item [redacted] demonstrated acceptable bactericidal [redacted] The test item demonstrated acceptable bactericidal [redacted] and yeasticidal [redacted] activity [redacted] The test item [redacted] demonstrated acceptable bactericidal [redacted]	[redacted] (2009) [redacted] A-08261-3-3

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
							[redacted] The test item [redacted] demonstrated acceptable bactericidal [redacted] [redacted] The test item demonstrated acceptable bactericidal and yeasticidal activity [redacted]	
Meta-SPC 7	*PT2&PT4 biocidal product*, bactericidal Yeasticidal	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	CidalSan Large Area (4.95 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Candida albicans* (ATCC 10231)	DGHM (2009)	[redacted]	The test item [redacted] demonstrated acceptable bactericidal activity [redacted] The test item [redacted] demonstrated acceptable bactericidal activity [redacted]	[redacted] (2009) A-08261-3-3
Meta-SPC 7	*PT2&PT4 biocidal product*, bactericidal yeasticidal	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	CidalSan Large Area (Formula [redacted]) (4.95 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Escherichia coli* (ATCC 10536)	EN 13697: 2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2018) Report A 18073-2

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
				Pseudomonas aeruginosa (ATCC 15442) *Candida albicans* (ATCC 10231)		[redacted]		
1-7-b	*PT2&PT4 biocidal product*, Virucidal	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	CidalSan Large Area (4.95 % H_2O_2)	Bovine Viral Diarrhea Virus (BVDV)	DVV and RKI: 2008	[redacted]	The test item [redacted] demonstrated an acceptable virucidal activity [redacted] The test item [redacted] demonstrated an acceptable virucidal activity [redacted]	[redacted] (2009) A09ML733B
1-7-b	*PT2&PT4 biocidal product*, Virucidal	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	CidalSan Large Area (4.95 % H_2O_2)	Vaccinia virus strain Elstree	DVV and RKI: 2008	[redacted]	The test item [redacted] demonstrated an acceptable virucidal activity [redacted]	[redacted] (2009) A09ML733V
META 8								

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	DrySan Oxy Wipes (1.0 % H_2O_2)	*Candida albicans* (DSM 1386)	EN 1650: 2008	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2018) Test report No: 16-12092-1
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product yeasticidal and Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe (1.0 % H_2O_2)	*Aspergillus brasiliensis* (ATCC 16404) *Candida albicans* (ATCC 10231)	EN 13624:2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) 2015-03-03
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Yeasticidal and Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe (1.0 % H_2O_2)	*Candida albicans* (ATCC 10231) *Aspergillus brasiliensis* (ATCC 16404)	EN 13624:2013	[redacted]	The test item [redacted]	[redacted] (2015) A-14239-2

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
							[redacted] complies with EU requirements.	
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Mycobactericdal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe (1.0 % H_2O_2)	*Mycobacterium terrae* (ATCC 15755) *Mycobacterium avium* (ATCC 15769)	DIN EN14348: (2005)	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) 2015-03-17
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Tuberculodical mycobactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe (1.0 % H_2O_2)	*Mycobacterium terrae* (ATCC 15755) *Mycobacterium avium* (ATCC 15769)	EN14348: (2005)	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) A 14239-3
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and*	Incidin OxyWipe (1.0 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442)	EN13727:2012/2013	[redacted]	The test item [redacted]	[redacted] (2015) A-14239-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
		indirect food contact surfaces		*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541)		[redacted]	[redacted] [redacted] complies with EU requirements.	
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Bactericidal,*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe (1.0 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541)	EN 13727 (2014)	[redacted]	The test item [redacted] [redacted] complies with EU requirements.	[redacted] (2015) 2015-02-25
Meta-SPC 8 (a)	PT2 and PT4 biocidal Product Bactericidal,	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe (1.0 % H2O2)	*Pseudomonas aeruginosa (ATCC 15442)* *Staphylococcus aureus (ATCC 6538)* *Enterococcus hirae (ATCC 10541)*	VAH – Methods 2015 EN16615 (2013)	[redacted]	[redacted] The test can be claimed as valid for bactericidal activity [redacted].	[redacted] (2015) A 14239-5
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Bactericidal,*	*Hard surface disinfectant: Disinfection of direct and*	[redacted] (1.0 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442)	EN 13697:2001	[redacted]	The test item [redacted]	[redacted] (2011) A 11116-6

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
	yeasticidal and Fungicidal	*indirect food contact surfaces*		*Escherichia coli* (ATCC 10536) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Aspergillus brasiliensis* (ATCC 16404) *Candida albicans* (ATCC 10231)		[redacted]	[redacted] complies with EU requirements.	
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	DrySan OxyWipes (1.0 % H_2O_2)	[redacted]	EN 16615:2015 German version	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2018) 16-12047-2-2-1
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	DrySan OxyWipes (1.0 % H_2O_2)	[redacted]	EN 16615:2015 German version	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2018) 16-12047-2-1-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]		
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	DrySan OxyWipes (1.0 % H_2O_2)	*Candida albicans* (DSM 1386)	EN 16615:2015 German version	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) 16-12047-3-1-1
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	DrySan OxyWipes (1.0 % H_2O_2)	*Pseudomonas aeruginosa* (DSM 939) *Escherichia coli* (DSM 682) *Staphylococcus aureus* (DSM 799) *Enterococcus hirae* (DSM 3320)	EN 16615:2015 German version	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2018) 16-12047-1-1-1
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	DrySan OxyWipes (1.0 % H_2O_2)	*Escherichia coli* (DSM 682)	EN 16615:2015 German version	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2018) 16-12047-4-2

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]		
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Bactericidal yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe (1.0 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Candida albicans* (ATCC 10231*)*	prEN16615 (2014)	[redacted]	[redacted] The test can be claimed as valid for bactericidal activity [redacted]. [redacted] The test can be claimed as valid for yeasticidal activity [redacted].	[redacted] (2015) 2015-03-13
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe (1.0 % H_2O_2)	*Aspergillus brasiliensis* (ATCC 16404)	prEN16615 (2014)	[redacted]	[redacted]	[redacted] 2015-03-18

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]	The test can be claimed as valid for fungicidal activity [redacted].	
Meta-SPC 8 (a)	*PT2 and PT4 biocidal Product Mycobacteri cidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe (1.0 % H_2O_2)	*Mycobacterium terrae* (ATCC 15755) *Mycobacterium avium* (ATCC 15769)	prEN16615 (2014)	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) 2015-04-07
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	Field of use envisaged	Test substance	Test organism(s)	Test method	Test system / concentrations applied / exposure time	Test results: effects	Reference

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	Field of use envisaged	Test substance	Test organism(s)	Test method	Test system / concentrations applied / exposure time	Test results: effects	Reference

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
META 9								

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 9	*PT2&PT4 biocidal product*, bactericidal	*Hard surface disinfectant Disinfection of food contact surfaces*	[redacted] (7.0 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Escherichia coli* K12 (ATCC 10536) *Pseudomonas aeruginosa* (ATCC 15442)	EN1276:2009	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) Test report No: A 16208-1
Meta-SPC 9	*PT2&PT4 biocidal product*, bactericidal	*Hard surface disinfectant Disinfection of food contact surfaces*	[redacted] (7.0 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Pseudomonas aeruginosa* (ATCC 15442)	EN13727:2012+A2:2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) A 16208-4
Meta-SPC 9	*PT2&PT4 biocidal product*, yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	[redacted] (7.0 % H_2O_2)	*Candida albicans* (ATCC 10231)	EN1650:2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) Test report No: A 16208-2

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 9	*PT2&PT4 biocidal product*, yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	(7.0 % H_2O_2)	*Candida albicans* (ATCC 10231)	EN13624:2013		The test item complies with EU requirements.	(2016) A 16208-5
Meta-SPC 9	*PT2&PT4 biocidal product*, bactericidal and yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	(7.0 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Escherichia coli* K12 (ATCC 10536) *Pseudomonas aeruginosa* (ATCC 15442) *Candida albicans* (ATCC 10231)	EN13697:2015		The test item complies with EU requirements.	(2016) A 16208-3
Meta-SPC 9	*PT2&PT4 biocidal product bactericidal*	*Hard surface disinfectant Disinfection of food contact surfaces*	Maxx Oxy Des (7.0 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *, Enterococcus hirae,* (ATCC 10541) *Pseudomonas aeruginosa* (ATCC 15442)	EN 13727: 2015		The product showed bactericidal efficacy	(2018) L17/0760.2

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 9	*PT2&PT4 biocidal product*, bactericidal and yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	[redacted] (Maxx Oxy Des2) (7.0 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Escherichia coli* K12 (ATCC 10536) *Pseudomonas aeruginosa* (ATCC 15442) *Candida albicans* (ATCC 10231)	EN13697:2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2017) 17-05489
Meta-SPC 9	*PT2&PT4 biocidal product*, fungicidal, bactericidal, yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	Maxx Oxy Des (7.0 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Escherichia coli* (ATCC 10536) *Pseudomonas aeruginosa* (ATCC 15442) *Candida albicans,* (ATCC 10231) *Aspergillus brasiliensis* (ATCC 16404)	EN 13697:2015	[redacted]	The product showed bactericidal, yeasticidal and fungicidal efficacy [redacted].	[redacted] (2018) L17/0760.4
Meta-SPC 9	*PT2&PT4 biocidal product*, Bactericidal, yeasticidal, fungicidal	*Hard surface disinfectant Disinfection of food contact surfaces*	[redacted] (Maxx Oxy Des2) (7.0 % H_2O_2)	*Staphylococcus aureus* (DSM 799) *Enterococcus hirae* (DSM 3320) *Pseudomonas aeruginosa* (DSM 939)	EN16615:2015	[redacted]	The test item [redacted]	[redacted] (2017) 16-20134

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
				Candida albicans (DSM 1386)		[redacted]	[redacted] complies with EU requirements.	
Meta-SPC 9	*PT2&PT4 biocidal product*, fungicidal	*Hard surface disinfectant Disinfection of food contact surfaces*	Maxx Oxy Des (7.0 % H_2O_2)	*Aspergillus brasiliensis* (DSM 1988)	EN 1650:2008 (+A1:2013)	[redacted]	The sample tested achieved the required fungicidal efficacy [redacted].	[redacted] (2017) 17-14881-1-2
Meta-SPC 9	*PT2&PT4 biocidal product*, fungicidal	*Hard surface disinfectant Disinfection of food contact surfaces*	Maxx Oxy Des (7.0 % H_2O_2)	*Aspergillus brasiliensis* (DSM 1988)	EN 13624:2013	[redacted]	The sample tested achieved the required fungicidal efficacy [redacted].	[redacted] (2017) 17-14881-2-2
Meta-SPC 9	*PT2&PT4 biocidal product*, virucidal	*Hard surface disinfectant Disinfection of food contact surfaces*	Maxx Oxy Des 2 (7.0 % H_2O_2)	*Adenovirus* type 5 strain *adenoid* 75 (ATCC VR-5)	EN14476:2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2017) L16/0949A.1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]		
Meta-SPC 9	*PT2&PT4 biocidal product*, virucidall	*Hard surface disinfectant Disinfection of food contact surfaces*	Maxx Oxy Des 2 (7.0 % H_2O_2)	Poliovirus Type 1 strain LSc-2ab	EN14476:2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2017) L16/0949Po.2
Meta-SPC 9	*PT2&PT4 biocidal product*, virucidal	*Hard surface disinfectant Disinfection of food contact surfaces*	Maxx Oxy Des 2 (7.0 % H_2O_2)	Murine norovirus strain S99 Berlin	EN14476:2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2017) L16/0949M1
Meta-SPC 9	*PT2&PT4 biocidal product*, bactericidal	*Hard surface disinfectant Disinfection of food contact surfaces*	Maxx Oxy Des 2 ([redacted])	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541)	EN 13727:2015	[redacted]	The product [redacted]	[redacted] (2018) 2018-2370

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
				Pseudomonas aeruginosa (ATCC 15442)		[redacted]	[redacted] complies with EU requirements.	
Meta-SPC 9	*PT2&PT4 biocidal product*, yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	Maxx Oxy Des 2 ([redacted])	*Candida albicans* (ATCC 10231)	EN 13624:2013/ prA1:2018)	[redacted]	The product [redacted] complies with EU requirements.	[redacted] (2018) 2018-2372
Meta-SPC 9	*PT2&PT4 biocidal product*, fungicidal	*Hard surface disinfectant Disinfection of food contact surfaces*	Maxx Oxy Des 2 ([redacted])	*Aspergillus brasiliensis* (ATCC 16404)	EN 13624:2013/ prA1:2018)	[redacted]	The product [redacted] complies with EU requirements.	[redacted] (2018) 2018-2374
Meta-SPC 9	*PT2&PT4 biocidal product*, fungicidal	*Hard surface disinfectant Disinfection of food contact surfaces*	Maxx Oxy Des 2 ([redacted])	*Aspergillus brasiliensis* (ATCC 16404)	EN 16615:2015	[redacted]	The product [redacted]	[redacted] (2018) 2018-2375

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]	[redacted] complies with EU requirements.	
META 10								
Meta-SPC 10	*PT1 biocidal product Bactericidal*	*Hygienic Hand disinfection*	Manosan Oxy (1.4 % H_2O_2)	*P. aeruginosa* (ATCC 15442) *S. aureus* (ATCC 6538) *E. hirae* (ATCC 10541) *E. coli K12* (ATCC 10538)	EN 13727:2012 + A2:2015	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) A 15285-3
Meta-SPC 10	*PT1 biocidal product Yeasticidal*	*Hygienic Hand disinfection*	Manosan Oxy (1.4 % H_2O_2)	*Candida albicans* (ATCC 10231)	EN 13624 2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2016) Test report No: A 16265
Meta-SPC 10	*PT1 biocidal product Bactericidal*	*Hygienic Hand disinfection*	Manosan Oxy (1.4 % H_2O_2)	*E. coli K12* (ATCC 10538)	EN1499:2013	[redacted]	The test item [redacted]	[redacted] (2016) A 15285-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
							complies with EU requirements.	
Meta-SPC 10	*PT1 biocidal product Bactericidal*	*Hygienic Hand disinfection*	Manosan Oxy	*P. aeruginosa* (ATCC 15442) *S. aureus* (ATCC 6538) *E. hirae* (ATCC 10541) *E. coli K12* (ATCC 10538)	EN 13727:2012 + A2:2015		The product tested showed a sufficient bactericidal efficacy	(2018) 18-04555-3
Meta-SPC 10	*PT1 biocidal product Bactericidal*	*Hygienic Hand disinfection*	Manosan Oxy	*P. aeruginosa* (ATCC 15442) *S. aureus* (ATCC 6538) *E. hirae* (ATCC 10541) *E. coli K12* (ATCC 10538)	EN 13727:2012 + A2:2015		The product tested showed a sufficient bactericidal efficacy	(2018) 18-04555-4
Meta-SPC 10	*PT1 biocidal product*	*Hygienic Hand*	Manosan Oxy	*Candida albicans*	EN13624: 2013		The product tested showed a sufficient yesticidal efficacy	(2018)

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
	yeasticidal	*disinfection*	[redacted]	DSM 1386 (ATCC 10231)		[redacted]	[redacted]	18-04555-1
Meta-SPC 10	*PT1 biocidal product Yeasticidal*	*Hygienic Hand disinfection*	Manosan Oxy [redacted]	*Candida albicans* DSM 1386 (ATCC 10231	EN13624: 2013	[redacted]	The product tested showed a sufficient yesticidal efficacy [redacted]	[redacted] (2018) 18-04555-2
META 11								
Meta-SPC 11 (c)	*PT2&PT4 biocidal product*, bactericidal	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klerwipe Sporicidal Enhanced Peroxide (1.5 % H_2O_2)	*Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Pseudomonas aeruginosa* (ATCC 15442)	EN 16615:2015	[redacted]	The product [redacted] complies with EU requirements.	[redacted] (2017) A17206-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 11 (c)	*PT2 &PT4 biocidal product, yeasticidal Fungicidal*	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klerwipe Sporicidal Enhanced Peroxide (1.5 % H_2O_2)	*Candida albicans* (ATCC 10231)	EN 16615:2015		The test can be claimed as valid for yeasticidal activity . The test can be claimed as valid for fungicidal activity	(2017) A17206-2
Meta-SPC 11 (c)	*PT2&PT4 biocidal product Sporicidal*	*Hard surface disinfectant: Lifesciences Cleanroom biocide*	Klerwipe Sporicidal Enhanced Peroxide (1.5 % H_2O_2)		EN 16615:2015		Thus, the test can be claimed as valid for sporicidal activity .	(2017) A17206-3
Meta-SPC 11 (d)	*PT2 &PT4 biocidal Product bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae*	EN 13727: 2014		The test item complies with EU requirements.	(2015) 2015-02-25

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
				(ATCC 10541)		[redacted]		
Meta-SPC 11 (d)	*PT2 &PT4 biocidal Product bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541)	EN 13727: 2012/2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) Report A 14241-1
Meta-SPC 11 (d)	*PT2&PT4 biocidal Product yeasticidal Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	*Candida albicans* (ATCC 10231) *Aspergillus brasiliensis* (ATCC 16404)	EN 13624: 2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) A 14241-2
Meta-SPC 11 (d)	*PT2 &PT4 biocidal Product*	*Hard surface disinfectant: Disinfection*	Incidin OxyWipe S (1.5 % H_2O_2)	*Escherichia coli K12* (NCTC 10538)	*Standard methods of the German*	[redacted]	The test item [redacted] demonstrated acceptable bactericidal [redacted] activity [redacted]	[redacted] (2015) A 14241-5

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
	bactericidal yeasticidal	*of direct and indirect food contact surfaces*		*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Proteus mirabilis* (ATCC 14153) *Candida albicans* (ATCC 10231)	*society for hygiene and microbiology : 2011*	[redacted]	[redacted] The test item [redacted] demonstrated acceptable yeasticidal activity [redacted]	
Meta-SPC 11 (d)	*PT2&PT4 biocidal Product yeasticidal Fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	*Candida albicans* (ATCC 10231) *Aspergillus brasiliensis* (ATCC 16404)	EN 13624: 2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) 2015-03-03
Meta-SPC 11 (d)	*PT2&PT4 biocidal Product Tuberculocidal mycobactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	*Mycobacterium terrae* (ATCC 15755) *Mycobacterium avium* (ATCC 15769)	EN 14348: 2005	[redacted]	The test item [redacted]	[redacted] (2015) Report A 14241-3

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
						[redacted]	[redacted] complies with EU requirements.	
Meta-SPC 11 (d)	*PT2&PT4 biocidal Product mycobacteri cidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	*Mycobacterium terrae* (ATCC 15755) *Mycobacterium avium* (ATCC 15769)	EN 14348:2005	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) 2015-03-17
Meta-SPC 11 (d)	*PT2 &PT4 biocidal Product Sporicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	[redacted]	EN 13704:2002	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) 2015-04-30
Meta-SPC 11 (d)	*PT2 &PT4 biocidal Product Sporicidal*	*Hard surface disinfectant: Disinfection of direct and*	Incidin OxyWipe S (1.5 % H_2O_2)	[redacted]	EN 16615 (2015) VAH	[redacted]	[redacted]	[redacted] (2015) Report A 15190-2

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
		indirect food contact surfaces			methods 2015		The test can be claimed as valid for sporicidal activity .	
Meta-SPC 11 (d)	*PT2&PT4 biocidal Product Tuberculocidal mycobacteri cidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)		Fpr EN16615: 2014		The test item demonstrated acceptable tuberculocidal and mycobactericidal activity	(2015 & 2018) 2015-03-24 (1st test run) (2nd test run) 2018-03-07 (3rd run)
Meta-SPC 11 (d)	*PT2 &PT4biocidal Product Yeasticidal and fungicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	*Candida albicans* (ATCC 10231)	Fpr EN16615: 2014		The test item demonstrated acceptable fungicidal activity	(2015) A 14241-7

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
							[redacted].	
Meta-SPC 11 (d)	*PT2 and PT4 biocidal Product Bactericidal and yeasticidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxywipe S (1.5 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541) *Candida albicans* (ATCC 10231)	prEN16615 (2014)	[redacted]	[redacted] : The test can be claimed as valid for bactericidal activity [redacted]. : The test can be claimed as valid for yesticidal activity [redacted].	[redacted] (2015 & 2018), [redacted] 2018-03-07 (1st run) 2015-03-16 (2nd run) 2018-03-07 (3rd run)
Meta-SPC 11 (d)	*PT2&PT4 biocidal Product*	*Hard surface disinfectant: Disinfection*	Incidin Oxywipe S (1.5 % H_2O_2)	[redacted]	Fpr EN16615: 2014	[redacted]	[redacted]	[redacted] (2015) 2015-03-18 (1st

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
	fungicidal	*of direct and indirect food contact surfaces*		[redacted]		[redacted]	[redacted] Run) 2015-03-25 (2nd Run) : 2018-03-07 (3rd Run) The test can be claimed as valid for fungicidal activity [redacted].	
Meta-SPC 11 (d)	*PT2 &PT4 biocidal Product sporicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	Spores of *B. subtilis* (ATCC 6633)	EN 13704:2002	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) A 14241-4
Meta-SPC 11 (d)	*PT2 &PT4 biocidal Product sporicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S [redacted]	Spores of *B. subtilis* (ATCC 6633)	EN 13704:2002	[redacted]	All test items [redacted] demonstrated acceptable sporicidal activity [redacted].	[redacted] (2016) A 16029

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 11 (d)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	Adenovirus type 5	EN 14476: 2013	[redacted]	The test item [redacted] demonstrated virucidal activity [redacted]. [redacted].	[redacted] (2015) Test report E14L0308ccA
Meta-SPC 11 (d)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	Adenovirus type 5	EN 14476: 2013	[redacted]	The test item [redacted] demonstrated virucidal activity [redacted]. [redacted]	[redacted] (2015) Test report E14L0308cdA
Meta-SPC 11 (d)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxywipe S (1.5 % H_2O_2)	Poliovirus type 1 strain LSc-2ab (Chiron-Behring)	EN 14476: 2013	[redacted]	The test item [redacted] [redacted] complies with EU requirements.	[redacted] (2015) E14L0308cPo

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 11 (d)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxwipe S (1.5 % H_2O_2)	Murine norovirus (as surrogate of human norovirus) (Berlin 06/06 / DE Isolate S99)	EN 14476:2013		The test item complies with EU requirements.	(2015) E14/15L0308/0120cdM

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 11 (d)	*PT2 and PT4 biocidal Product Virucidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxwipe S (1.5 % H_2O_2)	Murine norovirus (as surrogate of human norovirus) (Berlin 06/06 / DE Isolate S99)	EN 14476:2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) E14/15L0308/0120c cM
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Meta-SPC 11 (d)	*PT2&PT4 biocidal Product sporicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	[redacted]	Fpr EN16615: 2014	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) A 14241-10

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 11 (d)	*PT2 &PT4 biocidal Product bactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) *Staphylococcus aureus* (ATCC 6538) *Enterococcus hirae* (ATCC 10541)	VAH Guidelines (4-field test) Fpr EN16615: 2013	[redacted]	The test item [redacted] complies with EU requirements.	[redacted] (2015) A 14241-6
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
Meta-SPC 11 (d)	*PT2&PT4 biocidal Product Tuberculocidal mycobactericidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin Oxywipe S (1.5 % H_2O_2)	[redacted]	Pr EN 16615: 2013 VAH methods 2015	[redacted]	The test item [redacted] [redacted] complies with EU requirements.	[redacted] (2015) Report A 14241-8
Meta-SPC 11(d)	*PT2 &PT4 biocidal Product Sporicidal*	*Hard surface disinfectant: Disinfection of direct and indirect food contact surfaces*	Incidin OxyWipe S (1.5 % H_2O_2)	Spores of *B. subtilis* (ATCC 6633)	EN 13704:2018 [redacted]	[redacted]	The test item [redacted] demonstrated acceptable sporicidal activity The test item [redacted] demonstrated sporicidal activity	[redacted] (2018) A18422
META 12								
Meta-SPC 12	*PT2&PT4 biocidal product*, bactericidal yeasticidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes Maxi Wipes (2.0 % H_2O_2)	*Pseudomonas aeruginosa* (ATCC 15442) (DSM 939) *Escherichia coli* (ATCC 10536) *(DSM 682)* *Staphylococcus aureus*	EN 16615:2015	[redacted]	The test item applied [redacted] demonstrates acceptable bactericidal activity The test item applied [redacted] demonstrates acceptable bactericidal activity	[redacted] (2017) Test reports No: 16-12047-6-1-1; 16-12047-6-2-2; 16-12047-7-3-1; 16-12047-8-1-1; 16-12047-8-3-1

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	**Field of use envisaged**	**Test substance**	**Test organism(s)**	**Test method**	**Test system / concentrations applied / exposure time**	**Test results: effects**	**Reference**
				(ATCC 6538) (DSM 799) *Enterococcus hirae* (ATCC 10541) (DSM 3320) *Candida albicans* (DSM 1386)			The test item applied demonstrates acceptable bactericidal activity The test item applied demonstrates acceptable yeasticidal activity The test item applied demonstrates acceptable yeasticidal activity	
Meta-SPC 12	*PT2&PT4 biocidal product*, bactericidal	*Hard surface disinfectant Disinfection of food contact surfaces*	OxyDes MaxiWipes (2.0 % H_2O_2)		EN 16615:2015 German version		The test item complies with EU requirements.	(2016) 16-12047-7-3
Efficacy against coformulants								

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	Field of use envisaged	Test substance	Test organism(s)	Test method	Test system / concentrations applied / exposure time	Test results: effects	Reference
[redacted]								
[redacted]								
[redacted]								
[redacted]								

	Experimental data on the efficacy of the biocidal product against target organism(s)							
	Function	Field of use envisaged	Test substance	Test organism(s)	Test method	Test system / concentrations applied / exposure time	Test results: effects	Reference
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Conclusion on the efficacy of the product

META SPC 1

Klercide Sporicidal Low residue peroxide (liquid), **Klerwipe Sporicidal Low residue peroxide** (wipe, 55 %Polyester / 45% Cellulose blend) and **Anios H_2O_2 6% IP Sterile** (liquid) are the representative product(s) for Meta SPC 1-1-a ([redacted]). It is a 6% (w/w) dilution of the active substance hydrogen peroxide, and are used as a ready

to use product. A series of assays were conducted on Klercide Sporicidal Low residue peroxide to determine the bactericidal, fungicidal, yeasticidal, viricidal and sporicidal activity.
Application methods include spraying (Klercide Sporicidal Low Residue Peroxide and Anios H_2O_2 6% IP Sterile), wiping (Klercide Sporicidal Low Residue Peroxide, Anios H_2O_2 6% IP Sterile and Klerwipe Sporicidal Low Residue Peroxide), and mopping (Klercide Sporicidal Low Residue Peroxide, Anios H_2O_2 6% IP Sterile and Klerwipe Sporicidal Low Residue Peroxide).

The products are:
PT2: Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) - Hard non-porous surfaces disinfection - Disinfection of surfaces, materials and equipment in in Life Sciences Cleanroom A - D and supporting environments (e.g. pharmaceutical industry).
The product claims for PT2 uses can be found below.

Summary of the label claims:

Application method	Contact time	Temp.	Target organism	Concentration
Spraying (clean conditions)	15 min	20^0C	Bacteria	RTU
	5 min	20^0C	Yeasts	RTU
	15 min	20^0C	Fungi	RTU
	60 min	20^0C	Viruses	RTU
	60 min	20°C	Spores (bacterial)	RTU
Wiping & mopping (clean conditions)	5 min	20^0C	Bacteria	RTU
	5 min	20^0C	Yeasts	RTU
	5 min	20^0C	Fungi	RTU
	60 min	20^0C	Spore	RTU
	60 min	20^0C	Viruses	RTU

Supporting tests:
Bactericidal Claim for disinfection of pre-cleaned non-porous hard surfaces at ambient temperature with a contact time of 15 minutes for the undiluted liquid product format with non-mechanical action and 5 minutes contact time for the wipe product format with mechanical action.

EN 1276:2009 (Phase 2, step 1) to support bactericidal claim. The undiluted product Klerwipe Sporicidal Low residue peroxide ([redacted]) passed the test under clean conditions (0.03% bovine albumin) at 5 minutes contact time and at 20ºC. *Please see* [redacted].

EN 13697:2015 (Phase 2, step 2) to support bactericidal claims without mechanical action. The undiluted product Klercide Sporicidal Low residue peroxide passed the test under clean conditions (0.03% bovine albumin) at 15 minutes contact time and at 20ºC. *Please see* [redacted].

Fpr EN16615:2015 (Phase 2, step 2) to support bactericidal claims with mechanical action. The product Klerwipe Sporicidal Low residue peroxide passed the test under clean conditions (0.03% bovine albumin) at 5 minutes contact time and at 20ºC. *Please see* [redacted].

Yeasticidal Claim for disinfection of pre-cleaned non-porous hard surfaces at ambient temperature with a contact time of 5 minutes for the liquid product format with non-mechanical action and 5-minute contact time for the wipe product format with mechanical action.

EN 1650:2008 (Phase 2, step 1) to support yeasticidal claim. The undiluted product Klercide Sporicidal Low residue peroxide passed the test under clean conditions (0.03% bovine albumin) at 5 minutes contact time and at 20ºC. *Please see* [redacted].

EN 13697:2015 (Phase 2, step 2) to support yeasticidal claims without mechanical action. The undiluted product Klercide Sporicidal Low residue peroxide passed the test under clean conditions (0.03% bovine albumin) at 5 minutes contact time and at 20ºC. *Please see* [redacted].

Fpr EN16615:2015 (Phase 2, step 2) to support yeasticidal claims with mechanical action. The undiluted product Klerwipe Sporicidal Low residue peroxide passed the test under clean conditions (0.03% bovine albumin) after 1-minute contact time and at 20ºC. *Please see* [redacted].

Fungicidal Claim for disinfection of pre-cleaned non-porous hard surfaces at ambient temperature with a contact time of 15 minutes for the liquid product format with non-mechanical action and 5 minutes contact time for the wipe product format with mechanical action.

EN 1650:2008 (Phase 2, step 1) to support fungicidal claim. The undiluted product Klerwipe Sporicidal Low residue peroxide ([redacted]) passed the test under clean conditions (0.03% bovine albumin) at 5 minutes contact time and at 20ºC. *Please see* [redacted].

EN 13697:2015 (Phase 2, step 2) to support fungicidal claims without mechanical action. The undiluted product Klercide Sporicidal Low residue peroxide passed the test under clean conditions (0.03% bovine albumin) at 15 minutes contact time and at 20ºC. *Please see* [redacted].

Fpr EN 16615:2015 (Phase 2, step 2) to support fungicidal claims with mechanical action. The undiluted product Klerwipe Sporicidal Low residue peroxide passed the test under clean conditions (0.03% bovine albumin) at 2 minutes contact time and at 20ºC. *Please see* [redacted].

Sporicidal claim for disinfection of pre-cleaned non-porous hard surfaces at ambient temperature with a contact time of 60 minutes for the liquid product format with non-mechanical action and 60 minutes contact time for the wipe product format with mechanical action. Efficacy against an additional (non-mandatory test organism *Bacillus cereus* (CIP 105151; equivalent ATCC 12826) was also demonstrated.

EN 13704:2005 (Phase 2, step 1) to support sporicidal claim. The undiluted product Klercide Sporicidal Low residue peroxide passed the test under clean conditions (0.03% bovine albumin) at 60 minutes contact time and at 20ºC. *Please see* [redacted].

EN 13704:2002 (Phase 2, step 1) to support sporicidal claim. The undiluted product Klerwipe Sporicidal Low residue peroxide ([redacted]) passed the test under clean conditions (0.03% bovine albumin) at 60 minutes contact time and at 20ºC. *Please see* [redacted].

Fpr EN 16615:2014 (modified) (Phase 2, step 2) to support sporicidal claims with mechanical action. The undiluted product Klerwipe Sporicidal Low residue peroxide demonstrated acceptable activity under clean conditions (0.03% bovine albumin) after 2 minutes contact time [redacted] at 20ºC. *Please see* [redacted].

EN 13704:2005 (Phase 2, step 1) to support sporicidal claim against *B. cereus*. The undiluted product Anios H_2O_2 6% IP Sterile passed the test under clean conditions (0.03% bovine albumin) at 15 minutes contact time and at 20ºC. *Please see* [redacted].

Viricidal claim for disinfection of pre-cleaned non-porous hard surfaces at ambient temperature with a contact time of 60 minutes for the undiluted liquid product

EN 14476:2007 (Phase 2, step 1) to support viricidal claim. The undiluted product Klercide Sporicidal Low residue peroxide passed the test under clean conditions (0.03% bovine albumin) at 60 minutes contact time and at 20ºC against Human Adenovirus C, (HAdVC), Human Poliovirus (HPV-1) and Murine Norovirus S99, Strain Berlin/06/DE. *Please see* [redacted].

META SPC 2

DrySan Oxy is the representative product for Meta SPC 2 (a)**.** It is a 1.0% (w/w) dilution of the active substance hydrogen peroxide which is used as a ready to use product. [redacted].

Application methods include:

Spraying using trigger sprayer and dry wipe
Mopping using mop and bucket
Spraying using trigger sprayer and dry wipe and mopping using mop and bucket
Fixed installed spraying

PT2: Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) - Disinfection of small surfaces (floors) in industry (e.g. dining areas, bathrooms) by mopping using flat mop and bucket; Disinfection of small surfaces in industry (e.g. dining areas, bathrooms) by spraying using trigger sprayer and dry wipe and/or by mopping using flat mop and bucket.
PT4: Food and feed area (Disinfectants) – Food and beverage industry - automated disinfection application in industrial process equipment by fixed installed spraying; Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe.

The product claims for PT2 and PT4 uses can be found below.

Summary of the label claims:

Application method	Contact time	Temp.	Target organism	Concentration
Spraying, (dirty conditions)	5 min	20^0C	Bacteria	RTU
	5 min	20^0C	Yeasts	RTU
Spraying and wiping, spraying and/or mopping, mopping (dirty conditions)	5 min	20°C	Bacteria	RTU
	5 min	20^0C	Yeasts	RTU
	15 min	20^0C	Fungi	RTU
	60 min	20^0C	Mycobacteria	RTU

Supporting tests:
Bactericidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 5 minutes for the undiluted liquid product format with non-mechanical action and 5 minutes contact time for the undiluted product with mechanical action

EN 13727 (Phase 2, step 1) to support bactericidal claim. The undiluted product DrySan Oxy passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 10 °C. *Please see* [redacted]

EN 13727 (Phase 2, step 1) to support bactericidal claim. The undiluted product lncidin OxyWipe passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes at 15 seconds contact time and at 20°C. *Please see* [redacted].

EN 13727 (Phase 2, step 1) to support bactericidal claim. The undiluted product lncidin OxyWipe passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes at 1-minute contact time and at 20°C. *Please see* [redacted]

EN 13727 (Phase 2, step 1) to support bactericidal claim. The undiluted product lncidin OxyWipe passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes at 15 seconds, 1-minute and 5-minute contact times and at 20°C. *Please see* [redacted].

EN 13727 (Phase 2, step 1) to support bactericidal claim. The undiluted product lncidin OxyWipe passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes at 1-minute contact time and at 20°C. *Please see* [redacted]

EN 13697 (Phase 2, step 2) to support bactericidal claim without mechanical action. The undiluted product DrySan Oxy passed the test under dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes at 5-minute contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support bactericidal claim with mechanical action. The undiluted product lncidin OxyWipe passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes at 5-minutes contact time and at 20°C. *Please see* [redacted].

<u>Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 5 minutes for the undiluted liquid product format with non-mechanical action and 5 minutes contact time for the undiluted product with mechanical action.</u>

EN 1650: 2008 (Phase 2, step 1) to support yeasticidal claim. The 50% diluted product DrySan Oxy Wipes passed the test under dirty conditions (0.3% bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted]

EN 13697:2015 (Phase 2, step 2) to support yeasticidal claim. The undiluted product DrySan Oxy spray passed the test under dirty conditions (0.3% bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support yeasticidal claim with mechanical action. The undiluted product lncidin OxyWipe passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes at 5-minute contact time and at 20°C. *Please see* [redacted].

Fungicidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 15 minutes contact time for the undiluted product with mechanical action.

EN 13624:2013 (Phase 2, step 1) to support fungicidal claim. The undiluted product lncidin OxyWipe passed the test under dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 15-minutes contact time and at 20°C. *Please see* [redacted].

[redacted]

Mycobactericidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 60 minutes contact time for the undiluted product with mechanical action.

EN 14348:2005 (Phase 2, step 1) to support mycobactericidal activity. The undiluted product lncidin OxyWipe passed the test under clean (0.03% bovine albumin) and dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 30 minutes contact time and at 20°C. *Please see* [redacted].

[redacted]

META SPC 3

Meta SPC 3: OxyPak D, Oxypak S, and Oxypak S10

OxyPak D is the representative product for Meta SPC 1-3-a. It is a 35% (w/w) dilution of the active substance Hydrogen peroxide, [redacted]. A series of assays were conducted on [redacted] OxyPak D to determine the bactericidal, sporicidal, fungicidal and yeasticidal activity.
Application methods include automated dipping or spraying in closed system (aseptic filling) and cleaning in place (CIP); (closed process).
The products are:
PT4: Food and feed area (Disinfectants) – Disinfection of packaging (aseptic filling) by fully automated dipping and spraying (closed process); disinfection by CIP (closed process).

The product claims for PT4 uses can be found below.

Summary of the claims:

Application method	Contact time	Temp.	Target organism	Concentration
CIP closed process (clean conditions)	5 min	60^0C	Bacteria	RTU
	5 min	60^0C	Yeasts	RTU
	15 min	60^0C	Fungi	RTU
Automated dipping or Spraying (clean conditions)	1 min	60^0C	Bacteria	RTU
	1 min	60^0C	Yeasts	RTU
	1 min	60^0C	Fungi	RTU
	1 min	60^0C	Spores (Bacterial)	RTU

Supporting tests:

<u>Bactericidal Claim for disinfection of pre-cleaned non-porous hard surfaces at 60°C with a contact time of 1-minutes for the 80% diluted product without mechanical action.</u>

EN 1276:2009 (Phase 2, step 1) to support bacterial claim. The 60% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 1-minute contact time and at 60ºC. P*lease see* [redacted]

EN 13697:2015 (Phase 2, step 2) to support bactericidal claim. The 80% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 1-minute contact time and at 60°C. *Please see* [redacted].

Bactericidal Claim for disinfection of pre-cleaned non-porous hard surfaces in CIP disinfection at 60°C with a contact time of 5 minutes for the 80% diluted product without mechanical action.

EN 1276:2009 (Phase 2, step 1) to support bacterial claim. The 60% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 1-minute contact time and at 60ºC. P*lease see* [redacted];

EN 1276:2009 (Phase 2, step 1) to support bacterial claim. The 80% diluted product [redacted] OxyPak D passed the test under clean conditions (0.3% bovine albumin) at 1-minute contact time and at 60ºC. P*lease see* [redacted];

EN 13697:2015 (Phase 2, step 2) to support bactericidal claim. The 25% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine) at 5 minutes contact time and at 60°C. *Please see* [redacted];

EN 13697:2015 (Phase 2, step 2) to support bactericidal claim. The 50% diluted product [redacted] OxyPak D passed the test under clean conditions (0.3% bovine) at 1 minute contact time and at 60°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of pre-cleaned non-porous hard surfaces at 60°C with a contact time of 1-minute for the 70% and 40% diluted product, respectively without mechanical action.

EN 1650:2008 (Phase 2, step 1) to support yeasticidal claim. The 40% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 1-minute contact time and at 60°C. *Please see* [redacted].

EN 13697:2015 (Phase 2, step 2) to support yeasticidal claim. The 40% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 1-minute contact time at 60°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of pre-cleaned non-porous hard surfaces in CIP disinfection at 60°C with a contact time of 5 minutes for the 50% and 25% diluted product, respectively without mechanical action.

EN 1650:2008 (Phase 2, step 1) to support yeasticidal claim. The 25% and 50% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 5 minutes contact time and at 60°C. *Please see* [redacted].

EN 13697:2015 (Phase 2, step 2) to support yeasticidal claim. The 25% and 50% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 5 minutes contact time and at 60°C. *Please see* [redacted].

Fungicidal Claim for disinfection of pre-cleaned non-porous hard surfaces at 60°C with a contact time of 1-minute for the 80% diluted product without mechanical action.

EN 1650:2008 (Phase 2, step 1) to support fungicidal claim. The 40% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 1-minute contact time and at 60ºC. *Please see* [redacted].

EN 13697:2015 (Phase 2, step 2) to support fungicidal claim. The 80% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 1-minute contact time and at 60°C. *Please see* [redacted].

Fungicidal Claim for disinfection of pre-cleaned non-porous hard surfaces in CIP disinfection at 60°C with a contact time of 15 minutes for the 25% diluted product without mechanical action.

EN 1650:2008 (Phase 2, step 1) to support fungicidal claim. The 25% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 15 minutes contact time and at 60°C. *Please see* [redacted].

EN 13697:2015 (Phase 2, step 2) to support fungicidal claim. The 25% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 15 minutes contact time and at 60°C. *Please see* [redacted].

Sporicidal Claim for disinfection of pre-cleaned non-porous hard surfaces at 60°C with a contact time of 1-minute for the 50% diluted product without mechanical action.

EN 13704:2002 (Phase 2, step 1) to support sporicidal claim. The 50% diluted product [redacted] OxyPak D passed the test under clean conditions (0.03% bovine albumin) at 1-minute contact time and at 60ºC. *Please see* [redacted].

[redacted]

Meta SPC 4

OxyFoam Plus, Predip PLUS and MEPA Foam Pro D

OxyFoam Plus (Meta SPC 1-4-b; Liquid for PT3 uses) containing 1.4% active substance concentration are the representative products for Meta SPC 1-4. [redacted]

Application method is manual dipping using a dip/foam cup.

PT3: Veterinary hygiene (Disinfectants) - Teat dips for pre-milking disinfection.

Summary of the label claims:

Application method	Contact time	Temp.	Target organism	Concentration
Manual dipping (clean conditions)	60 sec	30^0C	Bacteria	RTU
	60 sec	30^0C	Yeasts	RTU

Supporting tests:

Bactericidal Claim for PT3 teat disinfection of pre-cleaned teats at 30°C with a contact time of 60 seconds for the undiluted fresh product.

EN 1656:2009 (Phase 2, step 1) to support teat disinfectant bactericidal claim. The 20% diluted product OxyFoam Plus passed the test under clean conditions (0.3% albumin) at 60 seconds contact time and at 30°C. *Please see* [redacted].
EN 1500:2013 (Phase 2, step 2) to support teat disinfection bactericidal claim. The undiluted product Oxy Foam Plus passed the test at 1-minute contact time and at hand temperature. *Please see* [redacted].

Yeasticidal Claim for PT3 teat disinfection of pre-cleaned teats at 30°C with a contact time of 1-minute for the undiluted fresh product.

EN 1657:2014 (Phase 2, step 1) to support yeasticidal claim. The undiluted product OxyFoam Plus passed the test under clean conditions (3g/L albumin) at 60 seconds contact time and at 30°C. *Please see* [redacted].

Meta SPC 5

Incidin OxyFoam (liquid product) is the representative product for Meta SPC 1-5-b. The product is a 1.5% (w/w) dilution of the active substance hydrogen peroxide and it is used as a ready to use product. A series of assays were conducted on Incidin OxyFoam to determine the bactericidal, fungicidal, yeasticidal, mycobactericidal activity.
Application method:
Spraying the surface and then wiping with clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface
Having the disinfectant in a bucket and wiping with a single use clean cloth/wipe

The products are:
PT2: Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) – disinfection of surfaces, materials and equipment in health care areas that are frequently touched by people and that are not frequently touched.

Summary in the label claims:

Group	Application method	Contact time	Temp.	Target organism	Concentration
5 (b)	Spraying and then wiping (dirty conditions)	1 min	20°C	Bacteria	RTU
		1 min	20°C	Yeast	RTU
		5 min	20°C	Fungi	RTU
		15 min	20°C	Mycobacteria	RTU

Supporting tests:
Bactericidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 1 minute for the undiluted product with mechanical action and under dirty conditions.

EN 13727 (Phase 2, step 1) to support bactericidal claim. The undiluted product lncidin OxyFoam passed the test under clean conditions (0.3g/l albumin) and dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 15 seconds contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support bactericidal claim with mechanical action. The undiluted product lncidin OxyFoam passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 1 minute contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 1-minute for the undiluted product with mechanical action under dirty conditions.

EN 13624:2013 (Phase 2, step 1) to support yeasticidal claim. The undiluted lncidin OxyFoam passed the test under clean conditions (0.3g/l albumin) and dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 1-minute contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support yeasticidal claim with mechanical action. The undiluted product lncidin OxyFoam passed the test under dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 1 minute contact time and at 20°C. *Please see* [redacted].

Fungicidal Claim for disinfection of dirty non-porous hard surfaces sector at ambient temperature (20°C) with a contact time of 5 minutes for the undiluted product with mechanical action.

EN 13624:2013 (Phase 2, step 1) to support fungicidal claim. The undiluted product lncidin OxyFoam passed the test under clean conditions (0.3g/l albumin) and dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

[redacted]

Mycobactericidal Claim for disinfection of dirty non-porous hard surfaces sector at ambient temperature (20°C) with a contact time of 15 minutes for the undiluted product with mechanical action under dirty conditions.

EN 14348:2005 (Phase 2, step 1) to support mycobactericidal activity. The undiluted product lncidin OxyFoam passed the test under clean conditions (0.3g/l albumin) and dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 5 and 15 minutes contact time respectively and at 20°C. *Please see* [redacted].

[redacted]

Meta SPC 5-c includes the following products: Incidin Oxy Foam S ([redacted]) KitchenPro Oxy Foam S ([redacted]) and Klercide Sporicidal Enhanced Peroxide ([redacted]) as representative products for Meta SPC 1-5-c. The products are 1.5% (w/w) dilutions of the active substance hydrogen peroxide and it is used as a ready to use product.

Klercide Sporicidal Enhanced Peroxide is a hard surface disinfectant as Life Sciences Cleanroom biocide. A series of assays were conducted on Klercide Sporicidal Enhanced Peroxide to determine the bactericidal, fungicidal, yeasticidal, viricidal and sporicidal activity.

A series of assays were also conducted on Incidin OxyFoam S to determine the bactericidal, fungicidal, yeasticidal, viricidal, sporicidal and mycobactericidal activity.

Application methods include:

- Spraying using trigger sprayer and dry wipe
- Disinfection of floors by mopping using flat mop and bucket
- Wiping using cloth/wipe and bucket
- Mopping using mop and bucket

The product is a
PT2: Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) - disinfection of surfaces, materials and equipment in health care areas that are frequently touched by people and that are not frequently touched; Disinfection of surfaces, materials and equipment in in Life Sciences Cleanroom A - D and supporting environments (e.g. pharmaceutical industry); disinfection of small surfaces in small non-food areas (e.g. bathrooms)
PT4: Food and feed area (Disinfectants) – disinfection of small surfaces in institutional applications.

Summary of the label claims:

Group	Application method	Contact time	Temp.	Target organism	Concentration
5 (c)	Spraying (clean conditions)	5 min	20^0C	Bacteria	RTU
		5 min	20^0C	Yeasts	RTU
		5 min	20^0C	Fungi	RTU
		30 min	20^0C	Spores (Bacterial)	RTU
		30 min	20^0C	Viruses	RTU
	Spray & Wipe / mopping (dirty conditions)	1 min	20^0C	Bacteria	RTU
		1 min	20^0C	Yeasts	RTU
		5 min	20^0C	Fungi	RTU
		5 min	20°C	Mycobacteria	RTU
		60 min	20°C	Spores (Bacterial)	RTU

		30 min	20°C	Viruses	RTU
	Spray & Wipe /mopping (clean conditions)	30 min	20^0C	Spores (Bacterial)	RTU
		5 min	20°C	Spores (*C.dificile*)	RTU

Supporting tests:

Bactericidal Claim for disinfection of clean non-porous hard surfaces at ambient temperature with a contact time of 5 minutes for the undiluted liquid product format with non-mechanical action.

EN 1276 (Phase 2, step 1) to support bactericidal claim. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under clean conditions (0.3g/l albumin) at 1-minute contact time and at 20°C. *Please see* [redacted].

EN 13727 (Phase 2, step 1) to support bactericidal claim. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under clean (3g/l albumin) and dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 1-minute contact time and at 20°C. *Please see* [redacted].

EN 13697 (Phase 2, step 2) to support bactericidal claim. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under clean conditions (0.3g/l albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Bactericidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 1 minutes for the undiluted liquid product format with mechanical action.

EN 13727 (Phase 2, step 1) to support bactericidal claim. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under clean (3g/l albumin) and dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 1-minute contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support bactericidal claim with mechanical action. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under dirty conditions (3g/l albumin) at 1-minutes contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of clean non-porous hard surfaces at ambient temperature with a contact time of 5 minutes for the undiluted liquid product format with non-mechanical action.

EN 1650:2013 (Phase 2, step 1) to support yeasticidal claim. The undiluted Klercide Sporicidal Enhanced Peroxide passed the test under clean conditions (0.3 g/L bovine albumin) at 1-minute contact time and at 20°C. *Please see* [redacted].

EN 13624 (Phase 2, step 1) to support yeasticidal claim. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under clean (0.03 % albumin) and dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 1-minutes contact time and at 20°C. *Please see* [redacted].

EN 13697 (Phase 2, step 2) to support yeasticidal claim. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under clean conditions (0.03 % albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 1 minute for the undiluted liquid product format with mechanical action.

EN 13624 (Phase 2, step 1) to support yeasticidal claim. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 1-minutes contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support yeasticidal claim with mechanical action. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 1-minutes contact time and at 20°C. *Please see* [redacted].

Fungicidal Claim for disinfection of clean non-porous hard surfaces at ambient temperature with a contact time of 5 minutes for the undiluted liquid product format with non-mechanical action.

EN 1650:2013 (Phase 2, step 1) to support fungicidal claim. The undiluted Klercide Sporicidal Enhanced Peroxide passed the test under clean conditions (0.3 g/L bovine albumin) at 5 minute contact time and at 20°C. *Please see* [redacted].

EN 13624 (Phase 2, step 1) to support fungicidal claim. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under clean (0.03 % albumin) and dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

EN 13697 (Phase 2, step 2) to support fungicidal claim. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under clean conditions (0.03 % albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Fungicidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 5 minutes for the undiluted liquid product format with mechanical action.

EN 13624 (Phase 2, step 1) to support fungicidal claim. The undiluted product Klercide Sporicidal Enhanced Peroxide passed the test under clean (0.03 % albumin) and dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

[redacted]

Mycobactericidal Claim for disinfection of dirty non-porous hard surfaces sector at ambient temperature (20°C) with a contact time of 5 minutes for the undiluted product with mechanical action under dirty conditions.

EN 14348:2005 (Phase 2, step 1) to support mycobactericidal activity. The undiluted product lncidin OxyFoam S passed the test under clean conditions (0.03% bovine albumin) and dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 5 minutes contact time respectively and at 20°C. *Please see* [redacted].

[redacted]

Sporicidal Claim for disinfection of clean non-porous hard surfaces at ambient temperature with a contact time of 30 minutes for the undiluted product without mechanical action.

EN 13704:2002 (Phase 2, step 1) to support sporicidal claim. The undiluted Klercide Sporicidal Enhanced Peroxide product passed the test under clean conditions (0.03% bovine albumin) at 30 minutes contact time and at 20°C. *Please see* [redacted]

[redacted]

Sporicidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 60 minutes for the undiluted product with mechanical action.

EN 13704:2002 (Phase 2, step 1) to support sporicidal claim. The undiluted Klercide Sporicidal Enhanced Peroxide product passed the test under dirty conditions (0.3% bovine albumin+ 0.3 % sheep erythrocytes) at 60 minutes contact time and at 20°C. *Please see* [redacted].

[redacted]

Sporicidal Claim for disinfection of clean non-porous hard surfaces at ambient temperature (20°C) with a contact time of 30 minutes for the undiluted product with mechanical action.

EN 13704:2002 (Phase 2, step 1) to support sporicidal claim. The undiluted Incidin OxyFoam S passed the test under clean conditions (0.03% bovine albumin) at 30 minutes contact time and at 20°C. *Please see* [redacted]

Sporicidal (*C. difficile*) Claim for disinfection of clean non-porous hard surfaces at ambient temperature (20°C) with a contact time of 5 minutes for the undiluted product with mechanical action.

EN 13704:2002 (Phase 2, step 1) to support sporicidal (*C. difficile)* claim. The undiluted Incidin Oxyfoam S product passed the test under clean conditions (0.03% bovine albumin) at 3 minutes contact time and at 20°C. *Please see* [redacted].

Viricidal Claim for disinfection of clean non-porous hard surfaces at ambient temperature (20°C) with a contact time of 30 minutes for the undiluted product without mechanical action.

EN 14476 (Phase 2, step 1) to support viricidal activity against Adenovirus type 5 strain adenoid 75. The undiluted product Incidin Oxyfoam S passed the test under clean conditions (0.03% bovine albumin) at 30 seconds contact time and at 20°C. *Please see* [redacted]

EN 14476 (Phase 2, step 1) to support viricidal activity against Poliovirus type 1 strain LSc-2ab. The undiluted product Incidin Oxywipe S passed the test under clean conditions (0.03% bovine albumin) at 30 minutes contact time and at 20°C. *Please see* [redacted]

EN 14476 (Phase 2, step 1) to support viricidal activity against Murine norovirus. The undiluted product Incidin Oxywipe S passed the test under clean conditions (0.03% bovine albumin) at 15 minutes contact time and at 20°C. *Please see* [redacted]

Viricidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 30 minutes for the undiluted product without mechanical action.

EN 14476 (Phase 2, step 1) to support viricidal activity against Adenovirus type 5 strain adenoid 75. The undiluted product Incidin Oxywipe S passed the test under dirty conditions (3.0 g/l bovine albumin + 3.0g/l erythrocytes) at 30 seconds contact time and at 20°C. *Please see* [redacted]

EN 14476 (Phase 2, step 1) to support viricidal activity against Poliovirus type 1 strain LSc-2ab. The undiluted product Incidin Oxyfoam S passed the test under dirty conditions (3.0 g/l bovine albumin + 3.0g/l erythrocytes) at 30 minutes contact time and at 20°C. *Please see* [redacted]

EN 14476 (Phase 2, step 1) to support viricidal activity against Murine norovirus. The undiluted product Incidin OxyWipe S passed the test under dirty conditions (3.0 g/l bovine albumin + 3.0g/l erythrocytes) at 15 minutes contact time and at 20°C. *Please see* [redacted]

Meta SPC 6

OxyDes Rapid (liquid product) is the representative product for Meta SPC 1-6. It is a 2.0% (w/w) dilution of the active substance hydrogen peroxide which is used as a ready to use product. [redacted]. The product is intended to be used as hard surface disinfectant for disinfection of small surfaces in industry (e.g. dining areas, bathrooms) (PT2) and food and beverage industry (PT4). A series of assays were conducted on OxyDes Rapid to determine the bactericidal and yeasticidal activity. The claims are described below:

Application methods include spraying and wiping (spray onto surface and then use a dry wipe).
The products are:
PT2: Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) – Disinfection of small surfaces in industry (e.g. dining areas, bathrooms) by spraying using trigger sprayer and dry wipe
PT4: Food and feed area (Disinfectants) – Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe.

Summary of the label claims:

Application method	Contact time	Temp.	Target organism	Concentration
Spraying, mopping	5 min	20^0C	Bacteria	RTU

(dirty conditions)	5 min	20^0C	Yeasts	RTU
	5 min	10^0C	Bacteria	RTU
	5 min	10^0C	Yeasts	RTU
Spraying, mopping (clean conditions)	1 min	10^0C	Bacteria	RTU
	1 min	10^0C	Yeasts	RTU

Supporting tests:

Bactericidal Claim for disinfection of pre-cleaned non-porous hard surfaces at 10°C with a contact time of 1 minute for the undiluted product without mechanical action.

EN 1276 (Phase 2, step 1) to support bactericidal claim. The 80% diluted product OxyDes Rapid passed the test under clean conditions (0.3g/l albumin) at 30 seconds contact times and at 10°C. *Please see* [redacted]
EN 13697 (Phase 2, step 2) to support bactericidal claim. The undiluted product OxyDes Rapid passed the test under clean conditions (0.3 g/L bovine albumin and 8.5 g/l skimmed milk for tests with *P. aeruginosa*) at 30 seconds contact times and at 10°C. *Please see* [redacted]

Bactericidal Claim for disinfection of dirty non-porous hard surfaces at 10°C with a contact time of 5 minutes for the undiluted product without mechanical action.

EN 1276 (Phase 2, step 1) to support bactericidal claim. The 80% diluted product OxyDes Rapid passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 10 °C. *Please see* [redacted].
EN 13697 (Phase 2, step 2) to support bactericidal claim. The undiluted product OxyDes Rapid passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 10°C. *Please see* [redacted].

Bactericidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 5 minutes for the 50% diluted product without mechanical action.

EN 1276 (Phase 2, step 1) to support bactericidal claim. The 50% diluted product OxyDes Rapid passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].
EN 13697 (Phase 2, step 2) to support bactericidal claim. The 50% product OxyDes Rapid passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of pre-cleaned non-porous hard surfaces at 10°C with a contact time of 1 minute for the undiluted product without mechanical action.

EN 1650:2013 (Phase 2, step 1) to support yeasticidal claim. The 80% diluted product OxyDes Rapid passed the test under clean conditions (0.03% bovine albumin) at 30 seconds contact time and at 10°C. *Please see* [redacted].
EN 13697 (Phase 2, step 2) to support yeasticidal claim. The undiluted product OxyDes Rapid passed the test under clean conditions (0.3 g/L bovine albumin) at 30 seconds contact times and at 10°C. *Please see* [redacted]

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at 10°C with a contact time of 5 minutes for the undiluted product without mechanical action.

EN 1650:2013 (Phase 2, step 1) to support yeasticidal claim. The undiluted product OxyDes Rapid passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 10°C. *Please see* [redacted].
EN 13697 (Phase 2, step 2) to support yeasticidal claim. The 80% diluted product OxyDes Rapid passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes and 15 minutes contact time and at 10°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 5 minutes for the 80% product without mechanical action.

EN 1650:2013 (Phase 2, step 1) to support yeasticidal claim. The 50% diluted product OxyDes Rapid passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].
EN 13697 (Phase 2, step 2) to support yeasticidal claim. The 80% diluted product OxyDes Rapid passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Meta SPC 7
Meta 7-a: UltraSan Floor and Incidin Oxy Concentrate
Meta 7-b: Cidalsan Large Area, Incidin OxyConcentrate FF, KitchenPro Oxy Des Super Concentrate

CidalSan Large Area (soluble concentrate) is the representative product for Meta SPC 1-7-b. It is a 4.95% (w/w) dilution of the active substance hydrogen peroxide and it is intended to be diluted before use. Dilution rates are given below in the claims section. The product is intended to be used as

hard surface disinfectants with applications in PT 2 and PT 4. A series of assays were conducted on CidalSan Large Area to determine the bactericidal and yeasticidal activity. The application methods and claims are described below:
Application methods include:
- Spraying using trigger sprayer and dry wipe
- Mopping using mop and bucket
- Spraying with a wall mounted device

The products are:
PT2: Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) - Disinfection of surfaces, materials and equipment in health care areas for surfaces that are frequently touched by people and for surfaces that are not frequently touched by people; Disinfection of surfaces, materials and equipment in institutional applications.
PT4: Food and feed area (Disinfectants) – Disinfection of surfaces, materials and equipment in institutional applications.
The product claims for PT2 and PT4 uses can be found below.

Summary of the label claims:

Application method	Contact time	Temp.	Target organism	Concentration
Spraying, mopping (clean conditions)	5 min	20^0C	Bacteria	≥10%
	5 min	20^0C	Yeasts	≥10%
	15 min	20^0C	Bacteria	≥7.5%
Spraying (dirty conditions)	5 min	20^0C	Bacteria	≥10%
	5 min	20^0C	Yeasts	≥15 %
	15 min	20^0C	Bacteria	≥7.5%

Supporting tests:
Bactericidal Claim for disinfection of dirty non-porous hard surfaces at 20°C with a contact time of 5 minutes for the 10% diluted product.

EN 1276 (Phase 2, step 1) to support bactericidal claim. The 3% diluted product CidalSan Large Area passed the test under dirty conditions (3g/l albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

DGHM (2009) (Phase 2, step 1) to support bactericidal claim. The 3% diluted product CidalSan Large Area passed the test under dirty conditions (3 g/L bovine albumin + 3 g/l sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

DGHM (2009) (Phase 2, step 2) to support bactericidal claim. The 10% diluted product CidalSan Large Area passed the test under dirty conditions (3 g/L bovine albumin + 3 g/l sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

EN13697 (2015) (Phase 2, step 2) to support bactericidal claim. The 10% diluted product CidalSan Large Area passed the test under dirty conditions (3 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Bactericidal Claim for disinfection of dirty non-porous hard surfaces at 20°C with a contact time of 15 minutes for the 7.5% diluted product.

EN 1276 (Phase 2, step 1) to support bactericidal claim. The 2% diluted product CidalSan Large Area passed the test under dirty conditions (3g/l albumin) at 15 minutes contact time and at 20°C. *Please see* [redacted]

DGHM (2009) (Phase 2, step 2) to support bactericidal claim. The 7.5% diluted product CidalSan Large Area passed the test under dirty conditions (3 g/L bovine albumin + 3 g/l sheep erythrocytes) at 15 minute contact time and at 20°C. *Please see* [redacted].

Bactericidal Claim for disinfection of pre-cleaned non-porous hard surfaces at 20°C with a contact time of 5 minutes for the 10% diluted product.

EN 1276 (Phase 2, step 1) to support bactericidal claim. The 3% diluted product CidalSan Large Area passed the test under clean conditions (0.3g/l albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

DGHM (2009) (Phase 2, step 1) to support bactericidal claim. The 3% diluted product CidalSan Large Area passed the test under clean conditions (0.3 g/L bovine albumin + 0.3 g/l sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

DGHM (2009) (Phase 2, step 2) to support bactericidal claim. The 10% diluted product CidalSan Large Area passed the test under clean conditions (0.3 g/L bovine albumin + 0.3 g/l sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Bactericidal Claim for disinfection of pre-cleaned non-porous hard at 20°C with a contact time of 15 minutes for the 7.5% diluted product.

EN 1276 (Phase 2, step 1) to support bactericidal claim. The 2% diluted product CidalSan Large Area passed the test under clean conditions (0.3g/l albumin) at 15 minutes contact time and at 20°C. *Please see* [redacted];

DGHM (2009) (Phase 2, step 2) to support bactericidal claim. The 7.5% diluted product CidalSan Large Area passed the test under clean conditions (0.3 g/L bovine albumin + 0.3 g/l sheep erythrocytes) at 15 minutes contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of pre-cleaned non-porous hard surfaces at 20°C with a contact time of 5 minutes for the 10% diluted product.

DGHM (2009) (Phase 2, step 1) to support yeasticidal claim. The 10% diluted product CidalSan Large Area passed the test under clean conditions (0.3 g/L bovine albumin at 5 minutes contact time and at 20°C. *Please see* [redacted].

DGHM (2009) (Phase 2, step 2) to support yeasticidal claim. The 10% diluted product CidalSan Large Area passed the test under clean conditions (0.3 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at 20°C with a contact time of 5 minutes for the 15% diluted product.

EN 1650:2013 (Phase 2, step 1) to support yeasticidal claim. The 15% diluted product CidalSan Large Area passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

EN 13697 (Phase 2, step 2) to support yeasticidal claim. The 10% diluted product CidalSan Large Area passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

DGHM (2009) (Phase 2, step 1) to support yeasticidal claim. The 12.5% diluted product CidalSan Large Area passed the test under dirty conditions (3 g/L bovine albumin + 3 g/l sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

DGHM (2009) (Phase 2, step 2) to support yeasticidal claim. The 10% diluted product CidalSan Large Area passed the test under dirty conditions (3 g/L bovine albumin + 3 g/l sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Meta SPC 8

Incidin Oxywipe and Drysan Oxy Wipes

Incidin Oxywipe (wipe; non-woven, polyester 60%, Lyocell 40%) **and Drysan Oxy Wipes** (wipe; non-woven, 100% polypropylene) are the representative products for Meta SPC 8 a. They are 1% (w/w) dilutions of the active substance Hydrogen peroxide and are used as ready to use products. A series of assays were conducted on Drysan Oxy Wipes and Incidin Oxywipe to determine the bactericidal, fungicidal, yeasticidal, Viricidal and mycobactericidal activity.
Application method is wiping.

The products are:
PT2: Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) - Disinfection of surfaces, materials and equipment which are used in non-direct contact with food or feeding stuff in health care areas for surfaces that are not frequently touched by people; disinfection of surfaces in industry (e.g. dining areas, bathrooms) by wiping using impregnated RTU wipes.
PT4: Food and feed area (Disinfectants) – Disinfection of small surfaces in food processing plant by wiping using impregnated RTU wipes.

Summary of the label claims:

Application method	Contact time	Temp.	Target organism	Concentration
Wiping (Dirty conditions)	5 min	10^0C	Bacteria*	RTU
	5 min	10^0C	Yeasts*	RTU
	2 min	20^0C	Bacteria*	RTU
	5 min	20^0C	Yeasts*	RTU
	15 min	20^0C	Yeasts (in health care) *	RTU
	15 min	20^0C	Fungi	RTU
	60 min	20^0C	Mycobacteria	RTU

*Bacteria and yeast claims:
Healthcare uses – Use in SPC: 8.3
- 5 minutes for bacteria and yeasts at 10^0C under dirty conditions
- 15 minutes for bacteria and yeasts at 20^0C under dirty conditions

Non healthcare uses (Industry and Food and Beverage industry) – Uses in SPC: 8.1, 8.2

- 5 minutes for bacteria and yeasts at 10^0C under dirty conditions
- 2 minutes for bacteria and 5 minutes for yeasts at 20^0C under dirty conditions

Supporting tests:

Bactericidal Claim for disinfection of dirty non-porous hard surfaces at 10°C with a contact time of 5 minutes for the undiluted product with mechanical action.

EN 13727 (Phase 2, step 1) to support bactericidal claim. The undiluted product [redacted] *(*[redacted]*)* passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 10 °C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support bactericidal claim with mechanical action. The undiluted product DrySan Oxy Wipes passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes at 5 minutes contact time and at 10°C. *Please see* [redacted].

Bactericidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 2-minutes for the undiluted product with mechanical action.

EN 13727 (Phase 2, step 1) to support bactericidal claim. The 97% diluted product Incidin OxyWipe passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 1 minute contact time and at 20 °C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support bactericidal claim with mechanical action. The undiluted product IncidinOxy Wipes passed the test under dirty conditions (3.0 % albumin + 3.0 % sheep erythrocytes at 2 minute contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at 10°C with a contact time of 5 minutes for the undiluted product with mechanical action under dirty conditions.

EN 1650: 2008 (Phase 2, step 1) to support yeasticidal claim. The 50% diluted product DrySan Oxy Wipes passed the test under dirty conditions (0.3% bovine albumin) at 5 minutes contact time and at 10°C. *Please see* [redacted].

EN16615 (Phase 2, step 2) to support yeasticidal claim with mechanical action. The undiluted product DrySan Oxy Wipes passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes at 5 minutes contact time and at 10°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 5 minutes for the undiluted product with mechanical action under dirty conditions.

EN 1650: 2008 (Phase 2, step 1) to support yeasticidal claim. The 50% diluted product DrySan Oxy Wipes passed the test under dirty conditions (0.3% bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support yeasticidal claim with mechanical action. The undiluted product Incidin Oxy Wipes passed the test under dirty conditions (3.0 % albumin + 3.0 % sheep erythrocytes at 5 minutes contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 15 minutes for the undiluted product with mechanical action under dirty conditions.

EN 13624:2013 (Phase 2, step 1) to support yeasticidal claim. The undiluted lncidin OxyWipe passed the test under dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 15 minutes contact time and at 20°C. *Please see* [redacted].

EN16615 (Phase 2, step 2) to support yeasticidal claim with mechanical action. The undiluted product lncidin OxyWipe passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes at 5 minutes contact time and at 20°C. *Please see* [redacted].

Fungicidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 15 minutes for the undiluted product with mechanical action.

EN 13624:2013 (Phase 2, step 1) to support fungicidal claim. The undiluted product lncidin OxyWipe passed the test under dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 15-minutes contact time and at 20°C. *Please see* [redacted].

Mycobactericidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 60 minutes for the undiluted product with mechanical action.

EN 14348:2005 (Phase 2, step 1) to support mycobactericidal activity. The undiluted product lncidin OxyWipe passed the test under clean (0.03% bovine albumin) and dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 30 minutes contact time and at 20°C. *Please see* [redacted].

Meta SPC 9

Meta 9-a: KitchenPro Oxy Des Concentrate and Incidin OxyPro
Meta 9-b: Maxx Oxy Des 2 and Oasis Pro Oxy Des

Maxx Oxy Des 2 (soluble concentrate) is the representative product for Meta SPC 9 b. It is a 7% (w/w) dilution of the active substance hydrogen peroxide and it is intended to be diluted before use. Dilution rates are defined by the claims listed below. A series of assays were conducted on Maxx Oxy Des 2 [redacted] to determine the bactericidal, yeasticidal, fungicidal and viricidal activity. The application methods and claims are described below:
Application methods include:

- Wiping using cloth/wipe and bucket
- Mopping using mop and bucket
- Spraying using trigger sprayer and dry wipe
- Spraying with a wall mounted device

The products are:
PT2: Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) - Disinfection of surfaces, materials and equipment in health care areas for surfaces that are frequently touched by people and for surfaces that are not frequently touched by people; Disinfection of surfaces, materials and equipment in institutional applications;
PT4: Food and feed area (Disinfectants) – Disinfection of surfaces, materials and equipment in institutional applications.

The product claims for PT2 and PT4 uses can be found below.

Summary of the label claims:

Application method	Contact time	Temp.	Target organism	Dilution
Spraying, wiping, mopping with	5 min	20^0C	Bacteria	5 %
	5 min	20^0C	Yeasts	3 %
	5 min	20^0C	Fungi	4 %

mechanical action (medical dirty conditions)	50 min	20^0C	Viruses	5%
Spraying, (clean conditions)	5 min	20^0C	Bacteria	1.5 %
	15min	20°C	Yeasts	1.5%
Spraying, (dirty conditions)	5 min	20^0C	Bacteria	3 %
	5 min	20^0C	Yeasts	3 %

Supporting tests:

Bactericidal Claim for disinfection of dirty non-porous hard surfaces at 20°C with a contact time of 5 minutes with mechanical action for the 5% diluted product.

EN 13727: 2015 (Phase 2, step 1) to support bactericidal claim. The 2% diluted product Maxx Oxy Des 2 passed the test under dirty conditions (3.0g/L bovine serum albumin + 3.0g/L erythrocytes at 1-minute contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support bactericidal claim with mechanical action. The 5% diluted product Maxx Oxy Des 2 passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Bactericidal Claim for disinfection of dirty non-porous hard surfaces at 20°C with a contact time of 5 minutes with mechanical action for the 3% diluted product.

EN 13727: 2012+A2:2015 (Phase 2, step 1) to support bactericidal claim. The 2% diluted product Maxx Oxy Des 2 passed the test under dirty conditions (0.3g/L bovine serum albumin + 0.3g/L erythrocytes) at 5-minute contact time and at 20°C. *Please see* [redacted].

EN 13697 (Phase 2, step 2) to support bactericidal claim without mechanical action. The 3% diluted product Maxx Oxy Des 2 passed the test under dirty conditions (0.3 % albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Bactericidal Claim for disinfection of pre-cleaned non-porous hard surfaces at 20°C with a contact time of 5 minutes without mechanical action for the 1.5% diluted product.

EN13727:2015 (Phase 2, step 1) to support bactericidal claim. The 1% diluted product Maxx Oxy Des 2 ( ) passed the test under dirty conditions (0.3g/L bovine serum albumin + 0.3g/L erythrocytes) at 5-minute contact time and at 20°C. *Please see* .

EN 13697 (Phase 2, step 2) to support bactericidal claim without mechanical action. The 1.5% diluted product Maxx Oxy Des 2 passed the test under clean conditions (0.3g/L BSA and 8.5g/L skimmed milk) at 5 minutes contact time and at 20°C. *Please see* .

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at 20°C with a contact time of 5 minutes with mechanical action for the 3% diluted product.

EN 13624: 2013 (Phase 2, step 1) to support yeasticidal claim. The 2% diluted product passed the test under dirty conditions (3.0g/L bovine serum albumin + 3.0g/L erythrocytes) at 5 minutes contact time and at 20°C. *Please see* .

EN 16615 (Phase 2, step 2) to support yeasticidal claim with mechanical action. The 3% diluted product Maxx Oxy Des 2 passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* .

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at 20°C with a contact time of 5 minutes without mechanical action for the 3% diluted product.

EN 1650:2013 (Phase 2, step 1) to support yeasticidal claim. The 3% diluted product passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* .

EN 13624: 2013 (Phase 2, step 1) to support yeasticidal claim. The 2% diluted product passed the test under dirty conditions (3.0g/L bovine serum albumin + 3.0g/L erythrocytes (dirty conditions) at 5 minutes contact time and at 20°C. *Please see* .

EN 13697 (Phase 2, step 2) to support yeasticidal claim. The 3% diluted passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* .

Yeasticidal Claim for disinfection of pre-cleaned non-porous hard surfaces at 20°C with a contact time of 15 minutes without mechanical action for the 2.5% diluted product.

EN 13697 (Phase 2, step 2) to support yeasticidal claim without mechanical action. The 2% diluted product Maxx Oxy Des 2 passed the test under clean conditions (0.3g/L BSA and 8.5g/L skimmed milk) at 15 minutes contact time and at 20°C. *Please see* [redacted].

Fungicidal Claim for disinfection of dirty non-porous hard surfaces at 20°C with a contact time of 5 minutes with mechanical action for the 4% diluted product.

EN 13624: 2013 (Phase 2, step 1) to support fungicidal claim. The 4% diluted product Maxx Oxy Des 2 passed the test under dirty conditions (3.0g/L bovine serum albumin + 3.0g/L erythrocytes at 5 minutes contact time and at 20°C. *Please see* [redacted].

Viricidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 50 minutes for the 5% diluted product.

EN 14476 (Phase 2, step 1) to support viricidal activity. The 4% diluted product Maxx Oxy Des 2 passed the test under dirty conditions (3.0g/L bovine serum albumin + 3.0g/L erythrocytes) after 5 minutes contact time and at 20°C. Test was conducted against Adenovirus type 5 strain adenoid 75 (ATCC VR-5). *Please see* [redacted].

EN 14476 (Phase 2, step 1) to support viricidal activity. The 5% diluted product Maxx Oxy Des 2 passed the test under dirty conditions (3.0g/L bovine serum albumin + 3.0g/L erythrocytes) after 5 minutes contact time and at 20°C. Test was conducted against Poliovirus Type 1 strain LSc-2ab. *Please see* [redacted].

EN 14476 (Phase 2, step 1) to support viricidal activity. The 5% diluted product Maxx Oxy Des 2 passed the test under dirty conditions (3.0g/L bovine serum albumin + 3.0g/L erythrocytes) after 50 minutes contact time and at 20°C. Test was conducted against Murine norovirus strain S99 Berlin. *Please see* [redacted].

Meta SPC 10

Manosan Oxy (Meta SPC 10; Water soluble gel for PT 1) containing 1.4% active substance concentration is the representative product for Meta SPC 10 Application method is direct application onto skin.

The product is:

PT1: Human hygiene (Disinfectants) - Antimicrobial hand soap, intended only as hygienic hand wash.

Summary of the label claims:

Application method	Contact time	Temp.	Target organism	Concentration
Hand soap (dirty conditions)	60 sec	20^0C	Bacteria	RTU
	60 sec	20^0C	Yeasts	RTU

Supporting tests:

Bactericidal Claim for PT 1 handwash disinfection of dirty hands at 20°C with a contact time of 30 seconds for the undiluted fresh product and with a contact time of 60 seconds for the undiluted aged product.

EN 13727:20012+A2:2015 (Phase 2, step 1) to support handwash bactericidal claim. The 10% diluted product Manosan Oxy passed the test under dirty conditions (0.3% albumin + 0.3% sheep erythrocytes) at 30 seconds contact time and at 20°C. *Please see* [redacted].

EN 1499:2013 (Phase 2, step 2) to support handwash bactericidal claim. The undiluted product Manosan Oxy passed the test at 30 seconds contact time and at 20°C. *Please see* [redacted].

Bactericidal Claim for PT 1 handwash disinfection of dirty hands at 20°C with a contact time of 60 seconds for the 20% dilution [redacted] product.

EN 13727:20012+A2:2015 (Phase 2, step 1) to support handwash bactericidal claim. The product Manosan Oxy ([redacted]) passed the test under dirty conditions (3.0 g/l bovine serum albumin + 3.0 g/l erythrocytes) at 60 seconds contact time and at 20°C. *Please see* [redacted].

EN 13727:20012+A2:2015 (Phase 2, step 1) to support handwash bactericidal claim. The 20% diluted product Manosan Oxy ([redacted]) passed the test under dirty conditions (0.3% albumin + 0.3% sheep erythrocytes) at 30 seconds contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for PT 1 disinfection of dirty hands at 20° with a contact time of 30 seconds for the 25% diluted fresh product and at 80% dilution for [redacted] product.

EN 13624:2013 (Phase 2, step 1) to support yeasticidal claim. The 25% diluted product Manosan Oxy passed the test under dirty conditions (3g/L albumin + 3g/L erythrocytes) at 30 seconds contact time and at 20°C. *Please see* [redacted].

EN 13624:2013 (Phase 2, step 1) to support yeasticidal claim. The 80% diluted product Manosan Oxy ([redacted]) passed the test under dirty conditions (3g/L albumin + 3g/L erythrocytes) at 30 seconds contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for PT1 disinfection 1 of dirty hands at 20° with a contact time of 60 seconds for the 50% dilution for [redacted] product.

EN 13624:2013 (Phase 2, step 1) to support yeasticidal claim. The 50% diluted product Manosan Oxy ([redacted]) passed the test under dirty conditions (3g/L albumin + 3g/L erythrocytes) at 60 seconds contact time and at 20°C. *Please see* [redacted].

Meta SPC 11

Meta SPC 11-c: Klerwipe Sporicidal Enhanced Peroxide (wipes)

Meta SPC 1-11-c includes the product Klerwipe Sporicidal Enhanced Peroxide (wipes, 55 %Polyester / 45% Cellulose blend). The products is a 1.5% (w/w) dilution of the active substance hydrogen peroxide and it is used as a ready to use product. A series of assays were conducted on [redacted] and Klerwipe Sporicidal Enhanced Peroxide to determine the bactericidal, fungicidal, yeasticidal and sporicidal activity.

Application method is wiping and mopping using impregnated RTU wipes.

The products are:
PT2: Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) - Disinfection of surfaces, materials and equipment in Life Sciences Cleanroom and supporting environments (e.g. pharmaceutical industry);

Summary of the label claims:

Group	Application method	Contact time	Temp.	Target organism	Concentration
11 (c)	Wiping; Mopping (Clean conditions)	5 min	20°C	Spores (*C.dificile*)	RTU
		30 min	20°C	Spores (Bacterial)	RTU
	Wiping; Mopping (Dirty conditions)	5 min	20°C	Bacteria	RTU
		5 min	20°C	Yeast	RTU
		5 min	20°C	Fungi	RTU
		5 min	20°C	Mycobacteria	RTU
		30 min	20°C	Viruses	RTU
		60 min	20°C	Spores (Bacterial)	RTU

Supporting tests:

Bactericidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 5 minutes for the undiluted product with mechanical action.

EN 1276 (Phase 2, step 1) to support bactericidal claim. The undiluted product [redacted] ([redacted]) passed the test under clean conditions (0.3g/l albumin) and dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 1 minute contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support bactericidal claim with mechanical action. The undiluted product Klerwipe Sporicidal Enhanced Peroxide passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 5 minutes for the undiluted product with mechanical action.

EN 1650 (Phase 2, step 1) to support yeasticidal claim. The undiluted product [redacted] ([redacted]) passed the test under clean conditions (0.3g/l albumin) and dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 1 minute contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support yeasticidal claim with mechanical action. The undiluted product Klerwipe Sporicidal Enhanced Peroxide passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

Fungicidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 5 minutes for the undiluted product with mechanical action.

EN 1650 (Phase 2, step 1) to support fungicidal claim. The undiluted product [redacted] ([redacted]) passed the test under clean conditions (0.3g/l albumin) and dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

[redacted]

Mycobactericidal Claim for disinfection of dirty non-porous hard surfaces sector at ambient temperature (20°C) with a contact time of 5 minutes for the undiluted product with mechanical action under dirty conditions.

EN 14348:2005 (Phase 2, step 1) to support mycobactericidal activity. The undiluted product [redacted] ([redacted]) passed the test under clean conditions (0.03% bovine albumin) and dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 5 minutes contact time respectively and at 20°C. *Please see* [redacted].

Viricidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 30 minutes for the undiluted product without mechanical action.

EN 14476 (Phase 2, step 1) to support viricidal activity against Adenovirus type 5 strain adenoid 75. The undiluted product [redacted] ([redacted]) passed the test under

dirty conditions (3.0 g/l bovine albumin + 3.0g/l erythrocytes) at 30 seconds contact time and at 20°C. *Please see* [redacted].

EN 14476 (Phase 2, step 1) to support viricidal activity against Poliovirus type 1 strain LSc-2ab. The undiluted [redacted] ([redacted]) passed the test under dirty conditions (3.0 g/l bovine albumin + 3.0g/l erythrocytes) at 30 minutes contact time and at 20°C. *Please see* [redacted].

EN 14476 (Phase 2, step 1) to support viricidal activity against Murine norovirus. The undiluted product [redacted] ([redacted]) passed the test under dirty conditions (3.0 g/l bovine albumin + 3.0g/l erythrocytes) at 15 minutes contact time and at 20°C. *Please see* [redacted].

Sporicidal Claim for disinfection of clean non-porous hard surfaces at ambient temperature with a contact time of 30 minutes for the undiluted product with mechanical action.

EN 13704:2002 (Phase 2, step 1) to support sporicidal claim. The undiluted product [redacted] ([redacted]) passed the test under clean conditions (0.3g/l albumin) at 30 minutes contact time at 20°C. *Please see* [redacted].

[redacted]

Sporicidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature with a contact time of 60 minutes for the undiluted product with mechanical action.

EN 13704:2002 (Phase 2, step 1) to support sporicidal claim. The undiluted product [redacted] ([redacted]) passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 60 minutes contact time at 20°C. *Please see* [redacted].

[redacted]

[redacted]

Meta 11-d: Incidin OxyWipe S, KitchenPro Oxy Wipes S

Incidin OxyWipe S (Wipe; 60% Polyester, 40% Lycell) is the representative product for Meta SPC 1-11-d. The product is a 1.5% (w/w) dilution of the active substance hydrogen peroxide and it is used as a ready to use product. A series of assays were conducted on Incidin OxyWipe S to determine the bactericidal, fungicidal, yeasticidal, Viricidal, sporicidal and mycobactericidal activity.
Application method is wiping using impregnated RTU wipes.

The products are:
PT2: Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) - Disinfection of surfaces, materials and equipment in health care areas on surfaces that are not frequently touched by people; Disinfection of surfaces, materials and equipment in institutional application.
PT4: Food and feed area (Disinfectants) – Disinfection of surfaces, materials and equipment in institutional application.

Summary of the claims for products in PT2 and PT4 uses applied by professional users:

Group	Application method	Contact time	Temp.	Target organism	Concentration
11 (d)	Wiping (Clean conditions)	30 min	20°C	Mycobacteria	RTU
		30 min	20°C	Spores (Bacterial)	RTU
		15 min	20°C	Spores (C. difficile)	RTU
		30 min	20°C	Viruses	RTU
	Wiping (Dirty conditions)	2 min	20°C	Bacteria	RTU
		15 min	20°C	Yeast	RTU

		30 min	20°C	Fungi	RTU
		30 min	20°C	Mycobacteria	RTU
		30 min	20°C	Viruses	RTU

Supporting tests:

Bactericidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 2 minute for the undiluted product with mechanical action.

EN 13727 (Phase 2, step 1) to support bactericidal claim. The undiluted product lncidin OxyWipe S passed the test under clean (0.03% albumin) and dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 2 minutes contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support bactericidal claim with mechanical action. The undiluted product lncidin OxyWipe S passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 2 min contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 15 minutes for the undiluted product with mechanical action.

EN 13624:2013 (Phase 2, step 1) to support yeasticidal claim. The undiluted lncidin OxyWipe S passed the test under clean (0.03% bovine albumin) at 5 minutes contact time and under dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 15 minutes contact time respectively and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support yeasticidal claim with mechanical action. The undiluted product lncidin OxyWipe S passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 1 min contact time and at 20°C. *Please see* [redacted].

Fungicidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 30 minutes for the undiluted product with mechanical action.

EN 13624:2013 (Phase 2, step 1) to support fungicidal claim. The undiluted lncidin OxyWipe S passed the test under clean conditions (0.03% bovine albumin) and dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 30 minutes contact time and at 20°C. *Please see* [redacted].

[redacted]

Mycobactericidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 30 minutes for the undiluted product with mechanical action.

EN 14348:2005 (Phase 2, step 1) to support mycobactericidal activity. The undiluted product lncidin OxyWipe S passed the test under clean conditions (0.03% bovine albumin) and dirty conditions (3.0 g/L bovine albumin + 3.0 g/l erythrocytes) at 30 minutes contact time and at 20°C. *Please see* [redacted].

[redacted]

Sporicidal Claim for disinfection of pre-cleaned non-porous hard surfaces of the health care and institutional sector at ambient temperature (20°C) with a contact time of 30 minutes for the undiluted product with mechanical action.

EN 13704:2002 (Phase 2, step 1) to support sporicidal claim. The undiluted Incidin OxyWipe S product passed the test under clean conditions (0.03% bovine albumin) at 30 minutes contact time and at 20°C. *Please see* [redacted].

[redacted]

Viricidal Claim for disinfection of clean non-porous hard surfaces at ambient temperature (20°C) with a contact time of 30 minutes for the undiluted product with mechanical action.

EN 14476 (Phase 2, step 1) to support viricidal activity against Adenovirus type 5 strain adenoid 75. The undiluted product Incidin Oxywipe S passed the test under clean conditions (0.03% bovine albumin) at 30 seconds contact time and at 20°C. *Please see* [redacted].

EN 14476 (Phase 2, step 1) to support viricidal activity against Poliovirus type 1 strain LSc-2ab. The undiluted product Incidin Oxywipe S passed the test under clean conditions (0.03% bovine albumin) at 30 minutes contact time and at 20°C. *Please see* [redacted].

EN 14476 (Phase 2, step 1) to support viricidal activity against Murine norovirus. The undiluted product Incidin Oxywipe S passed the test under clean conditions (0.03% bovine albumin) at 15 minutes contact time and at 20°C. *Please see* [redacted].

Viricidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 30 minutes for the undiluted product with mechanical action.

EN 14476 (Phase 2, step 1) to support viricidal activity against Adenovirus type 5 strain adenoid 75. The undiluted product Incidin Oxywipe S passed the test under dirty conditions (0.03% bovine albumin + 0.3% erythrocytes) at 30 seconds contact time and at 20°C. *Please see* [redacted].

EN 14476 (Phase 2, step 1) to support viricidal activity against Poliovirus type 1 strain LSc-2ab. The undiluted [redacted] ([redacted]) passed the test under dirty conditions (0.03% bovine albumin + 0.3% erythrocytes) at 30 minutes contact time and at 20°C. *Please see* [redacted].

EN 14476 (Phase 2, step 1) to support viricidal activity against Murine norovirus. The undiluted product Incidin Oxywipe S passed the test under dirty conditions (0.3% bovine albumin + 0.3% erythrocytes) at 15 minutes contact time and at 20°C. *Please see* [redacted].

Meta SPC 12

OxyDes Maxi Wipes (wipes; non-woven, polypropylene 100%) are the representative products for Meta SPC 1-12. The product is a 2% (w/w) dilution of the active substance hydrogen peroxide and is used as ready to use product. A series of assays were conducted on OxyDes Maxi Wipes and [redacted] to determine the bactericidal and yeasticidal activity. The claims are described below:
Application method is wiping.

The product is:
PT2: Disinfectants and algaecides not intended for direct application to humans or animals (Disinfectants) - Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by wiping using impregnated RTU wipes.
PT4: Food and feed area (Disinfectants) – Disinfection of small surfaces in food processing plant by wiping using impregnated RTU wipes.
Summary of the label claims:

Application method	Contact time	Temp.	Target organism	Concentration
Wiping (Dirty conditions)	5 min	10^0C	Bacteria	RTU
	5 min	10^0C	Yeasts	RTU
	5 min	20^0C	Bacteria	RTU
	5 min	20^0C	Yeasts	RTU

Supporting tests:
Bactericidal Claim for disinfection of dirty non-porous hard surfaces at 10°C with a contact time of 5 minutes for the undiluted product with mechanical action.

EN 1276 (Phase 2, step 1) to support bactericidal claim. The 80% diluted product [redacted] passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 10 °C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support bactericidal claim with mechanical action. The undiluted product OxyDes Maxi Wipes passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 10°C. *Please see* [redacted].

Bactericidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time 5-minute for the undiluted product with mechanical action.

EN 1276 (Phase 2, step 1) to support bactericidal claim. The 50% diluted product [redacted] passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support bactericidal claim with mechanical action. The undiluted product OxyDes Maxi Wipes passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5-minute contact time and at 20°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at 10°C with a contact 5 minutes for the undiluted product with mechanical action.

EN 1650:2013 (Phase 2, step 1) to support yeasticidal claim. The undiluted product [redacted] passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 10°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support yeasticidal claim with mechanical action. The undiluted product OxyDes Maxi Wipes passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 10°C. *Please see* [redacted].

Yeasticidal Claim for disinfection of dirty non-porous hard surfaces at ambient temperature (20°C) with a contact time of 5 minutes or the undiluted product with mechanical action.

EN 1650:2013 (Phase 2, step 1) to support yeasticidal claim. The 50% diluted product [redacted] passed the test under dirty conditions (3.0 g/L bovine albumin) at 5 minutes contact time and at 20°C. *Please see* [redacted].

EN 16615 (Phase 2, step 2) to support yeasticidal claim with mechanical action. The undiluted product OxyDes Maxi Wipes passed the test under dirty conditions (0.3 % albumin + 0.3 % sheep erythrocytes) at 5 minutes contact time and at 20°C. *Please see* [redacted].

2.2.5.6 Occurrence of resistance and resistance management

[redacted]

[redacted]

2.2.5.7 Known limitations

None

2.2.5.8 Evaluation of the label claims

See earlier discussions on conclusions of efficacy of the Meta groups.

2.2.5.9 Relevant information if the product is intended to be authorised for use with other biocidal product(s)

These products must not be used with other biocidal products.

2.2.6 Risk assessment for human health

2.2.6.1 Assessment of effects on Human Health

Introductory remark

In general, but with some case-by-case flexibility, the following approach for the C&L of biocidal products was taken: If there is a harmonised C&L for an active substance or a co-formulant, this classification will be used to derive the classification of the mixture. If there is no harmonised C&L available for a certain active substance or co-formulant, the most appropriate information on the classification will be used.

[redacted]

Skin corrosion and irritation

For Meta-SPC 1, 2, 3, 4, 6, 7, 8, 9, 10 and 12 no in vitro, in vivo or human data are available. Under Regulation (EC) No 1272/2008 (CLP), in the absence of data, preparations may be classified for skin irritation/corrosion hazards by calculation in accordance with section 3.2.3.3.1 of the CLP. It is assumed that the relevant corrosive and irritating ingredients of a mixture are those which are present in concentrations of 1% (w/w for solids, liquids, dusts, mists and vapours and v/v for gases) or greater, unless there is a presumption (e.g., in the case of corrosive ingredients) that an ingredient present at a concentration of less than 1% can still be relevant for classifying the mixture for skin irritation/corrosion. The principle of additivity is applied. It is therefore considered that additional animal studies are not required in order to avoid unnecessary suffering of animals.

[redacted]

[redacted]

Conclusion used in Risk Assessment – Skin corrosion and irritation	
Value/conclusion	Products of **Meta-SPC 1, Meta-SPC 2, Meta-SPC 4**, **Meta-SPC 5**, **Meta-SPC 6**, **Meta-SPC 8, Meta-SPC 10**, **Meta-SPC 11** and **Meta-SPC 12** are not classified
Justification for the value/conclusion	The active substance Hydrogen peroxide is classified as Skin Corr. 1A; H314 with the specific concentration limit (SCL) C ≥ 70 % and as Skin Corr. 1B; H314 with the SCL 50 % ≤ C < 70 %. In addition, hydrogen peroxide is classified as Skin Irrit. 2; H315 with the SCL 35 % ≤ C < 50 %. The products in **Meta-SPC 1** contain hydrogen peroxide up to 6.6 %. No other ingredients classified as corrosive or irritating to skin are present. No classification of products is justified. The products **Meta-SPC 2** (also covering **Meta-SPC 8** due to identical composition) contain hydrogen peroxide in the range of 1 – 1 %. Other components of the products classified for skin corrosion and skin irritation are present below the generic cut-off value of 1 % and can thus be disregarded according to Regulation No 1272/2008 Annex I, table 1.1. Products do not warrant classification with respect to skin effects. The products **Meta-SPC 4** (also covering **Meta-SPC 10**) contain hydrogen peroxide in the range of 1.4 - 1.61 %. In addition, two other components of the products are classified for skin irritation and are present above the generic cut-off value of 1 %, namely: • Sodium lauryl sulfate (max. conc. 3.88 %); H315, Skin Irrit. 2 with GCL ≥ 10 % according to table 3.2.3. of CLP is assigned • Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, max. conc. 1.12 %); H315, Skin Irrit. 2 with GCL ≥ 10 % according to Table 3.2.3. of CLP is assigned

	According to CLP, the following formula is used for classification of mixtures in relation to skin irritation: (%hydrogen peroxide/SCL) + (%sodium lauryl sulfate/GCL) + (%sulfuric acid, mono-C12-14-alkyl esters, ammonium salts/GCL) = (1.61/35) + (3.88/10) + (1.12/10) = 0.55 which is < 1, thus the mixture is not classified for skin irritation. No classification of products is justified. The products **Meta-SPC 5 (b)** contain hydrogen peroxide in the range of 1.5 – 1.5 %. In addition, two other components of the products are classified for skin corrosion and skin irritation. Other components of the products classified for skin corrosion and skin irritation are present below the generic cut-off value of 1 % and can thus be disregarded according to Regulation No 1272/2008 Annex I, table 1.1. Products do not warrant classification with respect to skin effects. The products **Meta-SPC 5 (c)** contain hydrogen peroxide in the range of 1.5 – 1.5 %. In addition, another component of the products is classified for skin corrosion and is present above the generic cut-off value of 1 %, namely: [redacted] A [redacted] study is available [redacted] showing no potential for skin irritation. [redacted] Thus, it can be concluded that products of Meta-SPC 5 do not warrant classification with respect to skin effects. [redacted] The products **Meta-SPC 6** (also covering Meta-SPC 12) contain hydrogen peroxide in the range of 2 – 2.3 %. In addition, another component of the products is classified for skin corrosion and skin irritation. Other components of the products classified for skin corrosion and skin irritation are present below the generic cut-off value of 1 % and can thus be disregarded according to Regulation No 1272/2008 Annex I, table 1.1. Products do not warrant classification with respect to skin effects. The products **Meta-SPC 11 (c)** and **(d)** contain hydrogen peroxide in the range of 1.5 – 1.5 %. In addition, another component of the products is classified for skin corrosion and is present above the generic cut-off value of 1 %, namely: [redacted]

	A [redacted] study is available [redacted] showing no potential for skin irritation. [redacted]. Likewise, it can be concluded that products of mSPC11 do not warrant classification with respect to skin effects. No classification of products is justified. [redacted]
Classification of the product according to CLP and DSD	Based on the classification of the components, the products of **Meta-SPC 1, Meta-SPC 2, Meta-SPC 4, Meta-SPC 5, Meta-SPC 6, Meta-SPC 8, Meta-SPC 10, Meta-SPC 11** and **Meta-SPC 12** do not require classification with respect to skin effects in accordance with CLP.

Value/conclusion	Products of **Meta-SPC 3** are classified as Skin Irrit. Cat 2; H315
Justification for the value/conclusion	The active substance hydrogen peroxide is classified as Skin Corr. 1A; H314 with the specific concentration limit (SCL) C ≥ 70 % and as Skin Corr. 1B; H314 with the SCL 50 % ≤ C < 70 %. In addition, hydrogen peroxide is classified as Skin Irrit. 2; H315 with the SCL 35 % ≤ C < 50 %. The products **Meta-SPC 3** contain hydrogen peroxide in the range of 35-36.75 % being the only component of the formulation that is classified for skin corrosion or irritation. As the maximum concentration of hydrogen peroxide falls within the SCL for skin irritation, the products are classified as Skin Irrit. Cat. 2; H315.
Classification of the product according to CLP	Based on the classification of the components, the products of **Meta-SPC 3** are classified as Skin Irrit. Cat. 2; H315 in accordance with CLP.

Value/conclusion	Products of **Meta-SPC 7** are classified as Skin Corr. Cat. 1; H314. Products of **Meta-SPC 9** are classified as Skin Corr. Cat. 1B; H314.
Justification for the value/conclusion	The active substance hydrogen peroxide is classified as Skin Corr. 1A; H314 with the specific concentration limit (SCL) C ≥ 70 % and as Skin Corr. 1B; H314 with the SCL 50 % ≤ C < 70 %. In addition, hydrogen peroxide is classified as Skin Irrit. 2; H315 with the SCL 35 % ≤ C <50 %. The products **Meta-SPC 7** contain hydrogen peroxide in the range of 4.95-5.45 %. In addition, one component of the products is classified for skin irritation and is present above the generic cut-off value of 1 %, namely, • Mixture of alkyl ether carboxylic acids (max. conc. 3.65 %); H315, Skin Irrit. 2 with GCL ≥ 10 % according to Table 3.2.3. of CLP is assigned According to CLP, the following formula is used for classification of mixtures in relation to skin irritation:

	(%hydrogen peroxide/SCL) + (%mixture of alkyl ether carboxylic acids/GCL) = (5.45/35) + (3.65/10) = 0.52 which is < 1, thus the mixture is not classified for skin irritation. However, the products of Meta-SPC 7 have a very low pH<2 (pure test item). According to the Guidance on the Application of the CLP Criteria (Version 5.0, July 2017), paragraph 3.2.3.2.3.3, for mixtures containing strong acids or bases the pH shall be used as a classification criterion since pH is a better indicator of skin corrosion than the concentration limits. Taking into account paragraph 3.2.3.2.1.1 of the Guidance, the mixture shall be classified as Skin Corr. Cat. 1, H314. [redacted] Meta-SPC 7 will be classified for Skin. Corr. 1, H314. The products of **Meta-SPC 9** contain hydrogen peroxide in the range of 7-7.7 %. In addition, three other components of the products are classified for skin corrosion, namely: • Phosphoric acid (max. conc. 1.5 %); H314, Skin Corr. 1B, with SCL C ≥ 25 % and Skin Irrit. 2 with SCL 10 % ≤ C < 25 % according to Annex VI, Table 3.1. of CLP is assigned • Nitric acid (max. conc. 3.71 %); H314, Skin Corr. 1A, with SCL C ≥ 20 % and Skin Corr. 1B, with SCL 5 % ≤ C < 20 % according to Annex VI, Table 3.1. of CLP is assigned • Alcohol EO phosphate ester (max. conc. 14.625 %); H314, Skin Corr. 1B with GCL ≥ 5 % according to Table 3.2.3. of CLP is assigned The products of Meta-SPC 9 have a very low pH<0 (pure test item). According to the Guidance on the Application of the CLP Criteria (Version 5.0, July 2017), paragraph 3.2.3.2.3.3, for mixtures containing strong acids or bases the pH shall be used as a classification criterion since pH is a better indicator of skin corrosion than the concentration limits. Taking into account paragraph 3.2.3.2.1.1 of the Guidance the mixture shall be classified as Skin Corr. Cat. 1, H314. [redacted] As alcohol EO phosphate ester is considered the main driver for classification, the category can thus more accurately be defined as Skin. Corr. 1B. [redacted] the following co-formulants should be considered as SoC: Alcohol EO phosphate

	ester, Phosphoric acid, Nitric acid, Alkyl polyglucoside, Fatty alcohol C10-14 6 EO (Dehydol 980)[redacted]. Underlying argument for identification of these SoCs was the likely contribution to the extreme pH.
Classification of the product according to CLP	Products of **Meta-SPC 7** are classified as Skin Corr. Cat. 1, H314 in accordance with CLP. Products of **Meta-SPC 9** are classified as Skin Corr. Cat 1B, H314 in accordance with CLP.

Eye irritation

No in vitro, in vivo or human data are available. Under CLP, in the absence of data, preparations may be classified for eye irritation/serious eye damage by calculation in accordance with section 3.3.3.3 of the CLP. It is assumed that the relevant ingredients of a mixture causing eye irritation or serious eye damage are those which are present in concentrations of 1 % (w/w for solids, liquids, dusts, mists and vapours and v/v for gases) or greater, unless there is a presumption (e.g., in the case of corrosive ingredients) that an ingredient present at a concentration of less than 1% can still be relevant for classifying the mixture for eye irritation/eye damage. The principle of additivity is applied. It is therefore considered that additional animal studies are not required in order to avoid unnecessary suffering of animals.

[redacted]

Conclusion used in Risk Assessment – Eye irritation	
Value/conclusion	Products of **Meta-SPC 2, Meta-SPC 5, Meta-SPC 8** and **Meta-SPC 11** are not classified.
Justification for the value/conclusion	The active substance hydrogen peroxide is classified as Eye Dam. 1; H318 with the SCL 8 % ≤ C < 50 % and Eye Irrit. 2; H319 with the SCL 5 % ≤ C < 8 %. The products **Meta-SPC 2** (also covering **Meta-SPC 8**) contain hydrogen peroxide in the range of 1 – 1 %. Other components of the products classified for eye damage/irritation and/or skin corrosion/irritation are present below the generic cut-off value of 1 % and can thus be disregarded. Products do not warrant classification with respect to eye effects. The products **Meta-SPC 5** (also covering **Meta-SPC 11**) contain hydrogen peroxide in the range of 1.5 – 1.5 %. In addition, another component of the products is classified for eye damage and skin corrosion and is present above the generic cut-off value of 1 %, namely: • [redacted]

	[redacted] [redacted] According to CLP, the following formula is used for classification of mixtures in relation to eye irritation: (%hydrogen peroxide/SCL) + ([redacted]) = (1.5/5) + ([redacted]) = 0.48 which is < 1, thus products do not warrant classification with respect to eye irritation or damage.
Classification of the product according to CLP	Based on the classification of the components, the products of **Meta-SPC 2, Meta-SPC 5, Meta-SPC 8** and **Meta-SPC 11** do not require classification with respect to eye effects in accordance with CLP.

Value/conclusion	Products of **Meta-SPC 1**, **Meta-SPC 4** and **Meta-SPC 10** are classified as Eye Irrit. 2; H319.
Justification for the value/conclusion	The active substance hydrogen peroxide is classified as Eye Dam. 1; H318 with the SCL 8 % ≤ C < 50 % and Eye Irrit. 2; H319 with the SCL 5 % ≤ C < 8 %. The products **Meta-SPC 1** contain hydrogen peroxide in the range of 6 – 6.6 % being the only one component of mixture classified for eye damage and irritation. The total concentration of hydrogen peroxide falls within the SCL for Eye Irrit. Cat. 2, H319. The products of **Meta-SPC 4** (also covering **Meta-SPC 10**) contain hydrogen peroxide in the range of 1.4 – 1.61 %. In addition, three other components of the products are classified for eye damage or irritation and are present above the generic cut-off value of 1 %, namely: • Sodium lauryl sulfate (max. conc. 3.88 %); H318 with SCL for Eye Dam. 1 C ≥ 20 % and SCL for Eye Irrit. 2 10 % ≤ C < 20 % according to the supplier SDS and in line with ECHA C&L inventory (more than 500 joint entries with same assigned SCL, status July 2019) • Sodium caprylolglutamate (max. conc. 2.0 %); H319 with GCL C ≥ 10 % according to table 3.3.3 of CLP is assigned • Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (max. conc. 1.12 %); H318 with SCL for Eye Dam. 1 C ≥ 20 %,

	SCL for Eye Irrit. 2 10 % ≤ C < 20 % according to the supplier SDS According to CLP, the following formula is used for classification of mixtures in relation to eye damage: (%hydrogen peroxide/SCL) + (%sodium lauryl sulphate/SCL) + (%sodium caprylolglutamate/GCL) + (%sulfuric acid, mono-C12-14-alkyl esters, ammonium salts/SCL) = (1.61/8) + (3.88/20) + (1.12/20) = 0.45 which is < 1. Thus, products do not warrant classification with respect to eye damage. According to CLP, the following formula is used for classification of mixtures in relation to eye irritation: (%hydrogen peroxide/SCL) + (%sodium lauryl sulphate/SCL) + (%sodium caprylolglutamate/GCL) + (%sulfuric acid, mono-C12-14-alkyl esters, ammonium salts/SCL) = (1.61/5) + (3.88/10) + (2.00/10) + (1.12/10) = 1.02 which is > 1. Thus, products warrant classification with respect to eye irritation. [redacted] Sodium caprylolglutamate (CAS No. 68187-32-6) should be consider as a SoC since it contributes to classification H319 by additivity. [redacted]
Classification of the product according to CLP	Based on the classification of the components, the products of **Meta-SPC 1, Meta-SPC 4** and **Meta-SPC 10** are classified as Eye Irrit. 2, H319 in accordance with CLP.

Value/conclusion	Products of **Meta-SPC 3, Meta-SPC 6, Meta-SPC 7, Meta-SPC 9** and **Meta-SPC 12** are classified as Eye Dam. 1; H318.
Justification for the value/conclusion	The active substance hydrogen peroxide is classified as Eye Dam. 1; H318 with the SCL 8 % ≤ C < 50 % and Eye Irrit. 2; H319 with the SCL 5 % ≤ C < 8 %. The products of **Meta-SPC 3** contain hydrogen peroxide in the range of 35.00-36.75 % being the only component of the formulation that is classified for skin corrosion/irritation and eye damage/irritation. As the maximum concentration of hydrogen peroxide falls within the SCL for eye damage, the products are classified as Eye Dam1., H318. The products of **Meta-SPC 6** (also covering **Meta-SPC 12**) contain hydrogen peroxide in the range of 2 – 2.3 %. In addition, another component of the products is classified for eye damage and is present above the generic cut-off value of 1 %, namely: n-Propanol (max. conc. 17.5 %); H318 with GCL C ≥ 3 % according to Table 3.3.3 of CLP is assigned As the sum of ingredients classified as Eye Dam. Cat. 1 and Skin Corr. Cat. 1A, 1B or 1C is more than 3 %, according to the table 3.3.3 of the CLP, the products are classified as Eye Dam. Cat. 1, H318.

	The products of **Meta-SPC 7** contain hydrogen peroxide in the range of 4.95-5.45 %. In addition, another component of the products is classified for eye damage and is present above the generic cut-off value of 1 %, namely: • Mixture of alkyl ether carboxylic acids (max. conc. 3.65 %); H318 with GCL C ≥ 3 % according to table 3.3.3. of CLP is assigned As the sum of ingredients classified as Eye damage Cat. 1; H318 is more than 3 %, according to the table 3.3.3 of the CLP, the products are classified as Eye Dam. Cat. 1, H318. The products of **Meta-SPC 9** contain hydrogen peroxide in the range of 7 – 7.7 %. In addition, also other components of the products are classified for eye damage or skin corrosion and are present above the generic cut-off value of 1 %, namely: • Phosphoric acid (max. conc. 1.5 %); H314, Skin Corr. 1B, with SCL C ≥ 25 % and Skin Irrit. 2 with SCL 10 % ≤ C < 25 % according to Annex VI, Table 3.1. of CLP is assigned • Nitric acid (max. conc. 3.71 %); H314, Skin Corr. 1A, with SCL C ≥ 20 % and Skin Corr. 1B, with SCL 5 % ≤ C < 20 % according to Annex VI, Table 3.1. of CLP is assigned • Alcohol EO phosphate ester (max. conc. 14.625 %); H314, Skin Corr. 1B with GCL C ≥ 5 % according to Table 3.2.3. of CLP is assigned • Alkylpolyglycoside C8-C10 (max. conc. 6.35 %); H318, Eye Dam. 1 with GCL C ≥ 3 % according to Table 3.3.3. of CLP is assigned • Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980, max. conc. 3 %); H318, Eye Dam. 1 with GCL C ≥ 3 % according to Table 3.3.3. of CLP is assigned Formulations of Meta-SPC 9 contain strong acids and have a pH<0 (pure test item). According to the Guidance on the Application of the CLP Criteria, vers. 5.0, July 2017, paragraph 3.3.3.2.3.3, for mixtures containing strong acids or bases the pH shall be used as a classification criterion since pH will be a better indicator of serious eye damage than the concentration limits. Accordingly, and also taking into account paragraph 3.2.3.2.1 of the Guidance, the mixture shall be classified as Skin Corr. Cat. 1, H314 which implicitly covers classification as Eye Dam. 1, H318. [redacted]
Classification of the product according to CLP	Based on the classification of the components, the products of **Meta-SPC 3, Meta-SPC 6, Meta-SPC 7, Meta-SPC 9** and **Meta-SPC 12** are classified as Eye Dam. 1; H318 in accordance with CLP.

Respiratory tract irritation

Conclusion used in the Risk Assessment – Respiratory tract irritation	
Value/conclusion	Products of **Meta-SPC 1, Meta-SPC 2, Meta-SPC 4, Meta-SPC 5, Meta-SPC 6, Meta-SPC 7, Meta-SPC 8, Meta-SPC 9, Meta-SPC 10, Meta-SPC 11** and **Meta-SPC 12** – not classified
Justification for the conclusion	The active substance hydrogen peroxide is classified as STOT SE, Cat. 3; H335 with SCL ≥ 35 %. The products of Meta groups in question contain hydrogen peroxide in the range of 1 – 7.7 % being the only one component of mixture classified for STOT SE, Cat. 3; H335. As the SCL for classification is not exceeded, no classification of products is justified.
Classification of the product according to CLP	Based on the classification of the components, the products of **Meta-SPC 1, Meta-SPC 2, Meta-SPC 4, Meta-SPC 5, Meta-SPC 6, Meta-SPC 7, Meta-SPC 8, Meta-SPC 9, Meta-SPC 10, Meta-SPC 11** and **Meta-SPC 12** are not classified as STOT SE, Cat. 3; H335 in accordance with CLP.

Value/conclusion	Products of **Meta-SPC 3 -** STOT SE 3; H335
Justification for the conclusion	The active substance hydrogen peroxide is classified as STOT SE, Cat. 3; H335 with SCL ≥ 35 %. The products of Meta-SPC 3 contain hydrogen peroxide at maximum concentrations of 36.75%, respectively, exceeding the SCL for classification.
Classification of the product according to CLP	Based on the classification of the components, the products of **Meta-SPC 3** are classified as STOT SE, Cat. 3; H335 in accordance with CLP.

Skin sensitization

Conclusion used in Risk Assessment – Skin sensitisation	
Value/conclusion	Products of **Meta-SPC 1**, **Meta-SPC 2**, **Meta-SPC 3**, **Meta-SPC 4**, **Meta-SPC 5**, **Meta-SPC 6**, **Meta-SPC 7, Meta-SPC 8, Meta-SPC 9, Meta-SPC 10, Meta-SPC 11** and **Meta-SPC 12** are not classified.
Justification for the value/conclusion	For **Meta-SPC 1**, **Meta-SPC 3**, **Meta-SPC 4**, **Meta-SPC 6, Meta-SPC 10 and Meta-SPC 12** there are no components of the products that are classified for skin sensitisation or require a labelling phrase for elicitation with respect to sensitised individuals. Products of **Meta-SPC 2, Meta-SPC 5, Meta-SPC 8** and **Meta-SPC 11** contain [redacted]. According to the supplier SDS, [redacted] is classified as Skin Sens. 1B, H317. The products of Meta-SPC 2, Meta-SPC 5, Meta-SPC 8 and Meta-SPC 11 do not require classification for skin sensitization in accordance with table 3.4.5 of CLP or a labelling phrase for elicitation with respect to sensitised individuals in accordance with table 3.4.6 of CLP.

	Products of **Meta-SPC 7 and Meta-SPC 9** contain [redacted]. According to the supplier SDS, [redacted] is classified as Skin Sens. 1B, H317. A GCL of 1 % and an elicitation limit of 0.1 % applies according to table 3.4.5 and 3.4.6 of CLP. The Guidance on the Application of the CLP Criteria, vers. 5.0, July 2017, p. 77 has been followed to determine the classification based on mixtures in mixtures. [redacted]. Also, according to Guidance on the Application of the CLP Criteria, vers. 5.0, July 2017, p. 351 the additivity concept is not applicable for respiratory or skin sensitisation, i.e. if one single classified substance is present in the mixture above the generic or specific concentration limit, the mixture must be classified for that hazard. If the mixture contains two substances each below the generic or specific concentration limits, the mixture will not be classified. In Meta-SPC 7 and Meta-SPC 9 the maximum concentration of a single ingredient will be < 0.1 % in the mixture. Products do not warrant classification with respect to skin sensitisation and do not require a labelling phrase for elicitation with respect to sensitised individuals.
Classification of the product according to CLP	Based on the classification of the components, the products of **Meta-SPC 1, Meta-SPC 2, Meta-SPC 3, Meta-SPC 4, Meta-SPC 5, Meta-SPC 6, Meta-SPC 7, Meta-SPC 8, Meta-SPC 9, Meta-SPC 10, Meta-SPC 11** and **Meta-SPC 12** are not classified for skin sensitisation in accordance with CLP. In addition, products do not require a labelling phrase for elicitation with respect to sensitised individuals.

Respiratory sensitization (ADS)

Conclusion used in Risk Assessment – Respiratory sensitisation	
Value/conclusion	Products of all Meta groups – not classified
Justification for the value/conclusion	There are no components of the products that are classified for respiratory sensitisation or require a labelling phrase for elicitation with respect to sensitised individuals. No classification for respiratory sensitisation is justified.
Classification of the product according to CLP	Based on the classification of the components, the products of all Meta groups are not classified for respiratory sensitisation in accordance with CLP.

Acute toxicity

Acute toxicity by oral route

No animal or human data are available. Under CLP, in the absence of data, preparations may be classified for acute oral toxicity by calculation of acute toxicity estimate (ATE) of relevant ingredients. The category of toxicity of mixture is derived according to Table 3.1.1 of CLP. In accordance with section 3.1.3.3 of the CLP, it is assumed that the relevant ingredients of a mixture are those which are present in concentrations of 1 % (w/w for solids, liquids, dusts, mists and vapours and v/v for gases) or greater, unless there is a reason to suspect that an ingredient present at a concentration of less than 1 % can still be relevant for classifying the mixture for acute toxicity.

According to CLP, the following formula for estimation of ATE for mixture is used:

$$\frac{100}{ATE_{mix}} = \sum_{n} \frac{C_i}{ATE_i}$$

where C_i = concentration of ingredient i (%)

i = the individual ingredient from 1 to n

n = the number of ingredients

ATE_i = Acute Toxicity Estimate of ingredient i

ATE_{mix} = Acute Toxicity Estimate of mixture

It is therefore considered that additional animal studies are not required in order to avoid unnecessary suffering of animals.

Value used in the Risk Assessment – Acute oral toxicity	
Value	Products of **Meta-SPC 1, Meta-SPC2, Meta-SPC 4, Meta-SPC 5, Meta-SPC 6, Meta-SPC 7, Meta-SPC8, Meta-SPC 9, Meta-SPC 10, Meta-SPC 11** and **Meta-SPC 12** – not classified
Justification for the selected value	The active substance hydrogen peroxide is classified as Acute Tox. 4, H302 (Harmful if swallowed) with the LD_{50} for acute oral toxicity 486 mg/kg bw/d. The products of **Meta-SPC 1** contain hydrogen peroxide up to 6.6 % being the only component classified for acute oral toxicity. The following formula is used for ATE_{mix} estimate: $100/ATE_{mix} = 6.6/486 = 0.014$ $ATE_{mix} = 100/0.014 = 7143$ mg/kg bw As the criterion for the Acute Tox. 4 is 300 < ATE ≤ 2000, no classification is justified. The products of **Meta-SPC 2** (also covering **Meta-SPC 8**) contain hydrogen peroxide up to 1 %. Other components of the products classified for acute oral toxicity are present below the generic cut-off value of 1 % and can thus be disregarded according to Regulation No 1272/2008 Annex I, table 1.1. Products do not warrant classification with respect to acute oral toxicity.

	The products of **Meta-SPC 6** (also covering **Meta-SPC 12**) contain hydrogen peroxide up to 2.3 %. Other components of the products classified for acute oral toxicity are present below the generic cut-off value of 1 % and can thus be disregarded according to Regulation No 1272/2008 Annex I, table 1.1. Products do not warrant classification with respect to acute oral toxicity. The products of **Meta-SPC 4** (also covering **Meta-SPC 10**) contain hydrogen peroxide in the range of 1.4 – 1.61 %. In addition, two components of the products are classified for acute oral toxicity and are present above the generic cut-off value of 1 %, namely: - Sodium lauryl sulfate (max. conc. 3.88 %) with a LD_{50} value of 1200 mg/kg bw/d according to section 11 of the product SDS and in line with the REACH registration dossier - Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, max. conc. 1.12 %) with no LD_{50} value available; an ATE value of 500 mg/kg bw (oral toxicity Category 4) according to Table 3.1.2 of CLP is assigned The following formula is used for ATE_{mix} estimate: $100/ATE_{mix} = (1.61/486) + (3.88/1200) + (1.12/500) = 0.009$ $ATE_{mix} = 100/0.009 = 11111$ mg/kg bw As the criterion for the Acute Tox. 4 is 300 < ATE ≤ 2000, no classification is justified. The products of **Meta-SPC 7** contain hydrogen peroxide up to 5.45 %. Another component of the products is classified for acute oral toxicity but present below the generic cut-off value of 1 % and can thus be disregarded according to Regulation No 1272/2008 Annex I, table 1.1. The following formula is used for ATE_{mix} estimate: $100/ATE_{mix} = 5.45/486 = 0.011$ $ATE_{mix} = 100/0.011 = 9090$ mg/kg bw. As the criterion for the Acute Tox. 4 is 300 < ATE ≤ 2000, no classification is justified. The products of **Meta-SPC 9** contain hydrogen peroxide in the range of 7 – 7.7 %. In addition, two other ingredients are classified as Acute Tox. 4, H302, namely: - [redacted]. - Alcohols, C10-C16 ethoxylated propoxylated (max. conc. 3.0 %) [redacted] [redacted]

	[redacted] The following formula is used for ATE_{mix} estimate: $100/ATE_{mix}$ = (7.7/486) + ([redacted]) + (3.0/[redacted]) = 0.021 ATE_{mix} = 100 / 0.021 = 4762 mg/kg bw As the criterion for the Acute Tox. 4 is 300 < ATE ≤ 2000, no classification is justified. The products of **Meta-SPC 11** (also covering **Meta-SPC 5**) contain hydrogen peroxide up to 1.5 %. In addition, one component of the products is classified for acute oral toxicity and is present above the generic cut-off value of 1 %, namely: [redacted] The following formula is used for ATE_{mix} estimate: $100/ATE_{mix}$ = (1.5/486) + ([redacted]) = 0.0038 ATE_{mix} = 100 / 0.0038 = 2632 mg/kg bw As the criterion for the Acute Tox. 4 is 300 < ATE ≤ 2000, no classification is justified.
Classification of the product according to CLP	Based on the classification of the components, the products of **Meta-SPC 1, Meta-SPC 2, Meta-SPC 4, Meta-SPC 5, Meta-SPC 6, Meta-SPC 7, Meta-SPC 8, Meta-SPC 9, Meta-SPC 10, Meta-SPC 11** and **Meta-SPC 12** are not classified for acute oral toxicity in accordance with CLP.

Value	Products of **Meta-SPC 3 -** Acute Tox. 4, H302 (Harmful if swallowed)
Justification for the selected value	The active substance hydrogen peroxide is classified as Acute Tox. 4, H302 (Harmful if swallowed) with the LD_{50} for acute oral toxicity 486 mg/kg bw/d. The products of **Meta-SPC 3** contain hydrogen peroxide up to 36.75 % being the only component classified for acute oral toxicity. The following formula is used for ATE_{mix} estimate: $100/ATE_{mix}$ = 36.75/486 =0.076 ATE_{mix} = 100/0.076 = 1315 mg/kg bw As the criterion for the Acute Tox. 4 is 300 < ATE ≤ 2000, the mentioned classification is justified for all products in question.

Classification of the product according to CLP	Based on the classification of the components, the products of **Meta-SPC 3** are classified for acute oral toxicity (Acute Tox. 4, H302) in accordance with CLP.

Acute toxicity by inhalation

No animal or human data are available. Under CLP, in the absence of data, preparations may be classified for acute inhalation toxicity by calculation of acute toxicity estimate (ATE) of relevant ingredients. The category of toxicity of mixture is derived according to Table 3.1.1 of CLP. In accordance with section 3.1.3.3 of the CLP, it is assumed that the relevant ingredients of a mixture are those which are present in concentrations of 1 % (w/w for solids, liquids, dusts, mists and vapours and v/v for gases) or greater, unless there is a reason to suspect that an ingredient present at a concentration of less than 1 % can still be relevant for classifying the mixture for acute toxicity.

According to CLP, the following formula for estimation of ATE for mixture is used:

$$\frac{100}{ATE_{mix}} = \sum_{n} \frac{C_i}{ATE_i}$$

where C_i = concentration of ingredient i (%)

i = the individual ingredient from 1 to n

n = the number of ingredients

ATE_i = Acute Toxicity Estimate of ingredient i

ATE_{mix} = Acute Toxicity Estimate of mixture

It is therefore considered that additional animal studies are not required in order to avoid unnecessary suffering of animals.

[redacted]

[redacted]

[redacted]

According to the ECHA PhysChem guidance the following is mentioned in section 3.6.5.6. on Page 74: *"For all powder biocidal products and biocidal products that are applied in manner that generates exposure to aerosols, particles or droplets then MMAD (mass medium aerodynamic diameter) must be determined. The percentage of particles in mass medium aerodynamic diameter < 50 µm must be established."*

Due to this requirement, five products with trigger sprayers in Hydrogen Peroxide Family 1 were tested:

- Klercide Sporicidal Low Residue Peroxide ( ) – 1L trigger sprayer;
- Incidin Oxyfoam S ( ) – 750 mL trigger sprayer;
- Incidin Oxyfoam ( ) – 750 mL trigger sprayer;

- OxyDes Rapid ( ) – 1 L trigger sprayer;
- DrySan Oxy ( ) – 1 L trigger sprayer.

The determined MMAD is >50 µm for all tested products. Test data show that the MMAD is even > 100 µm.

Value used in the Risk Assessment – Acute inhalation toxicity	
Value	Products of all Meta groups – not classified
Justification for the selected value	The active substance hydrogen peroxide is classified as Acute Tox. 4, H332 (Harmful if inhaled) with the LD_{50} for acute inhalation toxicity >170 mg/m^3 or > 0.170 mg/L (vapour). The products of all Meta groups contain hydrogen peroxide in the range of 1 – 36.75 % being the only component classified for acute inhalation toxicity. , no classification is justified. The products of **Meta-SPC 5** (also covering **Meta-SPC 11**) contain hydrogen peroxide up to 1.5 %. In addition, Meta-SPC 5 contains one other ingredient that is classified as Acute Tox. 4, H332, namely: The following formula is used for ATE_{mix} estimate in line with example 13 of the Guidance on the CLP Criteria (v. 5.0, July 2017):

Applied formula:

$((limit/ATE) * concentration/100)_{mist} + ((limit/ATE) \times concentration/100)_{vapour}$

limit= the upper border of ATE values for a hazard category (Table 3.1.1., Annex I, CLP)

concentration= concentration of a component tested in a state/form

Category 4:

[redacted]

No classification for acute toxicity by the inhalation route is warranted.

The products of **Meta-SPC 9** contain hydrogen peroxide in the range of 7 – 7.7 %. In addition, Meta-SPC 9 contains three other ingredients that are classified with respect to acute inhalation toxicity, namely:

- Nitric acid (max. conc. 3.71 %) with a LD_{50} value of 2.65 mg/L for vapour [redacted].
- Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980, max. conc. 3 %) with a LD_{50} value of 3.5 mg/l for dust/mist according to section 11 of the product SDS

[redacted]

[redacted]

The following formula is used for ATE_{mix} estimate in line with example 13 of the Guidance on the CLP Criteria (v. 5.0, July 2017):

Applied formula:

$((limit/ATE) * concentration/100)_{mist} + ((limit/ATE) \times concentration/100)_{vapour}$

limit= the upper border of ATE values for a hazard category (Table 3.1.1., Annex I, CLP)

concentration= concentration of a component tested in a state/form

Category 4:
5/3.5 * 3/100 (Dehydol 980) + [redacted] * [redacted] ([redacted]) + [redacted] * [redacted] ([redacted]) + 20/2.65 * 3.71/100 (nitric acid) = 0.043 + 0.05 + 0.14 + 0.28 = 0.51 < 1

No classification for acute toxicity by the inhalation route is warranted.

Classification of the product according to CLP	Based on the classification of the components, the products of all Meta groups are not classified for acute inhalation toxicity in accordance with CLP.

Acute toxicity by dermal route

No animal or human data are available. Under CLP, in the absence of data, preparations may be classified for acute dermal toxicity by calculation of acute toxicity estimate (ATE) of relevant ingredients. The category of toxicity of mixture is derived according to Table 3.1.1 of CLP. In accordance with section 3.1.3.3 of the CLP, it is assumed that the relevant ingredients of a mixture are those which are present in concentrations of 1 % (w/w for solids, liquids, dusts, mists and vapours and v/v for gases) or greater, unless there is a reason to suspect that an ingredient present at a concentration of less than 1 % can still be relevant for classifying the mixture for acute toxicity.

According to CLP, the following formula for estimation of ATE for mixture is used:

$$\frac{100}{ATE_{mix}} = \sum_{n} \frac{C_i}{ATE_i}$$

where C_i = concentration of ingredient i (%)

i = the individual ingredient from 1 to n

n = the number of ingredients

ATE_i = Acute Toxicity Estimate of ingredient i

ATE_{mix} = Acute Toxicity Estimate of mixture

It is therefore considered that additional animal studies are not required in order to avoid unnecessary suffering of animals.

Value used in the Risk Assessment – Acute dermal toxicity	
Value	Products of all Meta groups – not classified
Justification for the selected value	There are no components of the products that are classified for acute toxicity via the dermal route and consequently no classification for acute dermal toxicity is required.
Classification of the product according to CLP	Based on the classification of the components, the products of all Meta groups are not classified for acute dermal toxicity in accordance with CLP.

Information on dermal absorption

No in vitro or in vivo studies on dermal absorption are available. Based on the physico-chemical properties of hydrogen peroxide, 100 % dermal penetration should be used in the absence of more accurate information. However, in the absence of clear systemic effects, no dermal penetration parameter was needed in order to conclude on human health risks from the presented uses of hydrogen peroxide. No additional dermal penetration studies are needed.

Value(s) used in the Risk Assessment – Dermal absorption	
Substance	Hydrogen peroxide
Value	100 %

Justification for the selected value(s)	Hydrogen peroxide is reactive and it degrades rapidly in contact with organic material. The rapid degradation upon contact with skin explains the absence of systemic effects from exposure to hydrogen peroxide. However, application of hydrogen peroxide solutions to damaged skin, or exceptional cases with excessive amounts of exogenous hydrogen peroxide on skin, may result in some systemic dose. Hydrogen peroxide is presumed to degrade rapidly into oxygen and water in contact with blood or other body fluids. Despite the fact that hydrogen peroxide is a normal metabolite in the cell metabolism and the knowledge of the hydrogen peroxide metabolism e.g. through catalase and glutathione peroxidase enzymes, data on the effects of exogenous hydrogen peroxide exposure in humans or animals is limited and mainly consists of case reports of oxygen embolisation following the degradation of hydrogen peroxide after exposure to high amounts of the substance. In rat blood diluted 1000 times, the half-life of hydrogen peroxide was less than 5 minutes for the low and intermediate concentrations of hydrogen peroxide 5 and 10 mg/L. For the high concentration (20 mg/mL) the half-life was more than 4 hrs. In the study, concentrations of hydrogen peroxide were far away from the range present in products or in-use concentrations. Even then the study demonstrates the high efficacy of the antioxidative system in blood. Furthermore, it supports the view that hydrogen peroxide if entering blood circulation is rapidly decomposed in blood and will not be systemically available. For this reason, the distribution of hydrogen peroxide in the body is expected to be very limited after exposure to hydrogen peroxide solutions.

Available toxicological data relating to non active substance(s) (i.e. substance(s) of concern)

[redacted]

[redacted]

[redacted]

The BPF contains other active substances that are acting as co-formulants in Hydrogen Peroxide Family 1:

- [redacted];
- [redacted];
- **Citric acid (5949-29-1) - draft CAR available 23 August 2013;**
- [redacted];
- **N-propanol (CAS No 71-23-8) - draft CAR available 18 July 2016;**
- **2-phenoxyethanol (CAS No 122-99-6) - draft CAR available 31 December 2016.**

According to information, that is available in ECHA homepage, at the time of dossier submission draft CAR was available for citric acid, n-propanol and 2-phenoxyethanol.

Following substances are considered as SoC in this BPF: Citric acid (CAS No 5949-29-1); N-propanol (CAS No 71-23-8) and 2-phenoxyethanol (CAS No 122-99-6).

Based on above presented information, following assessments should be performed:

Meta-SPC	**SoC**
Meta-SPC 1	No SoC presented
Meta-SPC 2 and Meta-SPC 8 (identical composition)	No SoC presented
Meta-SPC 3	No SoC presented
Meta-SPC 4 and Meta-SPC 10	**Sodium lauryl sulfate (max. conc. 3.88%)** Sodium lauryl sulfate leads to the classification of the formulations of Meta-SPC 4 and Meta-SPC 10 with H319 by additivity. Thus, this substance qualifies as SoC according to criterion # 1 of the SoC Guidance and a qualitative assessment (band A) should be conducted. **Sodium caprylolglutamate (max. conc. 2.00%)** Sodium caprylolglutamate leads to the classification of the formulations of Meta-SPC 4 and Meta-SPC 10 with H319 by additivity. Thus, this substance qualifies as SoC according to criterion # 1 of the SoC Guidance and a qualitative assessment (band A) should be conducted. **Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, max. conc. 1.12%)** Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts lead to the classification of the formulations of Meta-SPC 4 and Meta-SPC 10 with H319 by additivity. Thus, this substance qualifies as SoC according to criterion # 1 of the SoC Guidance and a qualitative assessment (band A) should be conducted. **Citric acid monohydrate (max. conc. 0.9%)** Citric acid is a biocidal active substance and present in the formulations of Meta-SPC 4 and Meta-SPC 10 at > 0.1%. A draft CAR has become available on 23 August 2013. Thus, this substance qualifies as SoC according to criterion # 2 of the SoC Guidance and a fully quantitative risk assessment (band C) should generally be conducted. **2-Phenoxyethanol (max. conc. 0.9%)** 2-Phenoxyethanol is a biocidal active substance and present in the formulations of Meta-SPC 4 and Meta-SPC 10 at > 0.1%. A draft CAR has become available on 31 December 2016. Thus, this substance qualifies as SoC according to criterion # 2 of the SoC Guidance and a fully quantitative risk assessment (band C) should generally be conducted.
Met-SPC 5 and Meta-SPC 11 (identical composition)	No SoC presented

Meta-SPC 6 and Meta-SPC 12 (identical composition)	**N-Propanol (max. conc. 17.5%)** N-Propanol is a biocidal active substance and present in the formulations of Meta-SPC 6 and Meta-SPC 12 at > 0.1%. A draft CAR has become available on 18 July 2016. Thus, this substance qualifies as SoC according to criterion # 2 of the SoC Guidance and a fully quantitative risk assessment (band C) should generally be conducted. Besides being an active substance, n-propanol triggers classification of formulations of Meta-SPC 6 and Meta-SPC 12 with H318. Thus, additionally, Art 3(f) of the BPR is fulfilled and a qualitative exposure and risk assessment (band B) should be conducted.
Meta-SPC 7	**Mixture of alkyl ether carboxylic acid (max. conc. 3.65%, individual compounds: Capryleth-9 Carboxylic acid and Hexeth-4 Carboxylic Acid)** Alkyl ether carboxylic acids trigger the classification of the formulations of Meta-SPC 7 with H318. Thus, these substances qualify as SoC according to Art 3(f) of the BPR and a qualitative exposure and risk assessment (band B) should be conducted.

Meta-SPC 9	**Alcohol EO phosphate ester (max. conc. 14.625%)** Alcohol EO phosphate ester trigger the classification of the formulations of Meta-SPC 9 with H314 and H318. Thus, this substance qualifies as SoC according to Art 3(f) of the BPR and a qualitative exposure and risk assessment (band B) should be conducted. **Alkyl polyglucoside (max. conc. 6.35%)** Alkyl polyglucoside trigger the classification of the formulations of Meta-SPC 9 with H318. Thus, this substance qualifies as SoC according to Art 3(f) of the BPR and a qualitative exposure and risk assessment (band B) should be conducted. **Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980, max. conc. 3%)** Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980) trigger the classification of the formulations of Meta-SPC 9 with H318. Thus, this substance qualifies as SoC according to Art 3(f) of the BPR and a qualitative exposure and risk assessment (band B) should be conducted. **Phosphoric acid (max. conc. 1.5%)** Phosphoric acid is classified as Skin Corr. 1B; H314 with the specific concentration limit (SCL) C ≥ 25 % and as Skin Irrit. 2; H315 and Eye Irrit. 2; H319 with the SCL 10 % ≤ C < 25 %. Thus, phosphoric acid is contained at a concentration well below the skin/eye irritation threshold. Nevertheless, it may contribute to the extreme pH of the products of Meta-SPC9 and a qualitative exposure and risk assessment (band B) should be conducted. **Nitric acid (max. conc. 3.71%)** Nitric acid is classified as Skin Corr. 1A; H314 with the specific concentration limit (SCL) C ≥ 20 % and as Skin Corr. 1B; H314 with the SCL 5 % ≤ C < 20 %. Thus, nitric acid is contained at a concentration below the skin corrosion/eye damage thresholds. Nevertheless, it may contribute to the extreme pH of the products of Meta-SPC9 and a qualitative exposure and risk assessment (band B) should be conducted.

Available toxicological data relating to a mixture

No additional toxicological data.

2.2.6.2 Exposure assessment

Introductory remarks and general considerations

[redacted]

Biocidal Product Family (BPF) and intended uses

The BPF consists of 12 mSPCs and contains products for the following 8 settings:

- Life sciences cleanrooms – PT2
- Industry (non-food contact) – PT2
- Food and beverage industry (food contact) – PT4
- Teat disinfection – PT3
- Health care application – PT2
- Institutional application (non-food contact) – PT2
- Institutional application (food contact) – PT4
- Hand disinfection – PT1

Setting	Respective Meta SPCs
1. Life sciences cleanrooms – PT2	Meta SPC 1, 5 and 11
2. Industry (non-food contact) – PT2	Meta SPC 2, 6, 8, 12
3. Food and beverage industry (food contact) – PT4	Meta SPC 2, 3, 6, 8, 12
4. Teat disinfection – PT3	Meta SPC 4
5. Health care application – PT2	Meta SPC 5, 7, 8, 9, 11
6. Institutional application (non-food contact) – PT2	Meta SPC 5, 7, 9, 11
7. Institutional application (food contact) – PT4	Meta SPC 5, 7, 9, 11
8. Hand disinfection – PT1	Meta SPC 10

For these 8 settings, 47 intended uses have been derived.

[redacted]

[redacted]

Use # 5.4 – (PT2) Disinfection of non-food contact surfaces in health care applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)				
PT2	PT2: Health care application	PT2 Disinfection of non-food contact surfaces in health care applications	5	Scenario I: Routine and non-routine disinfection of smaller surfaces in hospital room by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface - PT2
PT2	PT2: Health care application	PT2 Disinfection of non-food contact surfaces in health care applications	5	Scenario II:Routine and non-routine disinfection of smaller surfaces in medical practices by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface - PT2
PT2	PT2: Health care application	PT2 Disinfection of non-food contact surfaces in health care applications	5	Scenario III: Routine and non-routine disinfection of larger surfaces in hospital room by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface - PT2
PT2	PT2: Health care application	PT2 Disinfection of non-food contact surfaces in health care applications	5	Scenario IV: Routine and non-routine disinfection of larger surfaces in medical practices by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface - PT2

[redacted]

The mSPC3, mSPC7 and mSPC9 contain soluble concentrates whereas mSPC1, mSPC2, mSPC4, mSPC5, mSPC6 and mSPC10 contain ready-to-use (RTU) liquids and mSPC 1 mSPC8, mSPC11 and mSPC12 contain impregnated RTU wipes or mop wipes. All formulations are water-based.

Only professional uses are relevant. Products in the *Hydrogen Peroxide Family 1* are not used by consumers/non-professionals.

As a general approach it has been considered that the assessment for RTU liquids covers applications for impregnated RTU wipes and RTU mop wipes due to lower dermal and inhalation exposure potential from wipe products.

[redacted]

Summary of BPF with its 12 mSPCs and 8 related settings

mSPC1	mSPC2	mSPC3	mSPC4	mSPC5	mSPC6	mSPC7	mSPC8	mSPC9	mSPC10	mSPC11	mSPC12
PT2: Life sciences cleanroom				PT2: Life sciences cleanroom						PT2: Life sciences cleanroom (RTU wipes)	
	PT2: Industry (non-food contact)				PT2: Industry (non-food contact)		PT2: Industry (non-food contact) (RTU wipes)				PT2: Industry (non-food contact) (RTU wipes)
	PT4: Food and beverage industry (food contact)	PT4: Food and beverage industry (food contact)			PT4: Food and beverage industry (food contact)		PT4: Food and beverage industry (food contact) (RTU wipes)				PT4: Food and beverage industry (food contact) (RTU wipes)
			PT3: Teat disinfection								
				PT2: Health care application		PT2: Health care application	PT2: Health care application (RTU wipes)	PT2: Health care application		PT2: Health care application (RTU wipes)	
				PT2: Institutional application (non-food contact)		PT2: Institutional application (non-food contact)		PT2: Institutional application (non-food contact)		PT2: Institutional application (non-food contact) (RTU wipes)	
				PT4: Institutional application (food contact)		PT4: Institutional application (food contact)		PT4: Institutional application (food contact)		PT4: Institutional application (food contact) (RTU wipes)	
									PT1: Hand disinfection		

The 47 intended uses relevant for the 8 settings in the 12 mSPCs of the BPF are summarised in the following overview table.

Intended uses per mSPC

mSPC1
Use # 1.1 – (PT2) Disinfection of **life sciences cleanrooms** by spraying using trigger sprayer and dry wipe
Use # 1.2 – (PT2) Disinfection of **life sciences cleanrooms** by mopping using flat mop and bucket
Use # 1.3 – (PT2) Disinfection of **life sciences cleanrooms** by wiping using impregnated RTU wipes
Use # 1.4 – (PT2) Disinfection of **life sciences cleanrooms** by mopping using impregnated RTU mop wipes
mSPC2
Use # 2.1 – (PT2) Disinfection of surfaces in **industry** (e.g. dining areas, bathrooms) by spraying using trigger sprayer and dry wipe and/or by mopping using flat mop and bucket
Use # 2.2 – (PT2) Disinfection of surfaces in **industry** (e.g. dining areas, bathrooms) by mopping using flat mop and bucket
Use # 2.3 – (PT4) Disinfection of food contact surfaces in **food and beverage industry** by spraying using trigger sprayer and dry wipe
Use # 2.4 – (PT4) Disinfection of food contact surfaces in **food and beverage industry** by spraying using fixed installed sprayer
mSPC3
Use # 3.1 – (PT4) Disinfection of food contact surfaces in **food and beverage industry** by automated dipping or spraying in closed system
Use # 3.2 – (PT4) Disinfection of food contact surfaces in **food and beverage industry** by CIP
mSPC4
Use # 4.1 – (PT3) **Teat dips** for pre-milking disinfection
mSPC5
Use # 5.1 – (PT2) Disinfection of **life sciences cleanrooms** by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)
Use # 5.2 – (PT2) Disinfection of **life sciences cleanrooms** by mopping using flat mop and bucket (Meta-SPC 5 c)
Use # 5.3 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by spraying using trigger sprayer and dry wipe (Meta-SPC 5 b)
Use # 5.4 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)
Use # 5.5 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by wiping using clean single use cloth/wipe and bucket (Meta-SPC 5 b)
Use # 5.6 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by wiping using clean single use cloth/wipe and bucket (Meta-SPC 5 c)
Use # 5.7 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by mopping with mop and bucket (Meta-SPC 5 c)
Use # 5.8 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by mopping with mop and bucket (Meta-SPC 5 c)

Use # 5.9 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface or by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe and non-routine disinfection of larger surfaces by mopping using mop and bucket (Meta-SPC 5 c)
Use # 5.10 – (PT2) Disinfection of non-food contact surfaces in **institutional applications** by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)
Use # 5.11 – (PT4) Disinfection of food contact surfaces in **institutional applications** by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)
mSPC6
Use # 6.1 – (PT2) Disinfection of small surfaces in **industry** (e.g. dining areas, bathrooms) by spraying using trigger sprayer
Use # 6.2 – (PT4) Disinfection of food contact surfaces in **food and beverage industry** by spraying using trigger sprayer
mSPC7
Use # 7.1 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by mopping using flat mop and bucket
Use # 7.2 – (PT2) Disinfection of non-food contact surfaces in **institutional applications** by spraying using trigger sprayer and dry wipe and/or by mopping using flat mop and bucket
Use # 7.3 – (PT2) Disinfection of non-food contact surfaces in **institutional applications** by mopping using flat mop and bucket
Use # 7.4 – (PT2) Disinfection of non-food contact surfaces in **institutional applications** by spraying using wall mounted device
Use # 7.5 – (PT4) Disinfection of food contact surfaces in **institutional applications** by spraying using trigger sprayer
mSPC8
Use # 8.1 – (PT2) Disinfection of surfaces in **industry** (e.g. dining areas, bathrooms) by wiping using impregnated RTU wipes
Use # 8.2 – (PT4) Disinfection of food contact surfaces in **food and beverage industry** by wiping using impregnated RTU wipes
Use # 8.3 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by wiping using impregnated RTU wipes
mSPC9
Use # 9.1 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by wiping using clean single use cloth/wipe and bucket
Use # 9.2 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by mopping using flat mop and bucket
Use # 9.3 – (PT2) Disinfection of non-food contact surfaces in **institutional applications** by spraying using trigger sprayer and dry wipe or by wiping using single-use cloth and bucket and/or floors by mopping using flat mop and bucket
Use # 9.4 – (PT2) Disinfection of non-food contact surfaces in **institutional applications** by mopping using flat mop and bucket
Use # 9.5 – (PT2) Disinfection of non-food contact surfaces in **institutional applications** by spraying using wall mounted device
Use # 9.6 – (PT4) Disinfection of food contact surfaces in **institutional applications** by spraying using trigger sprayer and dry wipe
Use # 9.7 – (PT4) Disinfection of food contact surfaces in **institutional applications** by wiping using single-use cloth and bucket

mSPC10
Use # 10.1 – (PT1) Hygienic **hand wash**
mSPC11
Use # 11.1 – (PT2) Disinfection of **life sciences cleanrooms** by wiping using impregnated RTU wipes (Meta-SPC 11 c)
Use # 11.2 – (PT2) Disinfection of **life sciences cleanrooms** by mopping using impregnated RTU mop wipes (Meta-SPC 11 c)
Use # 11.3 – (PT2) Disinfection of non-food contact surfaces in **health care applications** by wiping using impregnated RTU wipes (Meta-SPC 11 d)
Use # 11.4 – (PT2) Disinfection of non-food contact surfaces in **institutional applications** by wiping using impregnated RTU wipes (Meta-SPC 11 d)
Use # 11.5 – (PT4) Disinfection of food contact surfaces in **institutional applications** by wiping using impregnated RTU wipes (Meta-SPC 11 d)
mSPC12
Use # 12.1 – (PT2) Disinfection of surfaces in **industry** (e.g. dining areas, bathrooms) by wiping using impregnated RTU wipes
Use # 12.2 – (PT4) Disinfection of food contact surfaces in **food and beverage industry** by wiping using impregnated RTU wipes

Mode of action of hydrogen peroxide

Due to the reactivity of hydrogen peroxide, degradation occurs rapidly when it comes into contact with organic material. The adverse effects of hydrogen peroxide in humans are limited to local effects at the site of first contact with the body with systemic effects considered symptomatic of the corrosive properties of hydrogen peroxide and thus secondary to the local effects. No clear systemic effects were observed which is plausible in the light of the mode of action, i.e. direct chemical reactivity leading to rapid degradation. Therefore, systemic exposure is not relevant and only local exposures have been considered. The corrosive/irritating effects to the skin and mucous membranes are mainly concentration dependent with a minor dependence on exposure duration.

Strategy for human health exposure and risk assessment (HHRA)

The exposure assessment is mainly based on [redacted] field studies which largely cover the intended uses and are provided in the confidential Annex. Where Tier-I calculations have been performed, models and default values from the Biocides Human Health Exposure Methodology (vers. 1, October 2015; partially updated in HEAdhoc Recommendation no. 6 (vers. 3, 2017)), HEEG opinions, HEAdhoc Recommendations and ConsExpo Factsheets were used. The aerosol fraction was calculated based on relevant TNsG models, whereas vapour fraction has been modelled with ConsExpo Web. [redacted].

In addition, the following documents have been taken into account for the human health exposure and risk assessment:

- Assessment Report on hydrogen peroxide in product types 1-6, eCA Finland, March 2015 (referred to in the following as H_2O_2 AR)

[redacted]

- Assessment Report on propan-1-ol in product types 1, 2 and 4, eCA Germany, June 2017 (referred to in the following as nPA AR)
- Assessment Report on citric acid in product type 2, eCA Belgium, March 2016
- Draft Competent Authority Report on 2-phenoxyethanol in product types 1, 2 and 4, eCA Italy, as received from eCA Latvia October 2019 (referred to in the following as 2-PE draft CAR)
- Guidance on the Biocidal Product Regulation, Volume III Human Health – Assessment & Evaluation (Parts B+C), version 4.0, December 2017 (referred to in the following as BPR Guidance HH)
- Guidance on Substances of Concern – Proposed Human Health (Toxicology) Assessment Scheme for Authorisation of Biocidal Products, CA-Nov14-Doc.5.11 (meanwhile included in Annex A of the BPR Guidance HH)
- Technical Agreements for Biocides Human Health (TOX), version 2.0, November 2018 (referred to in the following as TOX TAB)

Application rates of biocidal products per application method
The application rates of biocidal products per application method are outlined in the following table.

Application rates of biocidal products per application method

Application method	Application rate used for HHRA	Justification
Trigger spraying and wiping with dry wipe	10 mL/m^2	[redacted]
Wiping with cloth and bucket	10 mL/m^2	
Wiping with RTU wipe	10 mL/m^2	
Mopping with RTU mop wipe	10 mL/m^2	
Mopping with mop and bucket	20 mL/m^2	
Spraying with wall mounted device	180 mL/m^2	
Teat disinfection	4 mL/cow/milking	
Hand disinfection	3 mL/application	

Relevant routes of exposure

The applicant claims that for products sold in trigger sprayers available data show that the mass medium aerodynamic diameter (MMAD) is well above 50 µm in all cases and the particles with MMAD < 50 µm form only a minor fraction. Consequently, and considering that vapours of hydrogen peroxide are the most relevant route of inhalation exposure, aerosol exposure shall be considered to be negligible and to be waived for trigger spray scenarios. However, where relevant, e.g. for the scenarios of spraying with wall mounted device, exposure from both fractions (aerosol and vapour) has been combined to yield the total inhalation exposure estimate. The eCA considers this reasoning as justified.

Local assessment of the active substance hydrogen peroxide

Only a local exposure and risk assessment is considered relevant for the active substance hydrogen peroxide. For the dermal route of exposure, a (semi-)quantitative assessment is performed. Concentration of hydrogen peroxide in the different scenarios is directly compared with the dermal NOAEC of 35% (concentration limit for classification as skin irritating according to the CLP).
In addition to the (semi-)quantitative assessment for dermal exposure, a qualitative assessment considering the worst-case C&L of the different mSPCs has been performed in line with the BPR Guidance HH, Appendix 4-5 on risk characterisation for local effects.

As regards the inhalation route of exposure, a quantitative assessment has been performed and exposure levels have been compared with the inhalation AEC of 1.25 mg/m^3 as detailed in the H_2O_2 AR. Either measured values from exposure studies or data from exposure models have been considered. In the latter case, aerosol fraction and vapour fraction has been combined, where relevant.

Eventually, the conclusion on use-specific risk mitigation measures has been drawn taking together the information from both the (semi-)quantitative and qualitative assessment.

Considerations on secondary exposure

Concerning the secondary exposure, the field studies [redacted] have been used ([redacted]

[redacted]). These are considered to cover secondary exposure scenarios for the general public as the duration of the studies reflect the time when the general public may enter a treated area. Again, the eCA considers these deliberations justified.

Combined exposure and combined exposure scenarios

In the active substance approval, no combined exposure assessment was performed because it was not considered relevant for a locally acting active substance. [redacted]. Nonetheless, it was considered that combined exposure may be relevant for a person staying in a room performing different tasks. Accordingly, it was concluded that combined exposure needs to be considered when simultaneous or consecutive tasks are performed in the same room. Combined scenarios have been addressed by the [redacted] ([redacted]) study [redacted]. Please refer to the confidential Annex for more details on the field study.

Residues of hydrogen peroxide, disinfection by-products (DBPs) and dietary risk assessment (DRA)

According to the H_2O_2 AR, hydrogen peroxide is reactive, and it degrades rapidly in contact with organic material. A significant proportion of hydrogen peroxide decomposes to water and oxygen. At a level of practical concentrations, no disinfection by-products (DBPs) with (eco)toxicological relevance have been identified.

[redacted]

[redacted]

Substances of concern (SoC) assessment

The products pertaining to the BPF have been checked for any co-formulants which might qualify as substances of concern (SoC) according to Annex A of the BPR Guidance HH. Please also refer to chapter 2.2.6.1 Assessment of effects on Human Health, Available toxicological data relating to non active substance(s) (i.e. substance(s) of concern). Identified SoC and the respective strategy for their assessment are summarised in the following table.

Summary of SoCs identified in the mSPCs and strategy for assessment

Meta-SPC	**SoC**
Meta-SPC 1	No SoC presented
Meta-SPC 2 and Meta-SPC 8 (identical composition)	No SoC presented
Meta-SPC 3	No SoC presented
Meta-SPC 4 and Meta-SPC 10	**Sodium lauryl sulfate (max. conc. 3.88%)**

	Sodium lauryl sulfate leads to the classification of the formulations of Meta-SPC 4 and Meta-SPC 10 with H319 by additivity. Thus, this substance qualifies as SoC according to criterion # 1 of the SoC Guidance and a qualitative assessment (band A) should be conducted. **Sodium caprylolglutamate (max. conc. 2.00%)** Sodium caprylolglutamate leads to the classification of the formulations of Meta-SPC 4 and Meta-SPC 10 with H319 by additivity. Thus, this substance qualifies as SoC according to criterion # 1 of the SoC Guidance and a qualitative assessment (band A) should be conducted. **Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, max. conc. 1.12%)** Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts lead to the classification of the formulations of Meta-SPC 4 and Meta-SPC 10 with H319 by additivity. Thus, this substance qualifies as SoC according to criterion # 1 of the SoC Guidance and a qualitative assessment (band A) should be conducted. **Citric acid monohydrate (max. conc. 0.9%)** Citric acid is a biocidal active substance and present in the formulations of Meta-SPC 4 and Meta-SPC 10 at > 0.1%. A draft CAR has become available on 23 August 2013. Thus, this substance qualifies as SoC according to criterion # 2 of the SoC Guidance and a fully quantitative risk assessment (band C) should generally be conducted. For the SoC assessment, due to the low hazard potential, a qualitative rather than a quantitative assessment has been performed. **2-Phenoxyethanol (max. conc. 0.9%)** 2-Phenoxyethanol is a biocidal active substance and present in the formulations of Meta-SPC 4 and Meta-SPC 10 at > 0.1%. A draft CAR has become available on 31 December 2016. Thus, this substance qualifies as SoC according to criterion # 2 of the SoC Guidance and a fully quantitative risk assessment (band C) should generally be conducted. For the SoC assessment, reference values from the list of endpoints and modelling strategies of the draft CAR (status October 2019) have been used.
Met-SPC 5 and Meta-SPC 11 (identical composition)	No SoC presented
Meta-SPC 6 and Meta-SPC 12 (identical composition)	**N-Propanol (max. conc. 17.5%)** N-Propanol is a biocidal active substance and present in the formulations of Meta-SPC 6 and Meta-SPC 12 at > 0.1%. A draft CAR has become available on 18 July 2016. Thus, this substance qualifies as SoC according to criterion # 2 of the SoC Guidance and a fully quantitative risk assessment (band C) should generally be conducted.

	Besides being an active substance, n-propanol triggers classification of formulations of Meta-SPC 6 and Meta-SPC 12 with H318. Thus, additionally, Art 3(f) of the BPR is fulfilled and a qualitative exposure and risk assessment (band B) should be conducted. For the SoC assessment, reference values from the list of endpoints and modelling strategies of the final CAR have been used.
Meta-SPC 7	**Mixture of alkyl ether carboxylic acid (max. conc. 3.65%, individual compounds: Capryleth-9 Carboxylic acid and Hexeth-4 Carboxylic Acid)** Alkyl ether carboxylic acids trigger the classification of the formulations of Meta-SPC 7 with H318. Thus, these substances qualify as SoC according to Art 3(f) of the BPR and a qualitative exposure and risk assessment (band B) should be conducted.
Meta-SPC 9	**Alcohol EO phosphate ester (max. conc. 14.625%)** Alcohol EO phosphate ester trigger the classification of the formulations of Meta-SPC 9 with H314 and H318. Thus, this substance qualifies as SoC according to Art 3(f) of the BPR and a qualitative exposure and risk assessment (band B) should be conducted. **Alkyl polyglucoside (max. conc. 6.35%)** Alkyl polyglucoside trigger the classification of the formulations of Meta-SPC 9 with H318. Thus, this substance qualifies as SoC according to Art 3(f) of the BPR and a qualitative exposure and risk assessment (band B) should be conducted. **Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980, max. conc. 3%)** Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980) trigger the classification of the formulations of Meta-SPC 9 with H318. Thus, this substance qualifies as SoC according to Art 3(f) of the BPR and a qualitative exposure and risk assessment (band B) should be conducted. **Phosphoric acid (max. conc. 1.5%)** Phosphoric acid is classified as Skin Corr. 1B; H314 with the specific concentration limit (SCL) C ≥ 25 % and as Skin Irrit. 2; H315 and Eye Irrit. 2; H319 with the SCL 10 % ≤ C < 25 %. Thus, phosphoric acid is contained at a concentration well below the skin/eye irritation threshold. Nevertheless, it may contribute to the extreme pH of the products of Meta-SPC9 and a qualitative exposure and risk assessment (band B) should be conducted. **Nitric acid (max. conc. 3.71%)** Nitric acid is classified as Skin Corr. 1A; H314 with the specific concentration limit (SCL) C ≥ 20 % and as Skin Corr. 1B; H314 with the SCL 5 % ≤ C < 20 %. Thus, nitric acid is contained at a concentration below the skin corrosion/eye damage thresholds. Nevertheless, it may contribute to the extreme pH of the products of Meta-SPC9 and a qualitative exposure and risk assessment (band B) should be conducted.

Exposure assessment

General consideration by BPC

[redacted]

Structuring of the HHRA

For the sake of readability and consistency, the human health exposure and risk assessment is presented per setting. As the manual mixing and loading scenario is similar for the 8 settings, it is presented only once and then referred to in the different chapters to avoid redundancy.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]. Thus, a worst-case mixing and loading scenario has been calculated for the maximum concentration of hydrogen peroxide in the BPF, i.e. 7.7% for soluble concentrates in mSPC9.

[redacted]

[redacted]. The respective assessments for the worst-case concentrations (7.7% for soluble concentrates of mSPC9, 6.6% for RTU liquids of mSPC1) are provided in the following; [redacted].

Automated mixing and loading is relevant for some products of mSPC2 and mSPC3 only. Thus, the scenarios will be presented for the relevant setting (i.e. food and beverage industry PT4).

In this PAR, the following scenario numbers have been assigned:

- Scenario 1.1 - M/L phase: Manual mixing and loading of soluble concentrates (trigger sprayer, bucket, wall mounted device)
- Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer, dispenser, bucket)
- Scenario 1.3 - M/L phase: Automated mixing and loading of soluble concentrates (aseptic filling, CIP)
- Scenario 1.4 – M/L phase: Automated mixing and loading of RTU products (fixed installed spraying)

Worst-case scenario for manual mixing and loading: Soluble concentrates

Worst-case scenario 1.1 - M/L phase: Manual mixing and loading of soluble concentrates (trigger sprayer, bucket, wall mounted device)

Description of worst-case scenario 1.1 - M/L phase: Manual mixing and loading of soluble concentrates (trigger sprayer, bucket, wall mounted device)

The professional user fills the concentrated product (soluble concentrate) into a trigger sprayer or pours it into a bucket. Re-filling of a trigger sprayer is done in the same way.

Alternatively, the product container is connected to a wall mounted device.

During the related steps, dermal and inhalation exposure may occur.

For the dermal route of exposure, a (semi-)quantitative assessment has been performed considering the maximum concentration of hydrogen peroxide from the range of the worst-case mSPC of the BPF where this scenario is relevant (mSPC9).

The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model according to WGVII2018_TOX_8-2, scenario D. Mixing and loading/refilling.

[redacted], molecular weight matrix has been calculated to be 22 g/mol [redacted].

The inhalation exposure towards aerosolss during mixing and loading tasks is considered negligible.

All relevant input parameters are listed in the table below.

	Parameters acc. to WGVII2018_TOX_8-2, scenario D	**Value**
Tier 1	Concentration of a.s. – worst-case for soluble concentrates	7.7%
	Density (worst-case from BPF)	1.1 g/mL
	Model for dermal exposure: n.r., (semi-)quantitative assessment	n.r.
	Number of operations	1x/day
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration	0.75 min
	Molecular weight matrix ([redacted])	22 g/mol
	Product amount (half of the amount of the container content); worst-case packaging handled manually: 20 L canister	11 000 g
	Weight fraction substance	7.7%
	Room volume (personal breathing zone)	1 m^3

Worst-case scenario 1.1 - M/L phase: Manual mixing and loading of soluble concentrates (trigger sprayer, bucket, wall mounted device)

Description of worst-case scenario 1.1 - M/L phase: Manual mixing and loading of soluble concentrates (trigger sprayer, bucket, wall mounted device)		
	Ventilation rate (worst-case value for unspecified room)	0.6/h
	Vapour pressure (H_2O_2 AR)	299 Pa at 25°C
	Application temperature	25°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	constant
	Release area (opening of bottle)	20 cm^2
	Emission duration	0.25 min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for worst-case scenario 1.1 - M/L phase: Manual mixing and loading of soluble concentrates (trigger sprayer, bucket, wall mounted device)

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m^3]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m^3 or %]**
Scenario 1.1, worst-case for soluble concentrates	1	Aerosol: n.r. Vapour: 0.014 Combined: 0.014	7.7	n.r.	Inhalation: 0.014 Dermal: 7.7

Further information and considerations on Scenario 1.1 - M/L phase: Manual mixing and loading of soluble concentrates (trigger sprayer, bucket, wall mounted device)

Local effects triggering the need for a qualitative exposure and risk assessment are dependent on the classification of the mSPC.

With respect to local effects, soluble concentrates of

- mSPC7 are classified as H314 (Skin Corr. 1), H318 (Eye Dam. 1)
- mSPC9 are classified as H314 (Skin Corr. 1B), H318 (Eye Dam. 1),

thus, a qualitative exposure and risk assessment is triggered. The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Worst-case scenario for manual mixing and loading: RTU liquids

Worst-case scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer, dispenser, bucket)

Description of worst-case scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer, dispenser, bucket)

The professional user fills the RTU product into a trigger sprayer or dispenser or pours it into a bucket. Re-filling of a trigger sprayer or dispenser is done in the same way.

During the related steps, dermal and inhalation exposure may occur.

For the dermal route of exposure, a (semi-)quantitative assessment has been performed considering the maximum concentration of hydrogen peroxide from the range of the worst-case mSPC of the BPF where this scenario is relevant (mSPC1).

The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model according to WGVII2018_TOX_8-2, scenario D. Mixing and loading/refilling.

[redacted], the molecular weight matrix has been set to [redacted] (18 g/mol).

The inhalation exposure towards aerosols during mixing and loading tasks is considered negligible.

All relevant input parameters are listed in the table below.

	Parameters acc. to WGVII2018_TOX_8-2, scenario D	**Value**
Tier 1	Concentration of a.s. – worst-case for RTU product	6.6%
	Density (worst-case from BPF)	1.1 g/mL
	Model for dermal exposure: n.r., (semi-)quantitative assessment	n.r.
	Number of operations	1x/day
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration	0.75 min
	Molecular weight matrix ([redacted])	18 g/mol
	Product amount (half of the amount of the container content); worst-case packaging handled manually: 20 L canister	11 000 g
	Weight fraction substance	6.6%
	Room volume (personal breathing zone)	1 m^3
	Ventilation rate (worst-case value for unspecified room)	0.6/h
	Vapour pressure (H_2O_2 AR)	299 Pa at 25°C
	Application temperature	25°C

Worst-case scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer, dispenser, bucket)

Description of worst-case scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer, dispenser, bucket)		
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	constant
	Release area (opening of bottle)	20 cm^2
	Emission duration	0.25 min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Worst-case scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer, dispenser, bucket)

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 1.2, worst-case for RTU liquids	1	Aerosol: n.r. Vapour: 0.01 Combined: 0.01	6.6	n.r.	Inhalation: 0.01 Dermal: 6.6

Further information and considerations on Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer, dispenser, bucket)

Local effects triggering the need for a qualitative exposure and risk assessment are dependent on the classification of the mSPC.

With respect to local effects, RTU liquids of

- mSPC1, mSPC4 and mSPC10 are classified as H319 (Eye Irrit. 2),
- mSPC6 are classified as H318 (Eye Dam. 1),

thus, a qualitative exposure and risk assessment is triggered. The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Products of mSPC2 and mSPC5 are not classified. Thus, no qualitative exposure and risk assessment is triggered.

Identification of main paths of human exposure towards active substance(s) and substances of concern from its use in biocidal product

Summary table: relevant paths of human exposure							
Exposure path	**Primary (direct) exposure**			**Secondary (indirect) exposure**			
	Industrial use	**Professional use**	**Non-professional use**	**Industrial use**	**Professional use**	**General public**	**Via food**
Inhalation	n.a.	yes	n.a.	n.a.	yes	yes	n.a.
Dermal	n.a.	yes	n.a.	n.a.	negligible	no	n.a.
Oral	n.a.	no	n.a.	n.a.	no	no	negligible

n.a., not applicable

Setting 1: Life sciences cleanroom – PT2

mSPC1 (6.0-6.6% H_2O_2), **mSPC5** (1.5% H_2O_2) and **mSPC11** (1.5% H_2O_2) biocidal products are used as disinfectants in life sciences cleanrooms (Grade A-D) and supporting environments for instance, in pharmaceutical industry (PT2). They are RTU liquids, RTU wipes or RTU mop wipes and do not contain any SoCs.

RTU liquids are either applied by trigger sprayer to disinfect small surfaces such as worktops and equipment or by flat mops and bucket for disinfection of floors. For wiping of small surfaces, impregnated RTU wipes (200 mm x 200 mm) are used, whereas floors are mopped with RTU mop wipes (250 mm x 420 mm).

mSPC1

Products of **mSPC1** (RTU liquids, RTU wipes or RTU mop wipes) contain hydrogen peroxide at a concentration of 6.0-6.6%% and realistic worst-case scenarios comprise disinfection tasks in cleanrooms such as disinfection of worktops, equipment or floors. Relevant surface areas and application rates are given in brackets.

- Scenario I: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe ([redacted])
- Scenario II: Disinfection of floors by mopping using flat mop and bucket ([redacted])
- Scenario III: Disinfection of small surfaces by wiping using impregnated RTU wipes ([redacted])
- Scenario IV: Disinfection of floors by mopping using impregnated RTU mop wipes ([redacted])

Exposure associated to usage of products of **mSPC1** is estimated by modelling according to HEAdhoc Recommendation 15 on Harmonisation of PT2 small surface disinfection exposure scenarios for biocidal products containing highly volatile active substances by RTU wipes and trigger sprayer. Relevant scenarios are listed in the table "list of scenarios" below. The assessment for RTU liquids is considered to cover impregnated RTU wipes and RTU mop wipes also assuming the lower exposure potential of the latter.

Due to the classification with Eye Irrit. 2, H319, a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3).

A summary of intended uses and relevant application scenarios for **mSPC1** is given in the following overview table along with the HHRA strategy.

PT2: Life sciences cleanroom	**mSPC1**
H_2O_2 concentration	6.0-6.6%
Formulation type	RTU liquids RTU wipes RTU mop wipes
C&L	H319
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 1.1 – (PT2) Disinfection of life sciences cleanrooms by spraying using trigger sprayer and dry wipe	
Scenario I: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe (addressed by scenario 2.1)	Modelling
Use # 1.2 – (PT2) Disinfection of life sciences cleanrooms by mopping using flat mop and bucket	
Scenario II: Disinfection of floors by mopping using flat mop and bucket (addressed by scenario 2.2)	Modelling
Use # 1.3 – (PT2) Disinfection of life sciences cleanrooms by wiping using impregnated RTU wipes	
Scenario III: Disinfection of small surfaces by wiping using impregnated RTU wipes (addressed by scenario 2.1)	(Modelling) covered by use # 1.1
Use # 1.4 – (PT2) Disinfection of life sciences cleanrooms by mopping impregnated RTU mop wipes	
Scenario IV: Disinfection of floors by mopping using impregnated RTU mop wipes (addressed by scenario 2.2)	(Modelling) covered by use # 1.2

mSPC5

Products of mSPC5 (RTU liquids) contain hydrogen peroxide at a concentration of 1.5% and realistic worst-case scenarios comprise disinfection tasks in cleanrooms such as disinfection of worktops, equipment, packaging or floors. Relevant surface areas and application rates are given in brackets.

- Scenario I: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe ([redacted])
- Scenario II: Transfer disinfection by spraying using trigger sprayer and wipe ([redacted])
- Scenario III: Disinfection of floors by mopping using flat mop and bucket ([redacted])

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC5** is estimated by field studies.

[redacted]

[redacted]

Estimated exposure towards hydrogen peroxide for intended uses of **mSPC5** is thus well covered by the

[redacted]

as all relevant parameters of the scenarios fall within the boundaries of these field studies and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

As products of **mSPC5** are not classified, no qualitative local assessment is triggered.

A summary of intended uses and relevant application scenarios for **mSPC5** is given in the following overview table along with the HHRA strategy.

PT2: Life sciences cleanroom	**mSPC5**
H_2O_2 concentration	1.50%
Formulation type	RTU liquids
C&L	-
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 5.1 – (PT2) Disinfection of life sciences cleanrooms by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)	
Scenario I: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe	[redacted]
Scenario II: Transfer disinfection by spraying using trigger sprayer and wipe	
Use # 5.2 – (PT2) Disinfection of life sciences cleanrooms by mopping using flat mop and bucket (Meta-SPC 5 c)	
Scenario III: Disinfection of floors by mopping using flat mop and bucket	[redacted]

A comparison of relevant parameters for the scenarios of **mSPC5** and assigned field studies is given in the following overview table.

mSPC5: 1.5% H_2O_2 scenario and field study	Application rate	Disinfected surface	Room volume	Application duration	Exposure duration	Ventilation regime	surface-to-room volume ratio	Reference to relevant guidance
[redacted]								

mSPC11 (covered by mSPC5)
Products of mSPC11 (RTU wipes and RTU mop wipes) contain hydrogen peroxide at a concentration of 1.5% and realistic worst-case scenarios comprise disinfection tasks in cleanrooms such as disinfection of worktops, equipment, packaging or floors. Relevant surface areas and application rates are given in brackets.

- Scenario I: Disinfection of small surfaces by wiping using impregnated RTU wipes ([redacted]); covered by mSPC5
- Scenario II: Transfer disinfection by wiping using impregnated RTU wipes ([redacted]); covered by mSPC5
- Scenario III: Disinfection of floors by mopping using impregnated RTU mop wipes ([redacted]); covered by mSPC5

Exposure associated to usage of products of **mSPC11** is estimated by field studies. The same considerations as for mSPC5 apply.

As products of **mSPC11** are not classified, no qualitative local assessment is triggered.

A summary of intended uses and relevant application scenarios for **mSPC11** is given in the following overview table along with the HHRA strategy.

PT2: Life sciences cleanroom	**mSPC11**
H_2O_2 concentration	1.50%
Formulation type	RTU wipes RTU mop wipes
C&L	-
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 11.1 – (PT2) Disinfection of life sciences cleanrooms by wiping using impregnated RTU wipes (Meta-SPC 11 c)	
Scenario I: Disinfection of small surfaces by wiping using impregnated RTU wipes (covered by mSPC5)	[redacted]
Scenario II: Transfer disinfection by wiping using impregnated RTU wipes (covered by mSPC5)	
Use # 11.2 – (PT2) Disinfection of life sciences cleanrooms by mopping using impregnated RTU mop wipes (Meta-SPC 11 c)	
Scenario III: Disinfection of floors by mopping using impregnated RTU mop wipes (covered by mSPC5)	[redacted]

mSPC1

List of scenarios – Setting 1: Life sciences cleanroom – PT2

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
1	**M/L phase**		
1.2	M/L phase: Manual mixing and loading of RTU products (trigger sprayer, bucket)	Primary exposure Dermal and inhalation exposure towards the RTU product during manual mixing and loading, i.e. during filling the RTU product into a trigger sprayer or pouring into a bucket. Please refer to worst-case M/L scenario 1.2 for RTU products.	professionals, covered by worst case scenario 1.2 for RTU products
2	**Application phase**		
2.1	Application phase: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe	Primary exposure Dermal and inhalation exposure towards the RTU product during disinfection of small surfaces (e.g. worktops or equipment) in life sciences cleanrooms, including supporting environments (e.g. pharmaceutical industry), by spraying using RTU trigger sprayer and dry wipe.	professionals
2.2	Application phase: Disinfection of floors by mopping using flat mop and bucket	Primary exposure Dermal and inhalation exposure towards the RTU product during disinfection of floors in life sciences cleanrooms, including supporting environments (e.g. pharmaceutical industry), by mopping using flat mop and bucket.	professionals
3	**Post-application phase**		
3.1.	Post-application phase: Cleaning of spray equipment	Primary exposure Dermal and inhalation exposure towards the RTU product during cleaning of spray equipment (trigger sprayer). During cleaning tasks, the disinfectant solution is highly diluted. Exposure is thus covered by the application phase.	professionals, covered by 2.1

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
3.2	Post-application phase: Disposal of disinfection solution	Primary exposure Dermal and inhalation exposure towards the RTU product during disposal of excess disinfectant solution and empty containers. Draining is only of short duration. Exposure is thus covered by the application phase.	professionals, covered by 2.2
4	**Secondary exposure of professional bystanders**		
4.1	Secondary inhalation exposure of professional bystander during disinfection of small surfaces in life sciences cleanrooms	Secondary exposure Inhalation exposure of professional bystander towards the RTU product during disinfection of small surfaces by spraying using trigger sprayer and dry wipe. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.1.	professional bystander, covered by 2.1
4.2	Secondary inhalation exposure of professional bystander during disinfection of floors in life sciences cleanrooms	Secondary exposure Inhalation exposure of professional bystander towards the RTU product during disinfection of floors by mopping using flat mop and bucket. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.2.	professional bystander, covered by 2.2
5.	**Secondary exposure of general public**		
5.1	Secondary inhalation exposure of general public	Not relevant.	General public

Industrial exposure

Not relevant as production and formulation of products in question is addressed under other EU legislations (e.g. Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work) and not repeated under Biocidal Products Regulation 528/2012 as agreed at Biocides Technical Meeting TMI06.

Professional exposure

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer, bucket)

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer, bucket)
The professional user fills the RTU product into a trigger sprayer or pours the RTU product into a bucket. Re-filling of a trigger sprayer is done in the same way. During the related steps, dermal and inhalation exposure may occur. This scenario is covered by the worst-case M/L scenario 1.2 for RTU products.

Further information and considerations on Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer, bucket)

During mixing and loading, the maximum concentration of hydrogen peroxide is 6.6%. With respect to local effects, this results in a classification with H319 (Eye Irrit. 2) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 2.1 - Application phase: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe

Description of Scenario 2.1 - Application phase: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe
The professional user is advised by the product label to spray the disinfectant onto a dry wipe and to wipe small surfaces such as worktops or equipment. Alternatively, products can be sprayed directly onto the surface and finally be wiped off with a dry wipe or left to air dry.     During the related steps, dermal and inhalation exposure may occur. For the dermal route of exposure, a (semi-)quantitative assessment has been performed considering the maximum concentration of hydrogen peroxide from the mSPC range (6.6%). The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model using parameters according to HEAdhoc Recommendation 15,

Scenario 2.1 - Application phase: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe

Description of Scenario 2.1 - Application phase: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe		
scenario B. Cleanrooms. The inhalation exposure towards aerosols is considered negligible due to MMAD of 101 µm and minor fraction of particles with MMAD < 50 µm. Product amount was calculated as follows (application rate x disinfected surface x density): 10 mL/m^2 x 0.5 m^2 x 1.02 g/mL = 5.1 g All relevant input parameters are listed in the table below.		
	Parameters acc. to HEAdhoc 15, scenario B	**Value**
Tier 1	Concentration of a.s. – RTU product	6.6%
	Concentration of a.s. – in-use	6.6%
	Density	1.02 g/mL
	Model for dermal exposure: n.r., (semi-)quantitative assessment	n.r.
	Application rate (applicant data)	10 mL/m^2
	Application frequency (applicant data)	max. 2x/day
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration	45 min
	Molecular weight matrix ([redacted])	18 g/mol
	Product amount	5.1 g
	Weight fraction substance	6.6%
	Room volume	55 m^3
	Ventilation rate	8/h
	Vapour pressure (H_2O_2 AR)	299 Pa at 25°C
	Application temperature	25°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	increasing
	Release area	0.5 m^2
	Application duration	1 min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 2.1 - Application phase: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 2.1	1	Aerosol: n.r. Vapour: 0.74 Combined: 0.74	6.6	n.r.	Inhalation: 0.74 Dermal: 6.6

According to the applicant, products are applied at maximum 2 times per working day. As can be concluded from the sensitivity analysis in ConsExpo, residual air concentration of hydrogen peroxide after 240 min (i.e. half of a typical 8 h work shift) is about 0.2 mg/m³ in the Tier-1 assessment. Adding this residual hydrogen peroxide concentration to the vapour exposure during application, the air concentration comes to 0.94 mg/m³, which is still below the reference value of 1.25 mg/m³. Thus, repeated exposure up to 2 times per working day is considered acceptable.

Further information and considerations on Scenario 2.1 - Application phase: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe

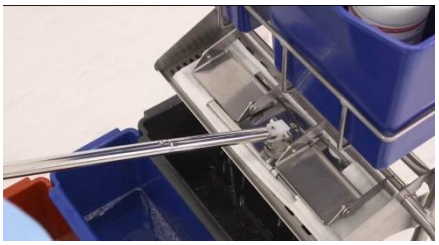
During trigger spraying and wiping, the maximum concentration of hydrogen peroxide is 6.6%. With respect to local effects, this results in a classification with H319 (Eye Irrit. 2) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 2.2 - Application phase: Disinfection of floors by mopping using flat mop and bucket

Description of Scenario 2.2 - Application phase: Disinfection of floors by mopping using flat mop and bucket

The professional user disinfects the floor of a cleanroom by mopping using flat mop and bucket. The cleaning trolley is equipped with a squeezing device to limit the amount of water applied to the floor. According to the recommended procedure, the mopping is performed from the furthest corner towards the door.



During the related steps, dermal and inhalation exposure may occur.

For the dermal route of exposure, a (semi-)quantitative assessment has been performed considering the maximum concentration of hydrogen peroxide from the mSPC range (6.6%).

The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model using parameters according to HEAdhoc Recommendation 15, scenario B. Cleanrooms.

Product amount was calculated as follows (application rate x disinfected surface x density): 20 mL/m^2 x 22 m^2 x 1.02 g/mL = 449 g

The inhalation exposure towards aerosols is considered negligible given the equipment

Scenario 2.2 - Application phase: Disinfection of floors by mopping using flat mop and bucket

Description of Scenario 2.2 - Application phase: Disinfection of floors by mopping using flat mop and bucket

and application method.

Application duration has been set to 5 min in line with HEAdhoc Recommendation 2 which describes the formaldehyde evaluation made by Germany: 22 patient's rooms are mopped and wiped per day taking 5 min/room for mopping and 10 min/room for wiping. As for cleanrooms it is essential that no recontamination occurs, and therefore the professional leaves the room right after having completed the mopping task, the exposure duration has been set equal to the application duration. [redacted].

[redacted].

In conclusion, technical ventilation rate of 20/h was used for Tier-2a assessment, whereas worst-case ventilation rate of 8/h was used for Tier-2b assessment. Risk mitigation measures have finally been derived based on the Tier-2b assessment.

All relevant input parameters are listed in the table below.

	Parameters acc. to HEAdhoc 15, scenario B	**Value**
Tier 1	Concentration of a.s. – RTU product	6.6%
	Concentration of a.s. - in-use	6.6%
	Density	1.02 g/mL
	Model for dermal exposure: n.r., (semi-)quantitative assessment	n.r.
	Application rate (applicant data)	20 mL/m^2
	Application frequency (applicant data)	max. 2x/day

Scenario 2.2 - Application phase: Disinfection of floors by mopping using flat mop and bucket

Description of Scenario 2.2 - Application phase: Disinfection of floors by mopping using flat mop and bucket		
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration (HEAdhoc 2)	5 min
	Molecular weight matrix ([redacted])	18 g/mol
	Product amount	449 g
	Weight fraction substance	6.6%
	Room volume	55 m^3
	Ventilation rate	8/h
	Vapour pressure (H_2O_2 AR)	299 Pa at 25°C
	Application temperature	25°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	increasing
	Release area (default room height 2.5 m)	22 m^2
	Application duration (HEAdhoc 2)	5 min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection
Tier 2a	Mass transfer coefficient ([redacted])	5.08 m/hr
	Ventilation rate	20/h
Tier 2b	Mass transfer coefficient ([redacted])	5.08 m/hr
	Ventilation rate	8/h
	RPE (mask/respirator)	90% protection (RPE10)

Calculations for Scenario 2.2 - Application phase: Disinfection of floors by mopping using flat mop and bucket

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m3]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 2.2	1	Aerosol: n.r. Vapour: 6.6 Combined: 6.6	6.6	n.r.	Inhalation: 6.6 Dermal: 6.6
Scenario 2.2	2a/ 20/h	Aerosol: n.r. Vapour: 2.8 Combined: 2.8	6.6	n.r.	Inhalation: 2.8 Dermal: 6.6
Scenario 2.2	2b/RPE 10	Aerosol: n.r. Vapour: 3.5 Combined: 3.5 0.35 (RPE10)	6.6	n.r.	Inhalation: 3.5 (w/o RPE) 0.35 (RPE10) Dermal: 6.6

According to the applicant, products are applied at maximum 2 times per working day. As can be concluded from the graphs in ConsExpo, residual air concentration of hydrogen peroxide after an exposure time of about 240 min (i.e. half of a typical 8 h work shift) is above the inhalation AEC of 1.25 mg/m^3 in the Tier-2b assessment. Thus, for repeated application or re-entry into the room, the professional needs to observe the same set of risk mitigation measures (i.e. RPE10) as for the first application in the room.

Further information and considerations on Scenario 2.2 - Application phase: Disinfection of floors by mopping using flat mop and bucket

During mopping of floors, the maximum concentration of hydrogen peroxide is 6.6%. With respect to local effects, this results in a classification with H319 (Eye Irrit. 2) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 3.1 - Post-application: Cleaning of spray equipment

Description of Scenario 3.1 - Post-application phase: Cleaning of spray equipment
The professional user, after disinfection of hard surfaces by spraying trigger sprayer, may clean the spray equipment under running water or in a bucket. The product is sprayed until it is used up. During the cleaning step, the product is highly diluted resulting in a very low concentration of hydrogen peroxide. Therefore, it is considered that the dermal and inhalation exposure during cleaning will be negligible and covered by the application phase. Packaging is returned to the supplier or treated as special waste. Levels of exposure from this task are not expected to be significant. The conclusion on negligible exposure is further justified as only a local exposure and risk assessment is relevant for the active substance and exposures during the different work tasks do not add up. Further explanation is given in the "combined scenarios" section below.

Scenario 3.2 - Post-application: Disposal of disinfection solution

Description of Scenario 3.2 - Post-application phase: Disposal of disinfection solution
The professional user, after disinfection by mopping, drains excess disinfectant solution and disposes of empty containers. Draining is only of short duration. Thus, dermal and inhalation exposure is considered negligible and covered by the application phase. Waste must be disposed of according to the applicable local and European regulations. The content should be used as much as possible because only empty containers should be added to the general waste collection. Cleaning the equipment is undertaken by the operator who typically wears a coverall and suitable protective gloves. Levels of exposure from this task are not expected to be significant. The conclusion on negligible exposure is further justified as only a local exposure and risk assessment is relevant for the active substance and exposures during the different work tasks do not add up. Further explanation is given in the "combined scenarios" section below.

Scenario 4.1 - Secondary inhalation exposure of professional bystander during disinfection of small surfaces in life sciences cleanrooms

Description of Scenario 4.1 - Secondary inhalation exposure of professional bystander during disinfection of small surfaces in life sciences cleanrooms
The professional bystander may be exposed towards the RTU product when standing nearby a professional user during disinfection of small surfaces by spraying using trigger sprayer and dry wipe. During the related steps, inhalation exposure may occur. Dermal exposure of bystanders is considered negligible, since direct contact to the product may only happen accidentally. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.1.

Scenario 4.2 - Secondary inhalation exposure of professional bystander during disinfection of floors in life sciences cleanrooms

Description of Scenario 4.2 - Secondary inhalation exposure of professional bystander during disinfection of floors in life sciences cleanrooms
The professional bystander may be exposed towards the RTU product when standing nearby a professional user during disinfection of floors by mopping using flat mop and bucket. During the related steps, inhalation exposure may occur. Dermal exposure of bystanders is considered negligible, since direct contact to the product may only happen accidentally. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). The professional bystander needs to observe the same set of risk mitigation measures (i.e. RPE10) as the user performing the task in the room. Please refer to scenario 2.2.

Combined scenarios

Not relevant.

The active substance only exerts local effects and potential systemic effects are secondary to its direct irritating reactivity. Hence, combination of different work tasks (i.e. M/L, application, post-application phase) is not necessary. Instead, relevant scenarios per intended use are listed separately:

Summary table: local exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Use # 1.1 – (PT2) Disinfection of life sciences cleanrooms by spraying using trigger sprayer and dry wipe					
Scenario 1.2, worst-case for RTU liquids	1	Aerosol: n.r. Vapour: 0.01 Combined: 0.01	6.6	n.r.	Inhalation: 0.01 Dermal: 6.6
Scenario 2.1	1	Aerosol: n.r. Vapour: 0.74 Combined: 0.74	6.6	n.r.	Inhalation: 0.74 Dermal: 6.6
Scenario 3.1	1	Negligible exposure covered by the application phase			
Scenario 4.1	1	Aerosol: n.r. Vapour: 0.74 Combined: 0.74	n.r.	n.r.	Inhalation: 0.74 Dermal: n.r.

Summary table: local exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Use # 1.2 – (PT2) Disinfection of life sciences cleanrooms by mopping using flat mop and bucket					
Scenario 1.2, worst-case for RTU products	1	Aerosol: n.r. Vapour: 0.01 Combined: 0.01	6.6	n.r.	Inhalation: 0.01 Dermal: 6.6
Scenario 2.2	1	Aerosol: n.r. Vapour: 6.6 Combined: 6.6	6.6	n.r.	Inhalation: 6.6 Dermal: 6.6
	2a/ 20/h	Aerosol: n.r. Vapour: 2.8 Combined: 2.8	6.6	n.r.	Inhalation: 2.8 Dermal: 6.6
	2b/RPE10	Aerosol: n.r. Vapour: 3.5 Combined: 3.5 0.35 (RPE10)	6.6	n.r.	Inhalation: 3.5 (w/o RPE) 0.35 (RPE10) Dermal: 6.6
Scenario 3.2	1	Negligible exposure covered by the application phase			
Scenario 4.2	1	Aerosol: n.r. Vapour: 6.6 Combined: 6.6	n.r.	n.r.	Inhalation: 6.6 Dermal: n.r.
	2/RPE10	Aerosol: n.r. Vapour: 3.5 Combined: 3.5 0.35 (RPE10)	n.r.	n.r.	Inhalation: 3.5 (w/o RPE) 0.35 (RPE10) Dermal: n.r.

Non-professional exposure

Not relevant.

Exposure of the general public

Not relevant.

Products are applied in life sciences cleanrooms, including supporting environments (e.g. pharmaceutical industry) under strictly controlled conditions with no access of the general public.

Monitoring data

Summary of field studies is provided in the confidential Annex.

Dietary exposure

Not relevant.

Information of non-biocidal use of the active substance

Summary table of other (non-biocidal) uses			
	Sector of use	**Intended use**	**Reference value(s)**
1.	Cosmetic products[1]	Oral hygiene and tooth whitening products	0.1%
2.	Plant protection products[2]	Basic substance	No MRL required Included in Annex IV of Regulation (EC) No 396/2005 based on Regulation (EU) 2017/1777
3.	Veterinary products[3]	Veterinary active substance	No MRL required for all food producing species according to Regulation (EU) No 37/2010
4.	REACH use	Various, see REACH registration dossier	Workers DNEL (long-term): 1.4 mg/m^3 DNEL (short-term) 3 mg/m^3 General population DNEL (long-term): 0.21 mg/m^3 DNEL (short-term) 1.93 mg/m^3

[1] Scientific Committee on Consumer Products (SCCP), Hydrogen peroxide, in its free form or when released, in oral hygiene products and tooth whitening products, 2007, SCCP/1129/07

[2] Hydrogen peroxide is an approved active substance under Regulation (EC) No 1107/2008, Commission Decision 2007/442/EC, Regulation (EU) 2017/409

[3] Scientific Committee on Consumer Products, Hydrogen peroxide, summary report, EMEA/MRL/061/96-FINAL

Estimating Livestock Exposure to Active Substances used in Biocidal Products

Not relevant.

Estimating transfer of biocidal active substances into foods as a result of professional and/or industrial application(s)

Not relevant.

Estimating transfer of biocidal active substances into foods as a result of non-professional use

Not relevant.

Exposure associated with production, formulation and disposal of the biocidal product

Production and formulation are addressed under other EU legislation (e.g. Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work) and not repeated under Regulation 528/2012 as agreed at Biocides Technical Meeting TMI06).

Waste must be disposed according to the applicable regulations. The content of containers should be used as much as possible because only empty containers should be added to the general waste collection. Exposure during the disposal of biocidal product containers is expected to be negligible.

Aggregated exposure

Not relevant. [redacted].

Setting 2: Industry (non-food contact) – PT2

Products are RTU liquids or RTU wipes and have been assigned to **mSPC2** (1.0% H_2O_2), **mSPC6** (2.0-2.3% H_2O_2), **mSPC8** (1.0% H_2O_2) and **mSPC12** (2.0-2.3% H_2O_2). Products of mSPC6 and mSPC12 contain the SoC n-propanol (nPA, max. 17.5%).

RTU liquids of mSPC2 and mSPC6 are applied by trigger sprayer to disinfect small non-food contact surfaces in industry settings (e.g. dining areas, bathrooms). Alternatively, or in addition to trigger spray application, RTU liquids are applied by flat mops and bucket for disinfection of floors.

Likewise, impregnated RTU wipes of mSPC8 and mSPC12 (200 mm x 250 mm) are used for wiping of small non-food contact surfaces in industry settings (e.g. dining areas, bathrooms).

mSPC2

Products of **mSPC2** (RTU liquids) contain hydrogen peroxide at a concentration of 1.0% and realistic worst-case scenarios comprise disinfection tasks in industry settings (e.g. dining areas, bathrooms) such as disinfection of small surfaces and/or floors. Relevant surface areas and application rates are given in brackets.

- Scenario I: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe ([redacted])
- Scenario II: Disinfection of floors by mopping using flat mop and bucket ([redacted])
- Scenario III: Disinfection of surfaces in industry by spraying using trigger sprayer and dry wipe ([redacted]) and by mopping using flat mop and bucket ([redacted])
- Scenario IV: Disinfection of surfaces in industry by mopping using flat mop and bucket ([redacted])

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC2** is estimated by field studies.

[redacted]

[redacted]

[redacted]

Estimated exposure towards hydrogen peroxide for intended uses of **mSPC2** is thus well covered by the

[redacted]

as all relevant parameters of the scenarios fall within the boundaries of these field studies and related experiments (see overview table).

[redacted]

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

As products of **mSPC2** are not classified, no qualitative local assessment is triggered.

A summary of intended uses and relevant application scenarios for **mSPC2** is given in the following overview table along with the HHRA strategy.

PT2: Industry (non-food contact)	mSPC2
H_2O_2 concentration	1.0%
Formulation type	RTU liquids
C&L	-
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 2.1 – (PT2) Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by spraying using trigger sprayer and dry wipe and/or by mopping using flat mop and	
Scenario I: Disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe - PT2	[redacted]
Scenario II: Disinfection of floors in industry by mopping using flat mop and bucket - PT2	
Scenario III: Disinfection of surfaces in industry by spraying using trigger sprayer and dry wipe and by mopping using flat mop and bucket - PT2	
Use # 2.2 – (PT2) Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by mopping using flat mop and bucket	
Scenario IV: Disinfection of surfaces in industry by mopping using flat mop and bucket - PT2	[redacted]

[redacted]

Based on these considerations, it is concluded that scenario IV of mSPC2 is acceptable as exposure is well covered by two relevant field studies.

A comparison of relevant parameters for the scenarios of **mSPC2** and assigned field studies is given in the following overview table.

mSPC2: 1.0% H_2O_2 scenario and field study	Application rate	Disinfected surface	Room volume	Application duration	Exposure duration	Ventilation regime	surface-to-room volume ratio	Reference to relevant guidance
[redacted]								

mSPC6

Products of **mSPC6** (RTU liquids) contain hydrogen peroxide at a concentration of 2.0-2.3% and realistic worst-case scenarios comprise disinfection tasks in industry settings (e.g. dining areas, bathrooms) such as disinfection of small surfaces. Relevant surface areas and application rates are given in brackets. Products of mSPC6 contain the SoC n-propanol (nPA, max. 17.5%).

- Scenario I: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe ([redacted])

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC6** is estimated by field studies. [redacted]

[redacted]

Estimated exposure towards hydrogen peroxide for intended uses of **mSPC6** is thus well covered by the

- [redacted],

as all relevant parameters of the scenarios fall within the boundaries of this field study and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

Exposure towards the **SoC n-propanol** associated to usage of products of **mSPC6** is estimated by modelling. Relevant scenarios are listed in the table "list of scenarios" below.

Due to the classification with H318 (Eye Dam. 1) and the SoC n-propanol, a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3).

A summary of intended uses and relevant application scenarios for **mSPC6** is given in the following overview table along with the HHRA strategy.

PT2: Industry (non-food contact)	**mSPC6**
H_2O_2 concentration	2.0-2.3%
Formulation type	RTU liquids
C&L	H226 H318
SoC	n-propanol
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 6.1 – (PT2) Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by spraying using trigger sprayer and dry wipe	
Scenario I: Disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe - PT2 **- hydrogen peroxide**	[redacted]
Scenario I: Disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe - PT2 **- SoC n-propanol** (addressed by scenario 2.1)	Modelling

A comparison of relevant parameters for the scenarios of **mSPC6** and assigned field studies is given in the following overview table.

mSPC6: 2.0-2.3% H_2O_2 scenario and field study	Application rate	Disinfected surface	Room volume	Application duration	Exposure duration	Ventilation regime	surface-to-room volume ratio	Reference to relevant guidance

mSPC8 (covered by mSPC2)
Products of **mSPC8** (RTU wipes) contain hydrogen peroxide at a concentration of 1.0% and realistic worst-case scenarios comprise disinfection tasks in industry settings (e.g. dining areas, bathrooms) such as disinfection of small surfaces. Relevant surface areas and application rates are given in brackets.

- Scenario I: Disinfection of small surfaces by wiping using impregnated RTU wipes ([redacted]), covered by mSPC2

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC8** is estimated by field studies. The same considerations as for mSPC2 apply.

As products of **mSPC8** are not classified, no qualitative local assessment is triggered.

A summary of intended uses and relevant application scenarios for **mSPC8** is given in the following overview table along with the HHRA strategy.

PT2: Industry (non-food contact)	**mSPC8**
H_2O_2 concentration	1.0%
Formulation type	RTU wipes
C&L	-
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 8.1 – (PT2) Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by wiping using impregnated RTU wipes	
Scenario I: Disinfection of small surfaces in industry by wiping using impregnated RTU wipes - PT2 (covered by mSPC2)	[redacted]

mSPC12 (covered by mSPC6)
Products of **mSPC12** (RTU wipes) contain hydrogen peroxide at a concentration of 2.0-2.3% and realistic worst-case scenarios comprise disinfection tasks in industry settings (e.g. dining areas, bathrooms) such as disinfection of small surfaces. Relevant surface areas and application rates are given in brackets. Products of mSPC12 contain the SoC n-propanol (nPA, max. 17.5%).

- Scenario I: Disinfection of small surfaces by wiping using impregnated RTU wipes ([redacted]), covered by mSPC6

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC12** is estimated by field studies. The same considerations as for mSPC6 apply.

Exposure towards the **SoC n-propanol** associated to usage of products of **mSPC12** is estimated by modelling. The assessment is covered by mSPC6.

Due to the classification with H318 (Eye Dam. 1) and the SoC n-propanol, a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3). A separate assessment is triggered as risk mitigation measures are different for RTU liquids (mSPC6) and RTU wipes (mSPC12).

A summary of intended uses and relevant application scenarios for **mSPC12** is given in the following overview table along with the HHRA strategy.

PT2: Industry (non-food contact)	**mSPC12**
H_2O_2 concentration	2.0-2.3%
Formulation type	RTU wipes
C&L	H226 H318
SoC	n-propanol
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 12.1 – (PT2) Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by wiping using impregnated RTU wipes	
Scenario I: Disinfection of small surfaces in industry by wiping using impregnated RTU wipes - PT2 - **hydrogen peroxide** (covered by mSPC6)	[redacted]
Scenario I: Disinfection of small surfaces in industry by wiping using impregnated RTU wipes - PT2 - **SoC n-propanol** (covered by mSPC6)	(Modelling) covered by mSPC6

mSPC6 (covering mSPC12) for SoC n-propanol (nPA)

List of scenarios – Setting 2: Industry (non-food contact) – PT2

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
1	**M/L phase**		
1.2 (SoC)	M/L phase: Manual mixing and loading of RTU products (trigger sprayer)	Primary exposure (SoC n-propanol) Dermal and inhalation exposure towards the RTU product during manual mixing and loading, i.e. during filling the RTU product into a trigger sprayer.	professionals
2	**Application phase**		
2.1 (SoC)	Application phase: Disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe	Primary exposure (SoC n-propanol) Dermal and inhalation exposure towards the RTU product during disinfection of small non-food contact surfaces in small, unspecified rooms in industry (e.g. in dining areas, bathrooms) by spraying using RTU trigger sprayer and dry wipe.	professionals
3	**Post-application phase**		

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
3.1 (SoC)	Post-application phase: Cleaning of spray equipment (trigger sprayer)	Primary exposure (SoC n-propanol) Dermal and inhalation exposure towards the RTU product during cleaning of spray equipment (trigger sprayer). During cleaning tasks, the disinfectant solution is highly diluted. Exposure is thus covered by the application phase.	professional, covered by 2.1
4	**Secondary exposure of professional bystanders**		
4.1 (Soc)	Secondary inhalation exposure of professional bystanders during disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe	Secondary exposure (SoC n-propanol) Inhalation exposure of professional bystanders towards the RTU product during disinfection of small surfaces by spraying using trigger sprayer and dry wipe. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.1.	professional bystander, covered by 2.1
5.	**Secondary exposure of general public**		
5.1 (SoC)	Secondary inhalation exposure of general public	Not relevant.	General public

Industrial exposure

Not relevant as production and formulation of products in question is addressed under other EU legislations (e.g. Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work) and not repeated under Biocidal Products Regulation 528/2012 as agreed at Biocides Technical Meeting TMI06.

Professional exposure

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol
The professional user fills the RTU product – containing the SoC n-propanol (nPA) – into a trigger sprayer. Re-filling of a trigger sprayer is done in the same way. Exposure towards the active substance hydrogen peroxide is covered by the worst-case scenario 1.2 for mixing and loading of RTU products.

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol

During the related steps, dermal and inhalation exposure may occur.

The dermal uptake has been estimated with a generic model based on the transdermal flux in line with the nPA AR considering exposure of the palms of both hands (410 cm^2). For the transdermal flux concept, the task duration is needed as input parameter which has been set to the emission duration of 0.25 min.

The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model according to WGVII2018_TOX_8-2, scenario D. Mixing and loading/refilling.

The inhalation exposure towards aerosols during mixing and loading tasks is considered negligible.

All relevant input parameters are listed in the table below.

	Parameters acc. to WGVII2018_TOX_8-2, scenario D	**Value**
Tier 1	Concentration of SoC – RTU product	17.5% nPA
	Concentration of SoC – in-use	17.5% nPA
	Density	0.98 g/mL
	Model for dermal exposure: n.r. Transdermal flux – nPA (nPA AR)	0.85 $mg/cm^2/h$
	Task duration (emission duration)	0.25 min
	Area of exposure – palms of both hands (HEAdhoc 14)	410 cm^2
	Number of operations	1x/day
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration	0.75 min
	Molecular weight matrix ([redacted])	18 g/mol
	Product amount (half of the amount of the container content); worst-case packaging: 20 L bottle	9 800 g
	Weight fraction substance	17.5%
	Room volume (personal breathing zone)	1 m^3
	Ventilation rate (worst-case for unspecified room)	0.6/h
	Vapour pressure (nPA AR)	2760 Pa at 25°C
	Application temperature	25°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol		
	Release area mode	constant
	Release area (opening of bottle)	20 cm^2
	Emission duration	0.25 min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 7.35E-05 Combined: 7.35E-05	2.42E-02	n.r.	2.43E-02

Further information and considerations on Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer)

During manual mixing and loading, the maximum concentration of hydrogen peroxide and n-propanol is 2.3% and 17.5% in mSPC6, respectively. With respect to local effects, this results in a classification with H318 (Eye Dam. 1) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 2.1 - Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe – SoC n-propanol

Description of Scenario 2.1 - Application phase: Disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe – SoC n-propanol
The professional user sprays the disinfectant – containing the SoC n-propanol (nPA) – onto the surface and finally wipes off with a dry wipe or leaves to air dry. Exposure towards hydrogen peroxide is covered by the [redacted]. Parameters for the assessment of the SoC nPA have been aligned with those of this field study and HEAdhoc Recommendation 6, vers. 3, 2017, no 6, updated by ConsExpo Cleaning

Scenario 2.1 - Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe – SoC n-propanol

Description of Scenario 2.1 - Application phase: Disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe – SoC n-propanol

Products Fact Sheet, 2018, p. 104, [redacted]. However, the approach for assessing dermal uptake of nPA needed to be adapted, taking into account the transdermal flux rate.

During the related steps, dermal and inhalation exposure may occur.

The dermal uptake has been estimated with a generic model based on the transdermal flux in line with the nPA AR considering exposure of the palms of both hands (410 cm^2). For the transdermal flux concept, the task duration is needed as input parameter which has been set to the evaporation time of the volatile nPA (at 30°C) in line with the approach generally followed for hand disinfection (HEAdhoc Recommendation 9).

[redacted]

The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model.

The inhalation exposure towards aerosols is considered negligible due to MMAD of 135 µm and minor fraction of particles with MMAD < 50 µm.

Product amount was calculated as follows (application rate x disinfected surface x density): 10 mL/m^2 x 2 m^2 x 0.98 g/mL = 19.6 g

All relevant input parameters are listed in the table below.

	Parameters	**Value**
Tier 1	Concentration of SoC – RTU product	17.5% nPA
	Concentration of SoC – in-use	17.5% nPA
	Density	0.98 g/mL
	Application rate	10 mL/m^2
	Application frequency (applicant data)	1/day
	Transdermal flux – nPA (nPA AR)	0.85 $mg/cm^2/h$
	Area of exposure – palms of both hands (HEAdhoc 14)	410 cm^2
	Task duration (= evaporation time of amount of nPA on skin)	4.4 sec

Scenario 2.1 - Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe – SoC n-propanol

Description of Scenario 2.1 - Application phase: Disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe – SoC n-propanol		
	Model for dermal exposure: Consumer product spraying and dusting model 2 – 2. Hand-held trigger spray	Hand/forearm: 36.1 mg/min Legs/feet/face: 9.7 mg/min
	Spray duration (HEAdhoc 6, vers. 3, 2017, no 6, updated by ConsExpo Cleaning Products Fact Sheet, 2018, p. 104)	5 min
	Vapour pressure ([redacted])	3849 Pa at 30°C
	Application temperature (skin temperature, HEAdhoc 9)	30°C
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration (applicant data, HEAdhoc 6)	60 min
	Molecular weight matrix ([redacted])	18 g/mol
	Product amount	19.6 g
	Weight fraction substance	17.5% nPA
	Room volume (worst-case for unspecified room)	20 m^3
	Ventilation rate (worst-case for unspecified room)	0.6/h
	Vapour pressure (nPA AR)	2760 Pa at 25°C
	Application temperature	25°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	increasing
	Release area (applicant data, HEAdhoc 6)	2 m^2
	Application duration	5 min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 2.1 - Application phase: Disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe – SoC n-propanol

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Scenario 2.1 (SoC)	1	Aerosol: n.r. Vapour: 2.50 Combined: 2.50	0.007	n.r.	2.51

Further information and considerations on Scenario 2.1 - Application phase: Disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe – SoC n-propanol

During trigger spraying and wiping, the maximum concentration of hydrogen peroxide and n-propanol is 2.3% and 17.5%, respectively. With respect to local effects, this results in a classification with H318 (Eye Dam. 1) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 3.1 - Post-application phase: Cleaning of spray equipment (trigger sprayer) – SoC n-propanol

Description of Scenario 3.1 - Post-application phase: Cleaning of spray equipment (trigger sprayer) – SoC n-propanol
Dermal and inhalation exposure towards the RTU product may occur during cleaning of spray equipment (trigger sprayer). During cleaning tasks, the disinfectant solution is highly diluted. Exposure is thus covered by the application phase.

Scenario 4.1 - Secondary inhalation exposure of professional bystanders during disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe – SoC n-propanol

Description of Scenario 4.1 - Secondary inhalation exposure of professional bystanders during disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe – SoC n-propanol
Inhalation exposure of professional bystanders towards the RTU product may occur during disinfection of small non-food contact surfaces by spraying using trigger sprayer and dry wipe. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.1.

*Combined scenarios – **H_2O_2***

Not relevant. For mSPC6, all scenarios have been addressed by field studies.

The active substance only exerts local effects and potential systemic effects are secondary to its direct irritating reactivity. Hence, combination of different work tasks (i.e. M/L, application, post-application phase) is not necessary.

Combined scenarios – **SoC nPA**

The SoC exerts systemic effects. Hence, different work tasks (i.e. M/L, application, post-application phase) have been combined.

Summary table: local exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Use # 6.1 – (PT2) Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by spraying using trigger sprayer					
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 7.35E-05 Combined: 7.35E-05	2.42E-02	n.r.	2.43E-02
Scenario 2.1 (SoC)	1	Aerosol: n.r. Vapour: 2.50 Combined: 2.50	0.007	n.r.	2.51
Scenario 3.1 (SoC)	1	Negligible exposure covered by the application phase			
Scenario 4.1 (SoC)	1	Aerosol: n.r. Vapour: 2.50 Combined: 2.50	n.r.	n.r.	2.50
Combined 1.2 + 2.1 (SoC)		Aerosol: n.r. Vapour: 2.50 Combined: 2.50	0.031	n.r.	2.53

Non-professional exposure

Not relevant.

Exposure of the general public

Not relevant.

Products are applied in industry with no access of the general public.

Monitoring data

Summary of field studies is provided in the confidential Annex.

Dietary exposure

Not relevant.

Information of non-biocidal use of the active substance

See life sciences cleanroom setting 1 above.

Estimating Livestock Exposure to Active Substances used in Biocidal Products

Not relevant.

Estimating transfer of biocidal active substances into foods as a result of professional and/or industrial application(s)

Not relevant.

Estimating transfer of biocidal active substances into foods as a result of non-professional use

Not relevant.

Exposure associated with production, formulation and disposal of the biocidal product

See life sciences cleanroom setting 1 above.

Aggregated exposure

Not relevant. [redacted].

Setting 3: Food and beverage industry – PT4

Products are RTU liquids, soluble concentrates or RTU wipes and have been assigned to **mSPC2** (1.0% H_2O_2), **mSPC3** (35.0-36.75% H_2O_2), **mSPC6** (2.0-2.3% H_2O_2), **mSPC8** (1.0% H_2O_2) and **mSPC12** (2.0-2.3% H_2O_2). Products of mSPC6 and mSPC12 contain the SoC n-propanol (nPA, max. 17.5%).

RTU liquids of mSPC2 and mSPC6 are applied by trigger sprayer to disinfect small food contact surfaces in food and beverage industry settings.

RTU liquids of mSPC2 are also used for automated disinfection application in industrial process equipment by fixed installed spraying (PT4).

Soluble concentrates of mSPC3 are relevant for disinfection of packaging (aseptic filling) by fully automated dipping or spraying and disinfection by CIP under closed process conditions.

Likewise, impregnated RTU wipes of mSPC8 and mSPC12 (200 mm x 250 mm) are used for wiping of small food contact surfaces in food and beverage industry settings.

mSPC2
Products of **mSPC2** (RTU liquids) contain hydrogen peroxide at a concentration of 1.0% and realistic worst-case scenarios comprise disinfection tasks in food and beverage industry settings such as disinfection of small surfaces. Relevant surface areas and application rates are given in brackets.

- Scenario I: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe ([redacted])
- Scenario II: Automated disinfection application in industrial process equipment by fixed installed spraying ([redacted])

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC2 in scenario I** is estimated by a field study. Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC2 in scenario II** is estimated by modelling. Relevant scenarios are listed in the table "list of scenarios" below.

[redacted]

Estimated exposure towards hydrogen peroxide for scenario I of **mSPC2** is thus well covered by the

[redacted]

as all relevant parameters of the scenarios fall within the boundaries of this field study and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

As products of **mSPC2** are not classified, no qualitative local assessment is triggered.

A summary of intended uses and relevant application scenarios for **mSPC2** is given in the following overview table along with the HHRA strategy.

PT4: Food and beverage industry (food contact)	**mSPC2**
H_2O_2 concentration	1.0%
Formulation type	RTU liquids
C&L	-
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 2.3 – (PT4) Disinfection of food contact surfaces in food and beverage industry by spraying using trigger sprayer and dry wipe	
Scenario I: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe - PT4	[redacted]
Use # 2.4 – (PT4) Disinfection of food contact surfaces in food and beverage industry by spraying using fixed installed sprayer	
Scenario II: Automated disinfection application in industrial process equipment by fixed installed spraying - PT4 (addressed by scenario 2.1)	Modelling

A comparison of relevant parameters for the scenarios of **mSPC2** and assigned field studies is given in the following overview table.

mSPC2: 1.0% H_2O_2 scenario and field study	Application rate	Disinfected surface	Room volume	Application duration	Exposure duration	Ventilation regime	surface-to-room volume ratio	Reference to relevant guidance

mSPC3
Products of **mSPC3** (soluble concentrates) contain hydrogen peroxide at a concentration of 35.0-36.75% and realistic worst-case scenarios comprise disinfection tasks in food and beverage industry settings such as disinfection of packaging or CIP applications. Application is done by constant automated dosing into the closed system.

- Scenario I: Disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)
- Scenario II: Disinfection by CIP (closed process)

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC3** is estimated by modelling. [redacted]. Relevant scenarios are listed in the table "list of scenarios" below.

Due to the classification with H302 (Acute (oral) Tox. 4), H315 (Skin Irrit. 2), H318 (Eye Dam. 1) and H335 (STOT SE 3), a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3).

A summary of intended uses and relevant application scenarios for **mSPC3** is given in the following overview table along with the HHRA strategy.

PT4: Food and beverage industry (food contact)	**mSPC3**
H_2O_2 concentration	35.0-36.75%
Formulation type	SL
C&L	H302 H315 H318 H335 H412
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 3.1 – (PT4) Disinfection of food contact surfaces in food and beverage industry by automated dipping or spraying in closed system	
Scenario I: Disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process) - PT4	[redacted]
Use # 3.2 – (PT4) Disinfection of food contact surfaces in food and beverage industry by CIP	
Scenario II: Disinfection by CIP (closed process) - PT4	Modelling

mSPC6

Products of **mSPC6** (RTU liquids) contain hydrogen peroxide at a concentration of 2.0-2.3% and realistic worst-case scenarios comprise disinfection tasks in food and beverage industry settings such as disinfection of small surfaces. Relevant surface areas and application rates are given in brackets. Products of mSPC6 contain the SoC n-propanol (nPA, max. 17.5%).

- Scenario I: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe ([redacted])

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC6** is estimated by a field study. Regarding harmonised parameters that have been considered for the assignment of the relevant field study, please refer to mSPC2.

[redacted]

Estimated exposure towards hydrogen peroxide for intended uses of **mSPC6** is thus well covered by the

[redacted]

as all relevant parameters of the scenario fall within the boundaries of this field study and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

Exposure towards the **SoC n-propanol** associated to usage of products of **mSPC6** is estimated by modelling. Relevant scenarios are listed in the table "list of scenarios" below.

Due to the classification with H318 (Eye Dam. 1) and the SoC n-propanol, a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3).

A summary of intended uses and relevant application scenarios for **mSPC6** is given in the following overview table along with the HHRA strategy.

PT4: Food and beverage industry (food contact)	**mSPC6**
H_2O_2 concentration	2.0-2.3%
Formulation type	RTU liquids
C&L	H226 H318
SoC	n-propanol
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 6.2 – (PT4) Disinfection of food contact surfaces in food and beverage industry by spraying using trigger sprayer and dry wipe	
Scenario I: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe - PT4 **- hydrogen peroxide**	[redacted]
Scenario II: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe - PT4 **- SoC n-propanol** (addressed by scenario 2.4)	Modelling

A comparison of relevant parameters for the scenarios of **mSPC6** and assigned field studies is given in the following overview table.

mSPC6: 2.0-2.3% H_2O_2 scenario and field study	Application rate	Disinfected surface	Room volume	Application duration	Exposure duration	Ventilation regime	surface-to-room volume ratio	Reference to relevant guidance
[redacted]								

mSPC8 (covered by mSPC2)
Products of **mSPC8** (RTU wipes) contain hydrogen peroxide at a concentration of 1.0% and realistic worst-case scenarios disinfection tasks in food and beverage industry settings such as disinfection of small surfaces. Relevant surface areas and application rates are given in brackets. Products of mSPC12 contain the SoC n-propanol (nPA, max. 17.5%).

- Scenario I: Disinfection of small surfaces by wiping using impregnated RTU wipes ([redacted]), covered by mSPC2

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC8** is estimated by field studies. The same considerations as for mSPC2 apply.

As products of mSPC8 are not classified, no qualitative local assessment is triggered.

A summary of intended uses and relevant application scenarios for **mSPC8** is given in the following overview table along with the HHRA strategy.

PT4: Food and beverage industry (food contact)	**mSPC8**
H_2O_2 concentration	1.0%
Formulation type	RTU wipes
C&L	-
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 8.2 – (PT4) Disinfection of food contact surfaces in food and beverage industry by wiping using impregnated RTU wipes	
Scenario I: Disinfection of small surfaces in food processing plant by wiping using impregnated RTU wipes - PT4 (covered by mSPC2)	[redacted]

mSPC12 (covered by mSPC6)
Products of **mSPC12** (RTU wipes) contain hydrogen peroxide at a concentration of 2.0-2.3% and realistic worst-case scenarios comprise disinfection tasks in food and beverage industry settings such as disinfection of small surfaces. Relevant surface areas and application rates are given in brackets.

- Scenario I: Disinfection of small surfaces by wiping using impregnated RTU wipes ([redacted]), covered by mSPC6

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC12** is estimated by field studies. The same considerations as for mSPC6 apply.

Exposure towards the **SoC n-propanol** associated to usage of products of **mSPC12** is estimated by modelling. The assessment is covered by mSPC6.

Due to the classification with H318 (Eye Dam. 1) and the SoC n-propanol, a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3). A separate assessment is triggered as risk mitigation measures are different for RTU liquids (mSPC6) and RTU wipes (mSPC12).

A summary of intended uses and relevant application scenarios for **mSPC12** is given in the following overview table along with the HHRA strategy.

PT4: Food and beverage industry (food contact)	**mSPC12**
H_2O_2 concentration	2.0-2.3%
Formulation type	RTU wipes
C&L	H226 H318
SoC	n-propanol
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 12.2 – (PT4) Disinfection of food contact surfaces in food and beverage industry by wiping using impregnated RTU wipes	
Scenario I: Disinfection of small surfaces in food processing plant by wiping using impregnated RTU wipes - PT4 **- hydrogen peroxide** (covered by mSPC6)	[redacted]
Scenario II: Disinfection of small surfaces in food processing plant by wiping using impregnated RTU wipes - PT4 **- SoC n-propanol** (covered by mSPC6)	(Modelling) covered by mSPC6

mSPC2, mSPC3
mSPC6 (covering mSPC12) for SoC n-propanol (nPA)

List of scenarios – Setting 3: Food and beverage industry – PT4

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
1	**M/L phase**		
1.2 (SoC)	M/L phase: Manual mixing and loading of RTU products (trigger sprayer)	Primary exposure (SoC n-propanol) Dermal and inhalation exposure towards the RTU product during manual mixing and loading, i.e. during filling the RTU product into a trigger sprayer.	professionals
1.3	M/L phase: Automated mixing and loading of soluble concentrates (aseptic filling, CIP)	Primary exposure Dermal and inhalation exposure towards the concentrated product during automated mixing and loading, i.e. during connecting of transfer lines.	professionals
1.4	M/L phase: Automated mixing and loading of RTU products (fixed installed spraying)	Primary exposure Dermal and inhalation exposure towards the RTU product during automated mixing and loading, i.e. during connecting of transfer lines.	professionals
2	**Application phase**		
2.1	Application phase: Automated disinfection application in industrial process equipment by fixed installed spraying	Primary exposure Industrial process equipment is automatically disinfected by fixed installed spraying. Application is outside food production time when no personnel is present. Treated areas are well ventilated until production starts again. Therefore, there is no primary exposure of the professional.	professionals, no exposure
2.2	Application phase: Disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)	Primary exposure Packaging is disinfected by fully automated dipping or spraying under aseptic conditions. Aseptic filling takes place in a closed and vented system. Nevertheless, exposure of the professional has been assessed.	professionals

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
2.3	Application phase: Disinfection by CIP (closed process)	Primary exposure The disinfectant is automatically pumped through the pipes, tanks or other machines. The system is closed, therefore, there is no primary exposure of the professional.	professionals, no exposure
2.4 (SoC)	Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe	Primary exposure (SoC n-propanol) Dermal and inhalation exposure towards the RTU product during disinfection of small food contact surfaces (e.g. tables, cutting boards, conveyor belts) food processing plants, by spraying using RTU trigger sprayer and dry wipe.	professionals
3	**Post-application phase**		
3.1	Post-application phase: Maintenance of industrial process equipment for fixed installed spraying	Primary exposure Dermal and inhalation exposure towards the concentrated product during maintenance tasks such as manual cleaning or repair tasks. Scheduled maintenance is done outside food production time when no personnel is present. Treated areas are well ventilated until production starts again. Therefore, there is no primary exposure of the professional.	professionals, no exposure
3.2	Post-application phase: Maintenance of packaging (aseptic filling) machine	Primary exposure Dermal and inhalation exposure towards the concentrated product during maintenance tasks such as manual cleaning or repair tasks.	professionals
3.3	Post-application phase: Rinsing of CIP installations	Primary exposure After application, the CIP system is thoroughly rinsed with potable water. The system is closed, therefore, there is no exposure of the professional.	professionals, no exposure
3.4 (SoC)	Post-application phase: Cleaning of spray equipment (trigger sprayer)	Primary exposure (SoC n-propanol) Dermal and inhalation exposure towards the RTU product during cleaning of spray equipment (trigger sprayer). During cleaning tasks, the disinfectant solution is highly diluted. Exposure is thus covered by the application phase.	professional, covered by 2.4

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
4	**Secondary exposure of professional bystanders**		
4.1	Secondary inhalation exposure of professional bystanders during automated disinfection application in industrial process equipment by fixed installed spraying	Secondary exposure Inhalation exposure of professional bystanders towards the RTU product during automated disinfection application in industrial process equipment by fixed installed spraying. Application is outside food production time when no personnel is present. Treated areas are well ventilated until production starts again. Therefore, there is no secondary exposure of the professional.	professional bystander, no exposure
4.2	Secondary inhalation exposure of professional bystanders during disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)	Secondary exposure Inhalation exposure of professional bystanders towards the concentrated product during packaging (aseptic filling) by fully automated dipping or spraying. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.2.	professional bystander, covered by 2.2
4.3	Secondary inhalation exposure of professional bystanders during disinfection by CIP (closed process)	Secondary exposure Inhalation exposure of professional bystanders towards the concentrated product during disinfection by CIP (closed process). The system is closed, therefore, there is no secondary exposure of the professional.	professional bystander, no exposure
4.4 (SoC)	Secondary inhalation exposure of professional bystanders during disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe	Secondary exposure (SoC n-propanol) Inhalation exposure of professional bystanders towards the RTU product during disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.4.	professional bystander, covered by 2.4
5.	**Secondary exposure of general public**		

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
5.1	Secondary inhalation exposure of general public	Not relevant.	General public

Industrial exposure

Not relevant as production and formulation of products in question is addressed under other EU legislations (e.g. Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work) and not repeated under Biocidal Products Regulation 528/2012 as agreed at Biocides Technical Meeting TMI06.

Professional exposure

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol
The professional user fills the RTU product – containing the SoC n-propanol (nPA) – into a trigger sprayer. Re-filling of a trigger sprayer is done in the same way. Exposure towards the active substance hydrogen peroxide is covered by the worst-case scenario 1.2 for mixing and loading of RTU products. During the related steps, dermal and inhalation exposure may occur. The dermal uptake has been estimated with a generic model based on the transdermal flux in line with the nPA AR considering exposure of the palms of both hands (410 cm^2). For the transdermal flux concept, the task duration is needed as input parameter which has been set to the emission duration of 0.25 min. The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model according to WGVII2018_TOX_8-2, scenario D. Mixing and loading/refilling. The inhalation exposure towards aerosols during mixing and loading tasks is considered negligible. All relevant input parameters are listed in the table below.

	Parameters acc. to WGVII2018_TOX_8-2, scenario D	**Value**
Tier 1	Concentration of SoC – RTU product	17.5% nPA
	Concentration of SoC – in-use	17.5% nPA
	Density	0.98 g/mL
	Model for dermal exposure: n.r.	0.85 $mg/cm^2/h$

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol		
	Transdermal flux – nPA (nPA AR)	
	Task duration (emission duration)	0.25 min
	Area of exposure – palms of both hands (HEAdhoc 14)	410 cm^2
	Number of operations	1x/day
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration	0.75 min
	Molecular weight matrix ([redacted])	18 g/mol
	Product amount (half of the amount of the container content); worst-case packaging: 20 L bottle	9 800 g
	Weight fraction substance	17.5%
	Room volume (personal breathing zone)	1 m^3
	Ventilation rate (worst-case for unspecified room)	0.6/h
	Vapour pressure (nPA AR)	2760 Pa at 25°C
	Application temperature	25°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	constant
	Release area (opening of bottle)	20 cm^2
	Emission duration	0.25 min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 7.35E-05 Combined: 7.35E-05	2.42E-02	n.r.	2.43E-02

Further information and considerations on Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (trigger sprayer) – SoC n-propanol

During manual mixing and loading, the maximum concentration of hydrogen peroxide and n-propanol is 2.3% and 17.5% in mSPC6, respectively. With respect to local effects, this results in a classification with H318 (Eye Dam. 1) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 1.3 - M/L phase: Automated mixing and loading of soluble concentrates (aseptic filling, CIP)

Description of Scenario 1.3 - M/L phase: Automated mixing and loading of soluble concentrates (aseptic filling, CIP)
The container, drum or IBC containing the concentrated product is connected with the dosing unit of the packaging machine or CIP system via "connecting lines". During the related steps, dermal and inhalation exposure may occur, although for mixing/loading by connecting lines exposure is presumed negligible. Exposure calculations are presented for the sake of completeness. For the dermal route of exposure, a (semi-)quantitative assessment has been performed considering the maximum concentration of hydrogen peroxide from the mSPC range (36.75%). [redacted]

Scenario 1.3 - M/L phase: Automated mixing and loading of soluble concentrates (aseptic filling, CIP)

Description of Scenario 1.3 - M/L phase: Automated mixing and loading of soluble concentrates (aseptic filling, CIP)		
[redacted] Exposure estimates calculated with ART include both exposure towards aerosols and vapours. All relevant input parameters are listed in the table below.		
	Parameters acc. To [redacted] CAR	**Value**
Tier 1	Concentration of a.s. – concentrated product	36.75%
	Model for dermal exposure: n.r., (semi-)quantitative assessment	n.r.
	Number of operations	1x/day
	Model for inhalation exposure (aerosol+vapour): ADVANCED REACH TOOL 1.5	ART 1.5 model
	Total duration	15 min
	Non-exposure period	0 min
	Emission source	Near field
	Substance product type	Liquids
	Process temperature	293 K/20°C
	Vapour pressure (H_2O_2 AR)	214 Pa at 20°C
	Liquid mole fraction	0.24
	Activity coefficient	1 (default)
	Activity class	Falling liquids
	Situation ([redacted]); 1-10 L/min used as worst-case	Transfer of liquid product with flow of 1-10 L/min
	Containment level	Open process*
	Loading type	Submerged loading, where the liquid dispenser remains below the fluid level reducing the amount of aerosol formation
	Process fully enclosed?	No
	Effective housekeeping practices in place?	Yes
	Work area	Indoors

Scenario 1.3 - M/L phase: Automated mixing and loading of soluble concentrates (aseptic filling, CIP)

Description of Scenario 1.3 - M/L phase: Automated mixing and loading of soluble concentrates (aseptic filling, CIP)		
	Room size	Any size workroom
	Localised controls - primary	Medium level containment (99.00% reduction)**
	Localised controls - secondary	No localized controls (0.00% reduction)
	Ventilation rate	Only good natural ventilation
	Percentile	90th
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

* According to the note in ART, "Handling that reduces contact between product and adjacent air" does not include processes that are fully contained by localised controls. This means that "open process" needs to be selected if the localised control "containment – no extraction" is selected as parameter.

** According to the description in ART, physical containment or enclosure of the source of emission. The air within the enclosure is not actively ventilated or extracted. The enclosure is not opened during the activity. The material transfer is enclosed with the receiving vessel being docked or sealed to the source vessel. Examples include sealing heads, transfer containers and multiple o-rings. Inflatable packing head with continuous liner ensures a seal is maintained during the powder transfer and the continuous plastic liner prevents direct contact with the product. The correct type of tie off must be used.

Calculations for Scenario 1.3 - M/L phase: Automated mixing and loading of soluble concentrates (aseptic filling, CIP)

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 1.3	1	Combined: 0.035	36.75	n.r.	Inhalation: 0.035 Dermal: 36.75

Further information and considerations on Scenario 1.3 - M/L phase: Automated mixing and loading of soluble concentrates (aseptic filling, CIP)

During automated mixing and loading, the maximum concentration of hydrogen peroxide is 36.75%. With respect to local effects, this results in a classification with H302 (Acute (oral) Tox. 4), H315 (Skin Irrit. 2), H318 (Eye Dam. 1) and H335 (STOT SE 3) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 1.4 – M/L phase: Automated mixing and loading of RTU products (fixed installed spraying)

Description of Scenario 1.4 – M/L phase: Automated mixing and loading of RTU products (fixed installed spraying)

The container, drum or IBC containing the RTU product is connected with the dosing unit of the spraying system via "connecting lines".

During the related steps, dermal and inhalation exposure may occur, although for mixing/loading by connecting lines exposure is presumed negligible. Exposure calculations are presented for the sake of completeness.

For the dermal route of exposure, a (semi-)quantitative assessment has been performed considering the maximum concentration of hydrogen peroxide from the mSPC range (36.75%).

[redacted]

Exposure estimates calculated with ART include both exposure towards aerosols and vapours.

All relevant input parameters are listed in the table below.

	Parameters acc. to [redacted] CAR	**Value**
Tier 1	Concentration of a.s. – RTU product	1.0%
	Concentration of a.s. – in-use	1.0%
	Model for dermal exposure: n.r.,	n.r.

Scenario 1.4 – M/L phase: Automated mixing and loading of RTU products (fixed installed spraying)

Description of Scenario 1.4 – M/L phase: Automated mixing and loading of RTU products (fixed installed spraying)		
	(semi-)quantitative assessment	
	Number of operations	1x/day
	Model for inhalation exposure (aerosol+vapour): ADVANCED REACH TOOL 1.5	ART 1.5 model
	Total duration	15 min
	Non-exposure period	0 min
	Emission source	Near field
	Substance product type	Liquids
	Process temperature	293 K/20°C
	Vapour pressure (H_2O_2 AR)	214 Pa at 20°C
	Liquid mole fraction	0.01
	Activity coefficient	1 (default)
	Activity class	Falling liquids
	Situation ([redacted]); 10-100 L/min used as worst-case	Transfer of liquid product with flow of 10-100 L/min
	Containment level	Open process*
	Loading type	Submerged loading, where the liquid dispenser remains below the fluid level reducing the amount of aerosol formation
	Process fully enclosed?	No
	Effective housekeeping practices in place?	Yes
	Work area	Indoors
	Room size	Any size workroom
	Localised controls - primary	Medium level containment (99.00% reduction)**
	Localised controls - secondary	No localized controls (0.00% reduction)
	Ventilation rate	Only good natural ventilation
	Percentile	90th
	No PPE (gloves)	0% protection

Scenario 1.4 – M/L phase: Automated mixing and loading of RTU products (fixed installed spraying)

Description of Scenario 1.4 – M/L phase: Automated mixing and loading of RTU products (fixed installed spraying)		
	No RPE (mask/respirator)	0% protection

* According to the note in ART, "Handling that reduces contact between product and adjacent air" does not include processes that are fully contained by localised controls. This means that "open process" needs to be selected if the localised control "containment – no extraction" is selected as parameter.

** According to the description in ART, physical containment or enclosure of the source of emission. The air within the enclosure is not actively ventilated or extracted. The enclosure is not opened during the activity. The material transfer is enclosed with the receiving vessel being docked or sealed to the source vessel. Examples include sealing heads, transfer containers and multiple o-rings. Inflatable packing head with continuous liner ensures a seal is maintained during the powder transfer and the continuous plastic liner prevents direct contact with the product. The correct type of tie off must be used.

Calculations for Scenario 1.4 - M/L phase: Automated mixing and loading of RTU products (fixed installed spraying)

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 1.4	1	Combined: 0.0048	1.0	n.r.	Inhalation: 0.0048 Dermal: 1.0

Further information and considerations on Scenario 1.4 - M/L phase: Automated mixing and loading of RTU products (fixed installed spraying)

During automated mixing and loading, the maximum concentration of hydrogen peroxide is 1.0%. With respect to local effects, this results in no classification triggering no qualitative exposure and risk assessment.

Scenario 2.1 - Application phase: Automated disinfection application in industrial process equipment by fixed installed spraying

Description of Scenario 2.1 - Application phase: Automated disinfection application in industrial process equipment by fixed installed spraying
Industrial process equipment is automatically disinfected by fixed installed spraying.  Application is outside food production time, therefore, there is no primary exposure of the professional. All relevant input parameters are listed in the table below.

	Parameters	**Value**

Scenario 2.1 - Application phase: Automated disinfection application in industrial process equipment by fixed installed spraying

Description of Scenario 2.1 - Application phase: Automated disinfection application in industrial process equipment by fixed installed spraying		
Tier 1	Concentration of a.s. – RTU product	1.0%
	Concentration of a.s. – in-use	1.0%
	Density	1.00 g/mL
	Model for dermal exposure: n.r., (semi-)quantitative assessment	n.r.
	Application rate (applicant data)	[redacted]
	Application frequency (applicant data)	[redacted]
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration	[redacted]
	Molecular weight matrix ([redacted])	18 g/mol
	Product amount	[redacted]
	Weight fraction substance	1.0%
	Room volume (applicant data)	[redacted]
	Ventilation rate (nPA AR), worst-case	[redacted]
	Vapour pressure (H_2O_2 AR)	299 Pa at 25°C
	Application temperature	25°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	increasing
	Release area (applicant data)	[redacted]
	Application duration (applicant data)	[redacted]
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 2.1 - Application phase: Automated disinfection application in industrial process equipment by fixed installed spraying

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 2.1	1	Aerosol: n.r. Vapour: 0.94 Combined: 0.94	1.0	n.r.	Inhalation: 0.94 Dermal: 1.0

Further information and considerations on Scenario 2.1 - Application phase: Automated disinfection application in industrial process equipment by fixed installed spraying

During fixed installed spraying, the maximum concentration of hydrogen peroxide is 1.0%. With respect to local effects, this results in no classification triggering no qualitative exposure and risk assessment.

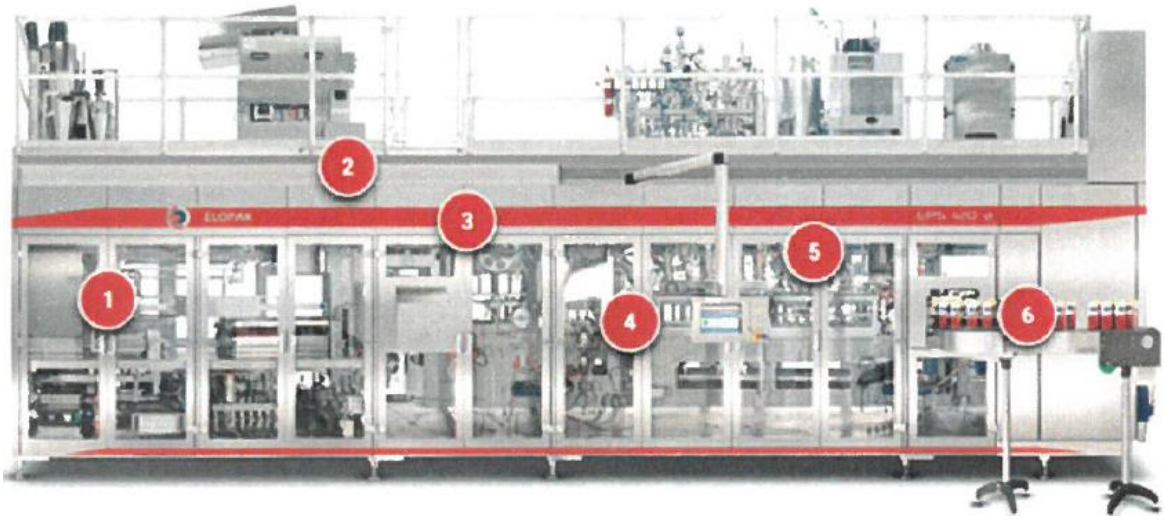
Scenario 2.2 - Application phase: Disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)

Description of Scenario 2.2 - Application phase: Disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)

Packaging is automatically disinfected under closed process conditions before food or beverages are filled in. This process is commonly known as aseptic filling.

Non-folded beverage cartons are dipped into a dipping bath before they are folded to a box whereas bottles are disinfected by spraying.

The principle of the process is described based on the below schematic ([redacted]) for aseptic filling of beverage cartons, however, is almost identical for filling bottles:



The empty, non-folded packaging (paper board sleeves) enters the machine in zone 1, with a closure being added in one 2. From there, the folding of the beverage carton takes place in zone 3 and 4. In the aseptic chamber in zone 5, H_2O_2 is passed over a heating element to generate a hot H_2O_2 vapour, which is transported by filtered compressed air into the containers in zone 6. After sterilisation, hot, sterile drying air is blown into the packaging to remove peroxide vapour from the package and reduce H_2O_2 residuals to acceptable levels.
As part of the process validation, each sold packaging machine gets validated according to industry standards prior to going into operation after installation.

As contamination needs to be avoided at all costs, no manual tasks of professional users are involved in routine operation. Most importantly, the dipping bath or spraying chamber is not opened manually during the process. The air in the aseptic chamber is automatically exhausted by strong LEV.

Operation of aseptic filling machines is strictly controlled, and process equipment is carefully inspected. Rooms are highly ventilated according to industry standards; vapours coming out of the machines are measured by inspecting authorities. Some newer machines do have direct reading instruments integrated which monitor the H_2O_2 concentration in ambient air.

Scenario 2.2 - Application phase: Disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)

Description of Scenario 2.2 - Application phase: Disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)
Ventilation systems are case-by-case installation at the workplaces but generally include strong ventilation inside the machine (LEV) before the operator gets the consensus to open the doors of the aseptic area, along the machines (LEV) and in the industrial halls (technical ventilation). [redacted], there is no harmonised exposure scenario (application phase) available for aseptic packaging. [redacted] [redacted] [redacted] [redacted] Dermal exposure is not expected to occur during normal operation of the packaging machine.

Scenario 2.3 - Application phase: Disinfection by CIP (closed process)

Description of Scenario 2.3 - Application phase: Disinfection by CIP (closed process)
The disinfectant is automatically pumped through the pipes, tanks or other machines. The system is closed, therefore, there is no primary exposure of the professional.

Scenario 2.4 - Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe – SoC n-propanol

Description of Scenario 2.4 - Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe – SoC n-propanol
The professional user sprays the disinfectant – containing the SoC n-propanol (nPA) – onto the surface and finally wipes off with a dry wipe or leaves to air dry.      During the related steps, dermal and inhalation exposure may occur. The dermal uptake has been estimated with a generic model based on the transdermal flux in line with the nPA AR considering exposure of the palms of both hands (410 cm^2). For the transdermal flux concept, the task duration is needed as input parameter which has been set to the evaporation time of the volatile nPA (at 30°C) in line with the approach generally followed for hand disinfection (HEAdhoc Recommendation 9).       The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model. The inhalation exposure towards aerosols is considered negligible due to MMAD of 135 µm and minor fraction of particles with MMAD < 50 µm. Product amount was calculated as follows (application rate x disinfected surface x density): 10 mL/m^2 x 4.6 m^2 x 0.98 g/mL = 45 g All relevant input parameters are listed in the table below.

Scenario 2.4 - Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe – SoC n-propanol

Description of Scenario 2.4 - Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe – SoC n-propanol		
	Parameters acc. to nPA AR, scenario Disinfection for food processing machinery	**Value**
Tier 1	Concentration of SoC – RTU product	17.5% nPA
	Concentration of SoC – in-use	17.5% nPA
	Density	0.98 g/mL
	Application rate	10 mL/m^2
	Application frequency (applicant data)	4/day
	Transdermal flux – nPA	0.85 mg/cm^2/h
	Area of exposure – palms of both hands (HEAdhoc 14)	410 cm^2
	Task duration (= evaporation time of amount of nPA on skin)	4.4 sec
	Model for dermal exposure: Consumer product spraying and dusting model 2 – 2. Hand-held trigger spray	Hand/forearm: 36.1 mg/min Legs/feet/face: 9.7 mg/min
	Spray duration	5 min
	Vapour pressure ([redacted])	3849 Pa at 30°C
	Application temperature (skin temperature, HEAdhoc 9)	30°C
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration	120 min
	Molecular weight matrix ([redacted])	18 g/mol
	Product amount	45 g
	Weight fraction substance	17.5%
	Room volume (worst-case for volume around machine)	300 m^3
	Ventilation rate	20/h
	Vapour pressure	2760 Pa at 25°C
	Application temperature	25°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	increasing
	Release area	4.6 m^2

Scenario 2.4 - Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe – SoC n-propanol

Description of Scenario 2.4 - Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe – SoC n-propanol		
	Application duration	5 min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 2.4 - Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe – SoC n-propanol

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Scenario 2.4 (SoC)	1	Aerosol: n.r. Vapour: 0.1083 Combined: 0.1083	0.0284	n.r.	0.1368

Further information and considerations on Scenario 2.4 - Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe – SoC n-propanol

During trigger spraying and wiping, the maximum concentration of hydrogen peroxide and n-propanol is 2.3% and 17.5%, respectively. With respect to local effects, this results in a classification with H318 (Eye Dam. 1) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 3.1 - Post-application phase: Maintenance of industrial process equipment for fixed installed spraying

Description of Scenario 3.1 - Post-application phase: Maintenance of industrial process equipment for fixed installed spraying
Scheduled maintenance is generally done outside food production time when no personnel is present. Treated areas are well ventilated until production starts again. Therefore, there is no primary exposure of the professional.

Scenario 3.2 - Post-application phase: Maintenance of packaging (aseptic filling) machine

Description of Scenario 3.2 - Post-application phase: Maintenance of packaging (aseptic filling) machine
Proper installation and regular maintenance of aseptic filling machines according to industry standards are key factors for aseptic filling machines and may comprise tasks related to manual cleaning, technical incidents or repair. Regular cleaning of the aseptic chamber is generally done automatically to avoid any contamination. Should manual cleaning or technical measures become necessary, the aseptic chamber gets first rinsed with water, cooled down and hydrogen peroxide vapours are exhausted by strong LEV. Only then the operator gets the consensus to open the service door of the aseptic chamber. [redacted], there is no harmonised exposure scenario (post-application phase) available for aseptic packaging. [redacted] [redacted] [redacted] [redacted] During maintenance tasks, dermal exposure towards the concentrated product is also possible triggering the need for personal protective equipment including chemical gloves, protective coverall and eye protection.

Scenario 3.3 - Post-application phase: Rinsing of CIP installations

Description of Scenario 3.3 - Post-application phase: Rinsing of CIP installations
After application, the system is rinsed with water. The system is closed, therefore, there is no exposure of the professional.

Scenario 3.4 - Post-application phase: Cleaning of spray equipment (trigger sprayer) – SoC n-propanol

Description of Scenario 3.4 - Post-application phase: Cleaning of spray equipment (trigger sprayer) – SoC n-propanol
Dermal and inhalation exposure towards the RTU product may occur during cleaning of spray equipment (trigger sprayer). During cleaning tasks, the disinfectant solution is highly diluted. Exposure is thus covered by the application phase.

Scenario 4.1 - Secondary inhalation exposure of professional bystanders during automated disinfection application in industrial process equipment by fixed installed spraying

Description of Scenario 4.1 - Secondary inhalation exposure of professional bystanders during automated disinfection application in industrial process equipment by fixed installed spraying
Inhalation exposure of professional bystanders towards the RTU product may occur during automated disinfection application in industrial process equipment by fixed installed spraying. Application is outside food production time, therefore, there is no secondary exposure of the professional.

Scenario 4.2 - Secondary inhalation exposure of professional bystanders during disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)

Description of Scenario 4.2 - Secondary inhalation exposure of professional bystanders during disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)
Inhalation exposure of professional bystanders towards the concentrated product may occur during packaging disinfection (aseptic filling) by fully automated dipping or spraying. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.2.

Scenario 4.3 - Secondary inhalation exposure of professional bystanders during disinfection by CIP (closed process)

Description of Scenario 4.3 - Secondary inhalation exposure of professional bystanders during disinfection by CIP (closed process)
Inhalation exposure of professional bystanders towards the RTU product may occur during disinfection by CIP (closed process). The system is closed, therefore, there is no secondary exposure of the professional.

Scenario 4.4 - Secondary inhalation exposure of professional bystanders during disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe

Description of Scenario 4.4 - Secondary inhalation exposure of professional bystanders during disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe
Inhalation exposure of professional bystanders towards the RTU product may occur during disinfection of small food-contact surfaces in food processing plants by spraying using trigger sprayer and dry wipe. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.4.

*Combined scenarios – **H_2O_2***

Not relevant.

The active substance only exerts local effects and potential systemic effects are secondary to its direct irritating reactivity. Hence, combination of different work tasks (i.e. M/L, application, post-application phase) is not necessary. Instead, relevant scenarios per intended use are listed separately:

Summary table: local exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Use # 2.4 – (PT4) Disinfection of food contact surfaces in food and beverage industry by spraying using fixed installed sprayer					
Scenario 1.4	1	Combined: 0.0048	1.0	n.r.	Inhalation: 0.0048 Dermal: 1.0
Scenario 2.1	1	Combined: 0.94	1.0	n.r.	Inhalation: 0.94 Dermal: 1.0
Scenario 3.1	1	Post-application outside food processing time, no exposure			
Scenario 4.1	1	Application outside food processing time, no exposure			

Summary table: local exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Use # 3.1 – (PT4) Disinfection of food contact surfaces in food and beverage industry by automated dipping or spraying in closed system					
Scenario 1.3	1	Combined: 0.035	36.75	n.r.	Inhalation: 0.035 Dermal: 36.75
Scenario 2.2	1	[redacted]	36.75	n.r.	Inhalation: [redacted] Dermal: 36.75
Scenario 3.2	1	[redacted]	36.75	n.r.	Inhalation: [redacted] Dermal: 36.75
Scenario 4.2	1	[redacted]	n.r.	n.r.	Inhalation: [redacted] Dermal: n.r.

Summary table: local exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Use # 3.2 – (PT4) Disinfection of food contact surfaces in food and beverage industry by CIP					
Scenario 1.3	1	Combined: 0.035	36.75	n.r.	Inhalation: 0.035 Dermal: 36.75
Scenario 2.3	1	Closed system, no exposure			
Scenario 3.3	1	Closed system, no exposure			
Scenario 4.3	1	Closed system, no exposure			

Combined scenarios – **SoC nPA**

The SoC exerts systemic effects. Hence, different work tasks (i.e. M/L, application, post-application phase) have been combined.

Summary table: local exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Use # 6.2 – (PT4) Disinfection of food contact surfaces in food and beverage industry by spraying using trigger sprayer					
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 7.35E-05 Combined: 7.35E-05	2.42E-02	n.r.	2.43E-02
Scenario 2.4 (SoC)	1	Aerosol: n.r. Vapour: 0.1083 Combined: 0.1083	0.0284	n.r.	0.1368
Scenario 3.4 (SoC)	1	Negligible exposure covered by the application phase			
Scenario 4.4 (SoC)	1	Aerosol: n.r. Vapour: 0.1083 Combined: 0.1083	n.r.	n.r.	0.1083
Combined 1.2 + 2.4 (SoC)		Aerosol: n.r. Vapour: 0.1084 Combined: 0.1084	0.0526	n.r.	0.161

Non-professional exposure

Not relevant.

Exposure of the general public

Not relevant.

Products are applied in food processing plants with no access of the general public.

Monitoring data

Summary of field studies is provided in the confidential Annex.

Dietary exposure

List of scenarios

Summary table of main representative dietary exposure scenarios			
Scenario number	**Type of use**	**Description of scenario**	**Subject of exposure**
6.1	Not relevant	Livestock exposure assessment and dietary exposure of general public	Not relevant
7.1	Professional use in food and beverage industry	Dietary exposure assessment of general public via residues from automated disinfection application in industrial process equipment by fixed installed spraying	(processed) food, beverages
7.2	Professional use in food and beverage industry	Dietary exposure assessment of general public via residues from disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)	(processed) food, beverages
7.3	Professional use in food and beverage industry	Dietary exposure assessment of general public via residues from disinfection by CIP (closed process)	(processed) food, beverages
7.4	Professional use in food and beverage industry	Dietary exposure assessment of general public via residues from disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe	(processed) food, beverages
7.4	Professional use in food and beverage industry	Dietary exposure assessment of general public via residues from disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe **- SoC n-propanol**	(processed) food, beverages

Information of non-biocidal use of the active substance

See life sciences cleanroom setting 1 above.

Estimating Livestock Exposure to Active Substances used in Biocidal Products

Not relevant.

Estimating transfer of biocidal active substances into foods as a result of professional and/or industrial application(s)

H_2O_2

Scenario 7.1 - Dietary exposure assessment of general public via residues from automated disinfection application in industrial process equipment by fixed installed spraying

Scenario 7.2 - Dietary exposure assessment of general public via residues from disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)

Scenario 7.3 - Dietary exposure assessment of general public via residues from disinfection by CIP (closed process)

Scenario 7.4 - Dietary exposure assessment of general public via residues from disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe

Scenario 7.1 - Dietary exposure assessment of general public via residues from automated disinfection application in industrial process equipment by fixed installed spraying

Scenario 7.2 - Dietary exposure assessment of general public via residues from disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)

Scenario 7.3 - Dietary exposure assessment of general public via residues from disinfection by CIP (closed process)

Scenario 7.4 - Dietary exposure assessment of general public via residues from disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe

No residues expected.

[redacted]

SoC nPA

Scenario 7.4 - Dietary exposure assessment of general public via residues from disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe ***- SoC n-propanol***

Scenario 7.4 - Dietary exposure assessment of general public via residues from disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe - SoC n-propanol

No residues expected.

[redacted]

Estimating transfer of biocidal active substances into foods as a result of non-professional use

Not relevant.

Exposure associated with production, formulation and disposal of the biocidal product

See life sciences cleanroom setting 1 above.

Aggregated exposure

Not relevant. [redacted]

Setting 4: Teat disinfection – PT3

Products for teat disinfection are RTU liquids assigned to **mSPC4** with H_2O_2 concentration of 1.4-1.61%. They are intended to be applied in the pre-milking phase by manual dipping using a dip or foam cup. Relevant animals to be treated comprise dairy cows, buffaloes, goats and sheep. Application information is given in brackets. Products of mSPC4 contain the SoCs citric acid (max. 0.9%), 2-phenoxyethanol (2-PE, max. 17.5%), sodium lauryl sulfate (max. 3.88%), sodium caprylolglutamate (max. 2.0%) and sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, max. 1.12%).

- Scenario I: Teat disinfection pre-milking by manual dipping using a dip/foam cup - PT3 (4 mL/cow/pre-milking application, 2 milking events/day, 82 cows per milking)

Exposure towards **hydrogen peroxide** and the **SoC 2-phenoxyethanol** associated to usage of products of **mSPC4** is estimated by modelling according to HEAdhoc Recommendation 13 on Exposure Assessment of Teat Disinfection Products for Veterinary Hygiene (PT3). Relevant scenarios are listed in the table "list of scenarios" below.

The following assessment is based on the assessment for dairy cows, but it is considered that exposure of a milker of dairy cows covers the exposure of a milker of buffaloes, sheep and goats for the following reasons ( ):

Due to the classification with H319 (Eye Irrit. 2) and the SoCs sodium lauryl sulfate, sodium caprylolglutamate and sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS), a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3).

Exposure towards the **SoC citric acid** (0.9%) will be addressed qualitatively .

A summary of intended uses and relevant application scenarios for **mSPC4** is given in the following overview table along with the HHRA strategy.

PT3: Teat disinfection	mSPC4
H_2O_2 concentration	1.4-1.61%
Formulation type	RTU liquids
C&L	H319
SoC	citric acid 2-phenoxyethanol sodium lauryl sulfate sodium caprylolglutamate sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (Texapon ALS)
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 4.1 – (PT3) Teat dips for pre-milking disinfection	
Scenario I: Teat disinfection pre-milking by manual dipping using a dip/foam cup - PT3 - **hydrogen peroxide**	[redacted]
Scenario I: Teat disinfection pre-milking by manual dipping using a dip/foam cup - PT3 - **SoC 2-phenoxyethanol**	

mSPC4 (hydrogen peroxide and SoC 2-phenoxyethanol)

List of scenarios – Setting 4: Teat disinfection – PT3

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
1.	**M/L phase**		
1.2	M/L phase: Manual mixing and loading of RTU products (dip/foam cup)	The RTU product is filled undiluted into the reservoir of a dip/foam cup. Re-filling of a dip/foam cup is done in the same way and covered by this scenario.	professionals
1.2 (SoC)	M/L phase: Manual mixing and loading of RTU products (dip/foam cup)	The RTU product is filled undiluted into the reservoir of a dip/foam cup. Re-filling of a dip/foam cup is done in the same way and covered by this scenario.	professionals
2.	**Application phase**		
2.1	Application phase: Teat disinfection pre-milking by manual dipping using a dip/foam cup	Before milking, the dip/foam cup is put over each teat from below making sure that the full length of each teat is immersed into the disinfectant. Exposure is covered by scenario 1.2.	professionals, covered by 1.2

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
2.1 (SoC)	Application phase: Teat disinfection pre-milking by manual dipping using a dip/foam cup	Before milking, the dip/foam cup is put over each teat from below making sure that the full length of each teat is immersed into the disinfectant. Exposure is covered by scenario 1.2 (SoC).	professionals, covered by 1.2 (SoC)
3.	**Post-application phase**		
3.1	Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking	The teats which have been treated with a disinfectant shortly before are carefully cleaned by wiping with a dry cloth immediately before milking.	professionals
3.1 (SoC)	Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking	The teats which have been treated with a disinfectant shortly before are carefully cleaned by wiping with a dry cloth immediately before milking.	professionals
3.2	Post-application phase: Cleaning of equipment after application (dip/foam cup)	After application, the reservoir is emptied, and the entire dip or foam equipment is cleaned with water. Only a small amount of product will remain in the application equipment, which will be further diluted by the wash-water.	professionals
3.2 (SoC)	Post-application phase: Cleaning of equipment after application (dip/foam cup)	After application, the reservoir is emptied, and the entire dip or foam equipment is cleaned with water. Only a small amount of product will remain in the application equipment, which will be further diluted by the wash-water.	professionals
4.	**Secondary exposure of professional bystanders**		
4.1	Secondary inhalation exposure of professional bystanders during teat disinfection	Inhalation exposure of professional bystanders towards the RTU product during manual teat disinfection using a dip/foam cup is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Exposure is covered by scenario 2.1.	professional bystander, covered by 2.1
4.1 (SoC)	Secondary inhalation exposure of	Inhalation exposure of professional bystanders towards the RTU product	professional bystander,

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
	professional bystanders during teat disinfection	during manual teat disinfection using a dip/foam cup is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Exposure is covered by scenario 2.1.	covered by 2.1 (SoC)
5.	**Secondary exposure of general public**		
5.1	Secondary inhalation exposure of general public	Not relevant.	General public

Industrial exposure

Not relevant as production and formulation of products in question is addressed under other EU legislations (e.g. Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work) and not repeated under Biocidal Products Regulation 528/2012 as agreed at Biocides Technical Meeting TMI06.

Professional exposure

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup)

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup)
The professional user fills the RTU product into the reservoir of a dip/foam cup. The cup needs to be pressed until foam is generated. Re-filling is done in the same way. During the related steps, dermal and inhalation exposure may occur. For the dermal route of exposure, a (semi-)quantitative assessment has been performed considering the maximum concentration of hydrogen peroxide from the mSPC range (1.61%). The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model according to HEAdhoc Recommendation 13 (vers. 2, March 2017), scenario 2. The inhalation exposure towards aerosols during mixing and loading tasks is considered negligible. [redacted], molecular weight matrix has been calculated to be 22 g/mol [redacted].

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup)

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup)		
All relevant input parameters are listed in the table below.		
	Parameters acc. to HEAdhoc 13, scenario 2	**Value**
Tier 1	Concentration of a.s. – RTU product	1.61%
	Concentration of a.s. – in-use	1.61%
	Density	1.05 g/mL
	Model for dermal exposure: n.r., (semi-)quantitative assessment	n.r.
	Number of operations	1x/day
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration	0.75 min
	Molecular weight matrix ([redacted])	22 g/mol
	Product amount (half of the amount of the container content); worst-case packaging: 20 L canister	10 500 g
	Weight fraction substance	1.61%
	Room volume (personal breathing zone)	1 m^3
	Ventilation rate	4/h
	Vapour pressure (H_2O_2 AR)	214 Pa at 20°C
	Application temperature	20°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	constant
	Release area (opening of bottle)	20 cm^2
	Emission duration	0.25 min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup)

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 1.2	1	Aerosol: n.r. Vapour: 0.0021 Combined: 0.0021	1.61	n.r.	Inhalation: 0.0021 Dermal: 1.61

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup) – SoC 2-phenoxyethanol

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup) – SoC 2-phenoxyethanol
The professional user fills the RTU product into the reservoir of a dip/foam cup. The cup needs to be pressed until foam is generated. Re-filling is done in the same way. During the related steps, dermal and inhalation exposure may occur. For the dermal route of exposure, no (semi-)quantitative assessment is deemed necessary according to the draft CAR on 2-phenoxyethanol. The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model according to HEAdhoc Recommendation 13 (vers. 2, March 2017), scenario 2. The inhalation exposure towards aerosols during mixing and loading tasks is considered negligible. [redacted], molecular weight matrix has been calculated to be 22 g/mol [redacted]. In addition to the local assessment, a systemic assessment for the dermal and inhalation (vapour) route of exposure has been performed. All relevant input parameters are listed in the table below.

	Parameters acc. to HEAdhoc 13, scenario 2	**Value**
Tier 1	Concentration of SoC – RTU product	0.9%
	Concentration of SoC – in-use	0.9%
	Density	1.05 g/mL
	Model for dermal exposure: n.r. for local assessment	n.r.
	Number of operations	1x/day

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup) – SoC 2-phenoxyethanol

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup) – SoC 2-phenoxyethanol		
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration	0.75 min
	Molecular weight matrix ([redacted])	22 g/mol
	Product amount (half of the amount of the container content); worst-case packaging: 20 L canister	10 500 g
	Weight fraction substance	0.9%
	Room volume (personal breathing zone)	1 m^3
	Ventilation rate	4/h
	Vapour pressure (2-PE CAR)	1.4 Pa at 20°C
	Application temperature	20°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	constant
	Release area (opening of bottle)	20 cm^2
	Emission duration	0.25 min
	Systemic assessment	
	Dermal absorption	75%
	Model for dermal exposure: Mixing and Loading model 4 (for < 1 L handled per day; 4 mL/cow/appl. x 2 milking events/day x 82 cows/milking)	0.01 mL/8 h day
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup) – SoC 2-phenoxyethanol

local assessment

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 7.80E-06 Combined: 7.80E-06 8 h-TWA: 1.22E-08	n.r.	n.r.	Inhalation: 7.80E-06 8 h-TWA: 1.22E-08 Dermal: n.r.

systemic assessment

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 2.050E-09 Combined: 2.050E-09	1.18E-03	n.r.	1.18E-03

Further information and considerations on Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup) – hydrogen peroxide and SoC 2-phenoxyethanol

During manual mixing and loading, the maximum concentration of hydrogen peroxide is 1.61%. Maximum concentrations of SoCs are: sodium lauryl sulfate (3.88%), sodium caprylolglutamate (2.0%) and sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, 1.12%). With respect to local effects, this results in a classification with H319 (Eye Irrit. 2) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 2.1 - Application phase: Teat disinfection pre-milking by manual dipping using a dip/foam cup

Description of Scenario 2.1 - Application phase: Teat disinfection pre-milking by manual dipping using a dip/foam cup
Before milking, the teat is dipped into the cup. According to scenario 4 of HEAdhoc Recommendation 13 (vers. 2, March 2017), dermal exposure during use of the dip cups is not expected based on the design of the dip/foam cup. This kind of cup has an upper compartment for application of the dip/foam and a lower compartment as a reservoir for the dip/foam solution. During the application the

Description of Scenario 2.1 - Application phase: Teat disinfection pre-milking by manual dipping using a dip/foam cup
worker holds the cup at the lower compartment. Thus, direct hand exposure to the RTU or a treated teat is avoided. Inhalation exposure is covered by scenario 3.1.

Scenario 2.1 - Application phase: Teat disinfection pre-milking by manual dipping using a dip/foam cup – SoC 2-phenoxyethanol

Description of Scenario 2.1 - Application phase: Teat disinfection pre-milking by manual dipping using a dip/foam cup – SoC 2-phenoxyethanol
Before milking, the teat is dipped into the cup. According to scenario 4 of HEAdhoc Recommendation 13 (vers. 2, March 2017), dermal exposure during use of the dip cups is not expected based on the design of the dip/foam cup. This kind of cup has an upper compartment for application of the dip/foam and a lower compartment as a reservoir for the dip/foam solution. During the application the worker holds the cup at the lower compartment. Thus, direct hand exposure to the RTU or a treated teat is avoided. Inhalation exposure is covered by scenario 3.1 (SoC).

Scenario 3.1 - Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking

Description of Scenario 3.1 - Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking
After application on teats and waiting for the application time of 60 sec, wipe the product away with a clean towel. During the related steps, dermal and inhalation exposure may occur. For the dermal route of exposure, a (semi-)quantitative assessment has been performed considering the maximum concentration of hydrogen peroxide from the mSPC range (1.61%). For inhalation exposure towards vapours, ConsExpo Web is recommended. Inhalation exposure towards aerosols is considered not relevant. For the ConsExpo model, the application and exposure duration has been calculated using a worst-case duration of about 1 min per cow, 82 cows per milking event and 2 milking events per day, in line with HEAdhoc Recommendation 13, scenario 8. [redacted], molecular weight matrix has been calculated to be 22 g/mol [redacted]. All relevant input parameters are listed in the table below.

	Parameters acc. to HEAdhoc 13 scenario 8	**Value**
Tier 1	Concentration of a.s. – RTU product	1.61%
	Concentration of a.s. – in-use	1.61%
	Density (worst-case)	1.05 g/mL

Description of Scenario 3.1 - Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking		
	Application rate	4 mL/cow/appl.
	Model for dermal exposure: n.r., (semi-)quantitative assessment	n.r.
	Number of operations	1x/day
	Surface area cow`s teats (44 cm^2/teat x 4 teats)	176 cm^2
	Number of cows	82
	Applications per milking event	1 (pre)
	Milking events per day	2
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration (1 min/cow x 82 cows x 2 milkings/day)	180 min
	Molecular weight matrix ([redacted])	22 g/mol
	Product amount (total amount for 4 teats of all 82 cows: 4 mL/4 teats x 82 cows x density)	345 g
	Weight fraction substance	1.61%
	Room volume	168 m^3
	Ventilation rate	4/h
	Vapour pressure (H_2O_2 AR)	214 Pa at 20°C
	Application temperature	20°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	constant
	Release area (total area of 4 teats of all 82 cows: 4 teats x 44 cm^2/teat x 82 cows)	14432 cm^2
	Emission duration (1 min/cow x 82 cows x 2 milkings/day)	180 min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 3.1 - Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 3.1	1	Aerosol: n.r. Vapour: 0.54 Combined: 0.54	1.61	n.r.	Inhalation: 0.54 Dermal: 1.61

Scenario 3.1 - Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking – SoC 2-phenoxyethanol

Description of Scenario 3.1 - Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking – SoC 2-phenoxyethanol
After application on teats and waiting for the application time of 60 sec, wipe the product away with a clean towel. During the related steps, dermal and inhalation exposure may occur. For the dermal route of exposure, no (semi-)quantitative assessment is deemed necessary according to the draft CAR on 2-phenoxyethanol. For inhalation exposure towards vapours, ConsExpo Web is recommended. Inhalation exposure towards aerosols is considered not relevant. For the ConsExpo model, the application and exposure duration has been calculated using a worst-case duration of about 1 min per cow, 82 cows per milking event and 2 milking events per day, in line with HEAdhoc Recommendation 13, scenario 8. [redacted], molecular weight matrix has been calculated to be 22 g/mol [redacted]. In addition to the local assessment, a systemic assessment for the dermal and inhalation (vapour) route of exposure has been performed considering the maximum concentration of nPA from the mSPC range (17.5%). All relevant input parameters are listed in the table below.

	Parameters acc. to HEAdhoc 13 scenario 8	**Value**
Tier 1	Concentration of SoC – RTU product	0.9%
	Concentration of SoC – in-use	0.9%
	Density (worst-case)	1.05 g/mL
	Application rate	4 mL/cow/appl.
	Model for dermal exposure: n.r. for local assessment	n.r.
	Number of operations	1x/day
	Surface area cow`s teats (44 cm^2/teat x 4 teats)	176 cm^2

Description of Scenario 3.1 - Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking – SoC 2-phenoxyethanol		
	Number of cows	82
	Applications per milking event	1 (pre)
	Milking events per day	2
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration (1 min/cow x 82 cows x 2 milkings/day)	180 min
	Molecular weight matrix ([redacted])	22 g/mol
	Product amount (total amount for 4 teats of all 82 cows: 4 mL/4 teats x 82 cows x density)	345 g
	Weight fraction substance	0.9%
	Room volume	168 m^3
	Ventilation rate	4/h
	Vapour pressure (2-PE AR)	1.4 Pa at 20°C
	Application temperature	20°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	constant
	Release area (total area of 4 teats of all 82 cows: 4 teats x 44 cm^2/teat x 82 cows)	14432 cm^2
	Emission duration (1 min/cow x 82 cows x 2 milkings/day)	180 min
	Systemic assessment	
	Dermal absorption	75%
	Model for dermal exposure: film thickness approach	0.01 cm
	Product amount with contact to hand	0.1 % of initial amount
	Applications per day	2
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 3.1 - Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking – SoC 2-phenoxyethanol

local assessment

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 3.1 (SoC)	1	Aerosol: n.r. Vapour: 2.20E-03 Combined: 2.20E-03 8 h-TWA: 8.25E-04	n.r.	n.r.	Inhalation: 2.20E-03 8 h-TWA: 8.25E-04 Dermal: n.r.

systemic assessment

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Scenario 3.1 (SoC)	1	Aerosol: n.r. Vapour: 1.39E-04 Combined: 1.39E-04	3.41E-02	n.r.	3.42E-02

Further information and considerations on Scenario 3.1 - Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking – hydrogen peroxide and SoC 2-phenoxyethanol

During post-application, the maximum concentration of hydrogen peroxide is 1.61%. Maximum concentrations of SoCs are: sodium lauryl sulfate (3.88%), sodium caprylolglutamate (2.0%) and sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, 1.12%). With respect to local effects, this results in a classification with H319 (Eye Irrit. 2) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 3.2 - Post-application phase: Cleaning of equipment after application (dip/foam cup)

Description of Scenario 3.2 - Post-application phase: Cleaning of equipment after application (dip/foam cup)
After application, the reservoir is emptied, and the entire dip/foam cup is cleaned with water. Only a small amount of product will remain in the application equipment, which will be further diluted by the wash-water. During the related steps, dermal exposure may occur. For the dermal route of exposure, a (semi-)quantitative assessment has been performed considering the maximum concentration of hydrogen peroxide from the mSPC range (1.61%). Inhalation exposure towards aerosols and vapours is not considered relevant, therefore no additional exposure calculations are required.

Calculations for Scenario 3.2 - Post-application phase: Cleaning of equipment after application (dip/foam cup)

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 3.2	1	n.r.	1.61	n.r.	Inhalation: n.r. Dermal: 1.61

Scenario 3.2 - Post-application phase: Cleaning of equipment after application (dip/foam cup) – SoC 2-phenoxyethanol

Description of Scenario 3.2 - Post-application phase: Cleaning of equipment after application (dip/foam cup) – SoC 2-phenoxyethanol
After application, the reservoir is emptied, and the entire dip/foam cup is cleaned with water. Only a small amount of product will remain in the application equipment, which will be further diluted by the wash-water. During the related steps, dermal exposure may occur. For the dermal route of exposure, no (semi-)quantitative assessment is deemed necessary according to the draft CAR on 2-phenoxyethanol. Inhalation exposure towards aerosols and vapours is not considered relevant, therefore no additional exposure calculations are required. In addition to the local assessment, a systemic assessment for the dermal and inhalation (vapour) route of exposure has been performed considering the maximum concentration of nPA from the mSPC range (17.5%). Systemic exposure has been calculated in line with HEAdhoc Recommendation 13, scenario 11. All relevant input parameters are listed in the table below.

	Parameters acc. to HEAdhoc 13 scenario 11	**Value**
Tier 1	Concentration of SoC – RTU product	0.9%
	Concentration of SoC – in-use	0.9%
	Density (worst-case)	1.05 g/mL
	Model for dermal exposure: n.r. for local assessment	n.r.
	Number of operations	1x/day
	Model for inhalation exposure (vapour)	n.r.
	Exposure duration	5 min
	Systemic assessment	
	Dermal absorption	75%

Description of Scenario 3.2 - Post-application phase: Cleaning of equipment after application (dip/foam cup) – SoC 2-phenoxyethanol		
	Model for dermal exposure: RISKOFDERM Toolkit - Connecting lines	0.92 mg/min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 3.2 - Post-application phase: Cleaning of equipment after application (dip/foam cup) – SoC 2-phenoxyethanol

local assessment

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 3.2 (SoC)	1	Aerosol: n.r. Vapour: n.r. Combined: n.r.	n.r.	n.r.	Inhalation: n.r. Dermal: n.r.

systemic assessment

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Scenario 3.2 (SoC)	1	Aerosol: n.r. Vapour: n.r. Combined: n.r.	5.18E-04	n.r.	5.18E-04

Further information and considerations on Scenario 3.2 - Post-application phase: Cleaning of equipment after application (dip/foam cup) – hydrogen peroxide and SoC 2-phenoxyethanol

During post-application, the maximum concentration of hydrogen peroxide is 1.61%. Maximum concentrations of SoCs are: sodium lauryl sulfate (3.88%), sodium caprylolglutamate (2.0%) and sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, 1.12%). With respect to local effects, this results in a classification with H319 (Eye Irrit. 2) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 4.1 - Secondary inhalation exposure of professional bystanders during teat disinfection

Description of Scenario 4.1 - Secondary inhalation exposure of professional bystanders during teat disinfection
Inhalation exposure of professional bystanders towards the RTU product during manual teat disinfection using a dip/foam cup is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Inhalation exposure is covered by scenario 3.1.

Scenario 4.1 - Secondary inhalation exposure of professional bystanders during teat disinfection – SoC 2-phenoxyethanol

Description of Scenario 4.1 - Secondary inhalation exposure of professional bystanders during teat disinfection
Inhalation exposure of professional bystanders towards the RTU product during manual teat disinfection using a dip/foam cup is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Inhalation exposure is covered by scenario 3.1 (SoC).

SoC citric acid

Citric acid is a biocidal active substance present at a concentration of 0.9% in the products of mSPC4. According to the SoC guidance, for active substances present at ≥ 0.1%, a fully quantitative exposure and risk assessment according to Band C is formally triggered.

However, the applicant claims that in the case of citric acid such an assessment can be waived [redacted]

[redacted]

Against this background it is considered that exposure towards 0.9% citric acid via teat disinfectants is acceptable, [redacted].

*Combined scenarios – **H_2O_2***

Not relevant.

The active substance only exerts local effects and potential systemic effects are secondary to its direct irritating reactivity. Hence, combination of different work tasks (i.e. M/L, application, post-application phase) is not necessary. Instead, relevant scenarios per intended use are listed separately:

Local assessment

Summary table: estimated exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Use # 4.1 – (PT3) Teat dips for pre-milking disinfection					
Scenario 1.2	1	Aerosol: n.r. Vapour: 0.0021 Combined: 0.0021	1.61	n.r.	Inhalation: 0.0021 Dermal: 1.61
Scenario 2.1	1	Negligible dermal exposure. Inhalation exposure covered by 3.1			
Scenario 3.1	1	Aerosol: n.r. Vapour: 0.54 Combined: 0.54	1.61	n.r.	Inhalation: 0.54 Dermal: 1.61
Scenario 3.2	1	n.r.	1.61	n.r.	Inhalation: n.r. Dermal: 1.61
Scenario 4.1	1	Aerosol: n.r. Vapour: 0.54 Combined: 0.54	n.r.	n.r.	Inhalation: 0.54 Dermal: n.r.

Combined scenarios – **SoC 2-PE**

The SoC exerts local effects. Hence, combination of different work tasks (i.e. M/L, application, post-application phase) is not necessary. Instead, relevant scenarios per intended use are listed separately:

Local assessment

Summary table: estimated exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Use # 4.1 – (PT3) Teat dips for pre-milking disinfection					
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 7.80E-06 Combined: 7.80E-06 8 h-TWA: 1.22E-08	n.r.	n.r.	Inhalation: 7.80E-06 8 h-TWA: 1.22E-08 Dermal: n.r.
Scenario 2.1 (SoC)	1	Negligible dermal exposure. Inhalation exposure covered by 3.1 (SoC)			
Scenario 3.1 (SoC)	1	Aerosol: n.r. Vapour: 2.20E-03 Combined: 2.20E-03 8 h-TWA: 8.25E-04	n.r.	n.r.	Inhalation: 2.20E-03 8 h-TWA: 8.25E-04 Dermal: n.r.
Scenario 3.2 (SoC)	1	Aerosol: n.r. Vapour: n.r. Combined: n.r.	n.r.	n.r.	Inhalation: n.r. Dermal: n.r.
Scenario 4.1 (SoC)	1	Aerosol: n.r. Vapour: 2.20E-03 Combined: 2.20E-03 8 h-TWA: 8.25E-04	n.r.	n.r.	Inhalation: 2.20E-03 8 h-TWA: 8.25E-04 Dermal: n.r.

The SoC exerts systemic effects. Hence, different work tasks (i.e. M/L, application, post-application phase) have been combined.

Systemic assessment

Summary table: estimated exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Use # 4.1 – (PT3) Teat dips for pre-milking disinfection					
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 2.050E-09 Combined: 2.050E-09	1.18E-03	n.r.	1.18E-03
Scenario 2.1 (SoC)	1	Negligible dermal exposure. Inhalation exposure covered by 3.1 (SoC)			
Scenario 3.1 (SoC)	1	Aerosol: n.r. Vapour: 1.39E-04 Combined: 1.39E-04	3.41E-02	n.r.	3.42E-02
Scenario 3.2 (SoC)	1	Aerosol: n.r. Vapour: n.r. Combined: n.r.	5.18E-04	n.r.	5.18E-04
Scenario 4.1 (SoC)	1	Aerosol: n.r. Vapour: 1.39E-04 Combined: 1.39E-04	n.r.	n.r.	1.39E-04
Combined 1.2 + 3.1 + 3.2 (SoC)	1	Aerosol: n.r. Vapour: 1.39E-04 Combined: 1.39E-04	3.58E-02	n.r.	3.59E-02

Non-professional exposure

Not relevant.

Exposure of the general public

Not relevant.

Products are applied on farms with no access of the general public.

Monitoring data

Summary of field studies is provided in the confidential Annex.

Dietary exposure

Summary table of main representative dietary exposure scenarios			
Scenario number	**Type of use**	**Description of scenario**	**Subject of exposure**
6.1	Professional use in animal husbandry	Livestock exposure assessment and worst-case consumer exposure (WCCE) via residues in edible tissues and milk resulting from pre-milking teat disinfection **– hydrogen peroxide**	Dairy cows, buffaloes, goats and sheep
6.1	Professional use in animal husbandry	Livestock exposure assessment and worst-case consumer exposure (WCCE) via residues in edible tissues and milk resulting from pre-milking teat disinfection **– SoC citric acid**	Dairy cows, buffaloes, goats and sheep
6.1	Professional use in animal husbandry	Livestock exposure assessment and worst-case consumer exposure (WCCE) via residues in edible tissues and milk resulting from pre-milking teat disinfection **– SoC 2-phenoxyethanol**	Dairy cows, buffaloes, goats and sheep

Information of non-biocidal use of the active substance

See life sciences cleanroom setting 1 above.

Estimating Livestock Exposure to Active Substances used in Biocidal Products

Scenario 6.1 - Livestock exposure assessment and worst-case consumer exposure (WCCE) via residues in edible tissues and milk resulting from pre-milking teat disinfection – hydrogen peroxide

Scenario 6.1 - Livestock exposure assessment and worst-case consumer exposure (WCCE) via residues in edible tissues and milk resulting from pre-milking teat disinfection – hydrogen peroxide
No residues expected.
[redacted]

Scenario 6.1 - Livestock exposure assessment and worst-case consumer exposure (WCCE) via residues in edible tissues and milk resulting from pre-milking teat disinfection - SoC 2-phenoxyethanol ***– SoC citric acid***

Scenario 6.1 - Livestock exposure assessment and worst-case consumer exposure (WCCE) via residues in edible tissues and milk resulting from pre-milking teat disinfection – SoC citric acid
Likewise, hydrogen peroxide, exposure of livestock animals towards the SoC citric acid is considered acceptable [redacted].

Scenario 6.1 - Livestock exposure assessment and worst-case consumer exposure (WCCE) via residues in edible tissues and milk resulting from pre-milking teat disinfection - SoC 2-phenoxyethanol ***– SoC 2-phenoxyethanol***

Scenario 6.1 - Livestock exposure assessment and worst-case consumer exposure (WCCE) via residues in edible tissues and milk resulting from pre-milking teat disinfection – SoC 2-phenoxyethanol
In the 2-PE draft CAR, no livestock exposure assessment has been performed as there were no intended uses for PT3. For the SoC 2-PE, a fully quantitative assessment is triggered. Thus, a screening has been performed for 0.9% 2-phenoxyethanol in teat disinfectants of mSPC4 according to the BPR Guidance HH, chapter 6, p. 358f for teat disinfection, example 4.1 "Direct Treatment of Animals – Teat disinfection through dipping". All relevant parameters are listed in the table below.

	Parameters	**Value**
Tier 1 Screening A	Number of milkings per day (n)	2 milkings/day
	Product volume on teats per milking (V_prod), worst-case	10 mL/milking
	The fraction of product remaining on teats (f_prod)	0.5
	Concentration of SoC in product (C_prod)	9 mg/mL
	Body weight of the dairy cow (bw)	650 kg
	Daily edible tissue consumption (I_tissues)	0.5 kg/day
	Daily milk consumption (I_milk)	1.5 kg/day
	Default body weight for adult (Bw_human)	60 kg
	Dermal absorption	100%
	Degradation of SoC	0%
Tier 1 Screening B	Daily milk yield of the dairy cow (V_milk)	20 L/day
	Daily milk consumption (I_milk)	1.5 L/day

Calculations for estimating livestock exposure for Scenario 6.1 - Livestock exposure assessment and worst-case consumer exposure (WCCE) via residues

in edible tissues and milk resulting from pre-milking teat disinfection – SoC 2-phenoxyethanol

Internal dose received by the animal and WCCE*						
Screening A: **Dermal exposure of dairy cows via teat dips** n x (V_prod x f_prod x C_prod) / bw 2 x (10 mL/milking x 0.5 x 9 mg/mL) / 650 kg = 0.138 mg/kg bw/d **Worst case consumer exposure (WCCE)** 0.138 mg/kg bw/d x (0.5 kg + 1.5 kg) / 60 kg = 0.0046 mg/kg bw/d **Screening B:** **Estimated residues in milk through contamination during milking** n x (V_prod x f_prod x C_prod) / V_milk 2 x (10 mL/milking x 0.5 x 9 mg/mL) / 20 L = 4.5 mg/L **Worst case consumer exposure (WCCE)** 4.5 mg/L x 1.5 L / 60 kg = 0.11 mg/kg bw/d						
	Parameters	**Inhalation exposure**	**Dermal exposure (via teat)**	**Oral exposure**	**Total exposure**	**WCCE**
Scenario 6.1 (SoC)	screening A; 0.5 kg edible tissue, 1.5 kg milk	n.r.	0.138 mg/kg bw/d	n.r.	0.138 mg/kg bw/d	0.0046 mg/kg bw/d
Scenario 6.1 (SoC)	screening B; 1.5 L milk	n.r.	4.5 mg/L	n.r.	4.5 mg/L	0.11 mg/kg bw/d

**Worst case consumer exposure: combined estimate of the internal dose with the standard food basket (300 g muscle, 100 g liver, 50 g fat, 50 g kidney plus 1500 g milk, 100 g eggs and 20 g honey); muscle, liver, fat and kidney are summarised as "total edible tissue.*

Further information and considerations on Scenario 6.1 - Livestock exposure assessment and worst-case consumer exposure (WCCE) via residues in edible tissues and milk resulting from pre-milking teat disinfection – SoC 2-phenoxyethanol

Not relevant.

Conclusion

The WCCE from both calculation A and B are well below the ADI of 2.5 mg/kg bw/d for 2-phenoxyethanol as given in the draft CAR. Exposure towards the SoC 2-phenoxyethanol via livestock exposure and consumption of milk is thus considered of no concern.

Estimating transfer of biocidal active substances into foods as a result of professional and/or industrial application(s)

Not relevant.

Estimating transfer of biocidal active substances into foods as a result of non-professional use

Not relevant.

Exposure associated with production, formulation and disposal of the biocidal product

See life sciences cleanroom setting 1 above.

Aggregated exposure

Not relevant. [redacted].

Setting 5: Health care applications – PT2

Disinfection products for health care application are intended to be applied in hospitals or medical practices as well as in related environments. Biocidal products in question are RTU liquids, soluble concentrates or RTU wipes and have been assigned to **mSPC5** (1.5% H_2O_2), **mSPC7** (4.95-5.45% H_2O_2), **mSPC8** (1.0% H_2O_2), **mSPC9** (7.0-7.7% H_2O_2) and **mSPC11** (1.5% H_2O_2). Products of mSPC7 contain the SoCs mixture of alkyl ether carboxylic acids (max. 3.65%, individual compounds: Capryleth-9 Carboxylic acid and Hexeth-4 Carboxylic Acid), while products of mSPC9 contain the SoCs alcohol EO phosphate ester (max. 14.626%), alkyl polyglucoside (max. 6.35%), Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980, max. 3%), phosphoric acid (max. 1.5%) and nitric acid (max. 3.71%).

RTU liquids are applied by trigger sprayer or a single use cloth/wipe to disinfect small surfaces such as door handles, cabinets, tables, wheelchairs, walking frames, telephones, trolleys or mattresses. Alternatively, or in addition to trigger spray or wiping application, RTU liquids are applied by mopping for disinfection of floors.

Soluble concentrates are applied by trigger sprayer or a single use cloth/wipe to disinfect small surfaces or by mopping for disinfection of floors.

For wiping small surfaces, impregnated RTU wipes (200 mm x 200 mm, 200 mm x 250 mm or 250 mm x 420 mm) are used.

For routine disinfection generally smaller surfaces are disinfected whereas in non-routine disinfection larger surfaces are treated.

mSPC5

Products of mSPC5 (RTU liquids) contain hydrogen peroxide at a concentration of 1.5% and realistic worst-case scenarios comprise disinfection tasks in health care settings such as hospitals and medical practices. Relevant surface areas and application rates are given in brackets.

- Scenario I: Routine and non-routine disinfection of smaller surfaces in hospital room by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface ([redacted])
- Scenario II: Routine and non-routine disinfection of smaller surfaces in medical practices by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface ([redacted])
- Scenario III: Routine and non-routine disinfection of larger surfaces in hospital room by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface ([redacted])
- Scenario IV: Routine and non-routine disinfection of larger surfaces in medical practices by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface ([redacted])
- Scenario V: Routine and non-routine disinfection of smaller surfaces in hospital room by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe ([redacted])

- Scenario VI: Routine and non-routine disinfection of smaller surfaces in medical practices by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe ([redacted])
- Scenario VII: Routine and non-routine disinfection of larger surfaces in hospital room by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe ([redacted])
- Scenario VIII: Routine and non-routine disinfection of larger surfaces in medical practices by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe ([redacted])
- Scenario IX: Non-routine disinfection of larger surfaces in hospital room by mopping using mop and bucket ([redacted])
- Scenario X: Non-routine disinfection of larger surfaces in medical practices by mopping using mop and bucket ([redacted])
- Scenario XI: Non-routine disinfection of smaller surfaces in hospital room by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface or by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe ([redacted]) and non-routine disinfection of larger surfaces by mopping using mop and bucket ([redacted])
- Scenario XII: Non-routine disinfection of smaller surfaces in medical practices by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface or by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe ([redacted]) and non-routine disinfection of larger surfaces by mopping using mop and bucket ([redacted])

Exposure associated to usage of products of **mSPC5** is estimated by field studies.

[redacted]

[redacted]

[redacted]

[redacted]

Estimated exposure towards hydrogen peroxide for intended uses of **mSPC5** is thus well covered by the

[redacted]

as all relevant parameters of the scenarios fall within the boundaries of these field studies and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

As products of **mSPC5** are not classified, no qualitative local assessment is triggered.

A summary of intended uses and relevant application scenarios for **mSPC5** is given in the following overview table along with the HHRA strategy.

PT2: Health care application	**mSPC5**
H_2O_2 concentration	1.5%
Formulation type	RTU liquids
C&L	-
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 5.3 – (PT2) Disinfection of non-food contact surfaces in health care applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 b)	
Use # 5.4 – (PT2) Disinfection of non-food contact surfaces in health care applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)	
Scenario I: Routine and non-routine disinfection of smaller surfaces in hospital room by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface - PT2	[redacted]
Scenario II: Routine and non-routine disinfection of smaller surfaces in medical practices by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface - PT2	
Scenario III: Routine and non-routine disinfection of larger surfaces in hospital room by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface - PT2	
Scenario IV: Routine and non-routine disinfection of larger surfaces in medical practices by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface - PT2	
Use # 5.5 – (PT2) Disinfection of non-food contact surfaces in health care applications by wiping using clean single use cloth/wipe and bucket (Meta-SPC 5 b)	
Use # 5.6 – (PT2) Disinfection of non-food contact surfaces in health care applications by wiping using clean single use cloth/wipe and bucket (Meta-SPC 5 c)	
Scenario V: Routine and non-routine disinfection of smaller surfaces in hospital room by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe - PT2	[redacted]
Scenario VI: Routine and non-routine disinfection of smaller surfaces in medical practices by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe - PT2	
Scenario VII: Routine and non-routine disinfection of larger surfaces in hospital room by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe - PT2	
Scenario VIII: Routine and non-routine disinfection of larger surfaces in medical practices by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe - PT2	
Use # 5.7 – (PT2) Disinfection of non-food contact surfaces in health care applications by mopping using mop and bucket (Meta-SPC 5 c)	
Scenario IX: Non-routine disinfection of larger surfaces in hospital room by mopping using mop and bucket - PT2	[redacted]
Use # 5.8 – (PT2) Disinfection of non-food contact surfaces in health care applications by mopping using mop and bucket (Meta-SPC 5 c)	
Scenario X: Non-routine disinfection of larger surfaces in medical practices by mopping using mop and bucket - PT2	[redacted]
Use # 5.9 – (PT2) Disinfection of non-food contact surfaces in health care applications by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface or by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe and non-routine disinfection of larger surfaces by mopping using mop and bucket (Meta-SPC 5 c)	
Scenario XI: Non-routine disinfection of smaller surfaces in hospital room by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface or by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe and non-routine disinfection of larger surfaces by mopping using mop and bucket - PT2	[redacted]
Scenario XII: Non-routine disinfection of smaller surfaces in medical practices by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface or by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe and non-routine disinfection of larger surfaces by mopping using mop and bucket - PT2	

A comparison of relevant parameters for the scenarios of **mSPC5** and assigned field studies is given in the following overview table.

mSPC5: 1.5% H_2O_2 scenario and field study	Scenario short description	Application rate	Disinfected surface	Room volume	Application duration	Exposure duration	Ventilation regime	surface-to-room volume ratio	Reference to relevant guidance
[redacted]									

mSPC7
Products of mSPC7 (soluble concentrates) contain hydrogen peroxide at a concentration of 4.95-5.45% and are applied at a maximum concentration of 0.818%. In addition, they contain the SoC mixture of alkyl ether carboxylic acids (max. 3.65%, individual compounds: Capryleth-9 Carboxylic acid and Hexeth-4 Carboxylic Acid). Realistic worst-case scenarios comprise disinfection tasks in health care settings such as hospitals and medical practices. Relevant surface areas and application rates are given in brackets.

- Scenario I: Routine and non-routine disinfection of larger surfaces in hospital room by mopping using mop and bucket ( ), covered by scenario IX of mSPC5
- Scenario II: Routine and non-routine disinfection of larger surfaces in medical practices by mopping using mop and bucket ( ), covered by scenario X of mSPC5

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC7** is estimated by field studies.

Regarding harmonised parameters that have been considered for the assignment of the relevant field study, please refer to mSPC5.

Estimated exposure towards hydrogen peroxide for intended uses of **mSPC7** is thus well covered by the

,

as all relevant parameters of the scenarios fall within the boundaries of this field study and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

Due to the classification with H314 (Skin Corr. 1) and H318 (Eye Dam. 1), and the SoC mixture of alkyl ether carboxylic acids (individual compounds: Capryleth-9 Carboxylic acid and Hexeth-4 Carboxylic Acid), a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3).

A summary of intended uses and relevant application scenarios for **mSPC7** is given in the following overview table along with the HHRA strategy.

PT2: Health care application	mSPC7
H_2O_2 concentration	4.95-5.45% max. 0.818% in-use
Formulation type	SL
C&L	H314 (Cat. 1) H318
SoC	mixture of alkyl ether carboxylic acids
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 7.1 – (PT2) Disinfection of non-food contact surfaces in health care applications by mopping using flat mop and bucket	
Scenario I: Routine and non-routine disinfection of larger surfaces in hospital room by mopping using mop and bucket - PT2 (covered by mSPC5)	[redacted]
Scenario II: Routine and non-routine disinfection of larger surfaces in medical practices by mopping using mop and bucket - PT2 (covered by mSPC5)	

For a comparison of relevant parameters for the scenarios of **mSPC7** and assigned field studies, please see overview table for mSPC5.

mSPC8

Products of mSPC5 (RTU wipes) contain hydrogen peroxide at a concentration of 1.0% and realistic worst-case scenarios comprise disinfection tasks in health care settings such as hospitals and medical practices. Relevant surface areas and application rates are given in brackets.

- Scenario I: Routine disinfection of smaller surfaces in hospital room by wiping using impregnated RTU wipes ([redacted]), covered by scenario I and V of mSPC5
- Scenario II: Routine disinfection of smaller surfaces in medical practices by wiping using impregnated RTU wipes ([redacted]), covered by scenario II and VI of mSPC5

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC8** is estimated by field studies.

Regarding harmonised parameters that have been considered for the assignment of the relevant field study, please refer to mSPC5.

[redacted]

Estimated exposure towards hydrogen peroxide for intended uses of **mSPC8** is thus well covered by the

[redacted],

as all relevant parameters of the scenarios fall within the boundaries of this field study and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

As products of **mSPC8** are not classified, no qualitative local assessment is triggered.

A summary of intended uses and relevant application scenarios for **mSPC8** is given in the following overview table along with the HHRA strategy.

PT2: Health care application	**mSPC8**
H_2O_2 concentration	1.0%
Formulation type	RTU wipes
C&L	-
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 8.3 – (PT2) Disinfection of non-food contact surfaces in health care applications by wiping using impregnated RTU wipes	
Scenario I: Routine disinfection of smaller surfaces in hospital room by wiping using impregnated RTU wipes - PT2 (covered by mSPC5)	[redacted]
Scenario II: Routine disinfection of smaller surfaces in medical practices by wiping using impregnated RTU wipes - PT2 (covered by mSPC5)	

For a comparison of relevant parameters for the scenarios of **mSPC8** and assigned field studies, please see overview table for mSPC5.

mSPC9

Products of mSPC9 (soluble concentrates) contain hydrogen peroxide at a concentration of 7.0-7.7% and are applied at a maximum concentration of 0.385%. In addition, they contain the SoCs alcohol EO phosphate ester (max. 14.625%), alkyl polyglucoside (max. 6.35%), Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980, max. 3%), phosphoric acid (max. 1.5%) and nitric acid (max 3.71%). Realistic worst-case scenarios comprise disinfection tasks in health care settings such as hospitals and medical practices. Relevant surface areas and application rates are given in brackets.

- Scenario I: Routine and non-routine disinfection of smaller surfaces in hospital room by having the disinfectant in a bucket and wiping with a clean cloth/wipe ([redacted]), covered by scenario I and V of mSPC5
- Scenario II: Routine and non-routine disinfection of smaller surfaces in medical practices by having the disinfectant in a bucket and wiping with a clean cloth/wipe, ([redacted]), covered by scenario II and VI of mSPC5
- Scenario III: Routine and non-routine disinfection of larger surfaces in hospital room by mopping using mop and bucket ([redacted]), covered by scenario IX of mSPC5

- Scenario IV: Routine and non-routine disinfection of larger surfaces in medical practices by mopping using mop and bucket ( ), covered by scenario X of mSPC5

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC9** is estimated by field studies.

Regarding harmonised parameters that have been considered for the assignment of the relevant field study, please refer to mSPC5.

.

Estimated exposure towards hydrogen peroxide for intended uses of **mSPC9** is thus well covered by the

- ,
- ,

as all relevant parameters of the scenarios fall within the boundaries of these field studies and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

Due to the classification with H314 (Skin Corr. 1B) and H318 (Eye Dam. 1), and the SoCs alcohol EO phosphate ester, alkyl polyglucoside, Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980), phosphoric acid and nitric acid, a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3).

A summary of intended uses and relevant application scenarios for **mSPC9** is given in the following overview table along with the HHRA strategy.

PT2: Health care application	mSPC9
H_2O_2 concentration	7.0-7.7% max. 0.385% in-use
Formulation type	SL
C&L	H314 (Cat. 1B) H318
SoC	alcohol EO phosphate ester alkyl polyglucoside fatty alcohol C10-14 6 EO (Dehydol 980) phosphoric acid nitric acid
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 9.1 – (PT2) Disinfection of non-food contact surfaces in health care applications by wiping using clean single use cloth/wipe and bucket	
Scenario I: Routine and non-routine disinfection of smaller surfaces in hospital room by having the disinfectant in a bucket and wiping with a clean cloth/wipe - PT2 (covered by mSPC5)	[redacted]
Scenario II: Routine and non-routine disinfection of smaller surfaces in medical practices by having the disinfectant in a bucket and wiping with a clean cloth/wipe - PT2 (covered by mSPC5)	
Use # 9.2 – (PT2) Disinfection of non-food contact surfaces in health care applications by mopping using flat mop and bucket	
Scenario III: Routine and non-routine disinfection of larger surfaces in hospital room by mopping using mop and bucket - PT2 (covered by mSPC5)	[redacted]
Scenario IV: Routine and non-routine disinfection of larger surfaces in medical practices by mopping using mop and bucket - PT2 (covered by mSPC5)	

For a comparison of relevant parameters for the scenarios of **mSPC9** and assigned field studies, please see overview table for mSPC5.

mSPC11

Products of mSPC11 (RTU wipes) contain hydrogen peroxide at a concentration of 1.5% and realistic worst-case scenarios comprise disinfection tasks in health care settings such as hospitals and medical practices. Relevant surface areas and application rates are given in brackets.

- Scenario I: Routine disinfection of smaller surfaces in hospital room by wiping using impregnated RTU wipes ([redacted]), covered by scenario I and V of mSPC5
- Scenario II: Routine disinfection of smaller surfaces in medical practices by wiping using impregnated RTU wipes ([redacted]), covered by scenario II and VI of mSPC5

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC11** is estimated by field studies.

Regarding harmonised parameters that have been considered for the assignment of the relevant field study, please refer to mSPC5.

[redacted]

Estimated exposure towards hydrogen peroxide for intended uses of **mSPC11** is thus well covered by the

- [redacted],

as all relevant parameters of the scenario fall within the boundaries of this field study and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

As products of **mSPC11** are not classified, no qualitative local assessment is triggered.

A summary of intended uses and relevant application scenarios for **mSPC11** is given in the following overview table along with the HHRA strategy.

PT2: Health care application	**mSPC11**
H_2O_2 concentration	1.5%
Formulation type	RTU wipes
C&L	-
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 11.3 – (PT2) Disinfection of non-food contact surfaces in health care applications by wiping using impregnated RTU wipes (Meta-SPC 11 d)	
Scenario I: Routine disinfection of smaller surfaces in hospital room by wiping using impregnated RTU wipes - PT2 (covered by mSPC5)	[redacted]
Scenario II: Routine disinfection of smaller surfaces in medical practices by wiping using impregnated RTU wipes - PT2 (covered by mSPC5)	

For a comparison of relevant parameters for the scenarios of **mSPC11** and assigned field studies, please see overview table for mSPC5.

Considerations on secondary exposure

Concerning the secondary exposure, the field studies [redacted] have been used ([redacted]). These are considered to cover secondary exposure scenarios for the general public as the duration of the studies reflect the time when the general public may enter a treated area.

Setting 6: Institutional applications (non-food contact) – PT2
Setting 7: Institutional applications (food-contact) – PT4

Products for institutional application are RTU liquids, soluble concentrates or RTU wipes and have been assigned to **mSPC5** (1.5% H_2O_2), **mSPC7** (4.95-5.45% H_2O_2), **mSPC9** (7.0-7.7% H_2O_2) and **mSPC11** (1.5% H_2O_2). Disinfection products in question are intended to be applied on both non-food contact (PT2) and food-contact surfaces (PT4). Products of mSPC7 contain the SoC mixture of alkyl ether carboxylic acids (max. 3.65%, individual compounds: Capryleth-9 Carboxylic acid and Hexeth-4 Carboxylic Acid), while products of mSPC9 contain the SoCs alcohol EO phosphate ester (max. 14.625%), alkyl

polyglucoside (max. 6.35%), Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980, max. 3%), phosphoric acid (max. 1.5%) and nitric acid (max. 3.71%).

RTU liquids are applied by trigger sprayer, but soluble concentrates are applied by trigger sprayer or a single use cloth/wipe to disinfect small surfaces. Alternatively, or in addition to trigger spray or wiping application, RTU liquids are applied by wiping with a mop for disinfection of floors. Soluble concentrates are also applied by downward spraying with a wall mounted device.

For wiping small surfaces, impregnated RTU wipes (200 mm x 200 mm, 250 x 420 mm) are used.

mSPC5
Products of mSPC5 (RTU liquids) contain hydrogen peroxide at a concentration of 1.5% and realistic worst-case scenarios comprise tasks in institutional applications such as disinfection of small non-food contact (PT2) in unspecified rooms or food-contact (PT4) surfaces in small kitchens or larger canteens. Relevant surface areas and application rates are given in brackets.

- Scenario I: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by spraying using trigger sprayer and optional dry wipe - PT2 ([redacted])
- Scenario II: Routine disinfection of small surfaces in small food areas (e.g. kitchens) by spraying using trigger sprayer and optional dry wipe - PT4 ([redacted])

Exposure associated to usage of products of **mSPC5** is estimated by field studies.

[redacted]

[redacted]

[redacted]

[redacted]

Estimated exposure towards **hydrogen peroxide** for intended uses of **mSPC5** is thus well covered by the

[redacted]

as all relevant parameters of the scenarios fall within the boundaries of these field studies and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

As products of **mSPC5** are not classified, no qualitative local assessment is triggered.

A summary of intended uses and relevant application scenarios for **mSPC5** is given in the following overview table along with the HHRA strategy.

PT2: Institutional application (non-food contact) **PT4: Institutional application (food contact)**	**mSPC5**
H_2O_2 concentration	1.5%
Formulation type	RTU liquids
C&L	-
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 5.10 – (PT2) Disinfection of non-food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)	
Scenario I: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by spraying using trigger sprayer and optional dry wipe - PT2	[redacted]
Use # 5.11 – (PT4) Disinfection of food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)	
Scenario II: Routine disinfection of small surfaces in small food areas (e.g. kitchens) by spraying using trigger sprayer and optional dry wipe - PT4	[redacted]

A comparison of relevant parameters for the scenarios of **mSPC5** and assigned field studies is given in the following overview table.

mSPC5: 1.5% H_2O_2 scenario and field study	Application rate	Disinfected surface	Room volume	Application duration	Exposure duration	Ventilation regime	surface-to-room volume ratio	Reference to relevant guidance
[redacted]								

mSPC7
Products of mSPC7 (soluble concentrates) contain hydrogen peroxide at a concentration of 4.95-5.45% and are applied at a maximum concentration of 0.818%. In addition, they contain the SoC mixture of alkyl ether carboxylic acids (max. 3.65%, individual compounds: Capryleth-9 Carboxylic acid and Hexeth-4 Carboxylic Acid). Realistic worst-case scenarios comprise tasks in institutional applications such as disinfection of small non-food contact (PT2) in unspecified rooms or food-contact (PT4) surfaces in small kitchens or larger canteens. Relevant surface areas and application rates are given in brackets.

- Scenario I: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by spraying using trigger sprayer and dry wipe - PT2 ( )
- Scenario II: Routine disinfection of floors in small non-food areas (e.g. bathrooms) by mopping using flat mop and bucket - PT2 ( )
- Scenario III: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by spraying using trigger sprayer and dry wipe ( ) and floors by mopping using flat mop and bucket - PT2 ( )
- Scenario IV: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by mopping using flat mop and bucket - PT2 ( )
- Scenario V: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device - PT2 ( )
- Scenario VI: Routine disinfection of large surfaces in large food areas (e.g. kitchens) by spraying using trigger sprayer and dry wipe - PT4 ( )

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC7** in scenarios I-IV and VI is estimated by field studies. Regarding harmonised parameters that have been considered for the assignment of the relevant field study, please refer to mSPC5.

Scenario V of **mSPC7** is addressed by modelling. Relevant scenarios are listed in the table "list of scenarios" below.

Estimated exposure towards hydrogen peroxide for intended uses of **mSPC7** is thus well covered by the

as all relevant parameters of the scenarios fall within the boundaries of these field studies and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

Due to the classification with H314 (Skin Corr. 1) and H318 (Eye Dam. 1), and the SoC mixture of alkyl ether carboxylic acids (individual compounds: Capryleth-9 Carboxylic acid and Hexeth-4 Carboxylic Acid), a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3).

A summary of intended uses and relevant application scenarios for **mSPC7** is given in the following overview table along with the HHRA strategy.

PT2: Institutional application (non-food contact) **PT4: Institutional application (food contact)**	**mSPC7**
H_2O_2 concentration	4.95-5.45% max. 0.818% in-use
Formulation type	SL
C&L	H314 (Cat. 1) H318
SoC	mixture of alkyl ether carboxylic acids
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 7.2 – (PT2) Disinfection of non-food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe and/or by mopping using flat mop and bucket	
Scenario I: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by spraying using trigger sprayer and dry wipe - PT2	[redacted]
Scenario II: Routine disinfection of floors in small non-food areas (e.g. bathrooms) by mopping using flat mop and bucket - PT2	
Scenario III: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by spraying using trigger sprayer and dry wipe and floors by mopping using flat mop and bucket - PT2	
Use # 7.3 – (PT2) Disinfection of non-food contact surfaces in institutional applications by mopping using flat mop and bucket	
Scenario IV: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by mopping using flat mop and bucket - PT2	[redacted]
Use # 7.4 – (PT2) Disinfection of non-food contact surfaces in institutional applications by spraying using wall mounted device	
Scenario V: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device - PT2	Modelling
Use # 7.5 – (PT4) Disinfection of food contact surfaces in institutional applications by spraying using trigger sprayer	
Scenario VI: Routine disinfection of large surfaces in large food areas (e.g. kitchens) by spraying using trigger sprayer and dry wipe - PT4	[redacted]

A comparison of relevant parameters for the scenarios of **mSPC7** and assigned field studies is given in the following overview table.

mSPC7: 4.95-5.45% H_2O_2, max. 0.818% H_2O_2 in-use scenario and field study	Application rate	Disinfected surface	Room volume	Application duration	Exposure duration	Ventilation regime	surface-to-room volume ratio	Reference to relevant guidance
[redacted]								

mSPC9

Products of mSPC9 (soluble concentrates) contain hydrogen peroxide at a concentration of 7.0-7.7% and are applied at a maximum concentration of 0.385%. In addition, they contain the SoCs alcohol EO phosphate ester (max. 14.625%), alkyl polyglucoside (max. 6.35%), Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980, max. 3%), phosphoric acid (max. 1.5%) and nitric acid (max. 3.71%). Realistic worst-case scenarios comprise tasks in institutional applications such as disinfection of small non-food contact (PT2) in unspecified rooms or food-contact (PT4) surfaces in small kitchens or larger canteens. Relevant surface areas and application rates are given in brackets.

- Scenario I: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by spraying using trigger sprayer and dry wipe - PT2 ([redacted])
- Scenario II: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by wiping using single-use cloth and bucket - PT2 ([redacted])
- Scenario III: Routine disinfection of floors in small non-food areas (e.g. bathrooms) by mopping using flat mop and bucket - PT2 ([redacted])
- Scenario IV: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by spraying using trigger sprayer and dry wipe or by wiping using single-use cloth and bucket ([redacted]) and floors by mopping using flat mop and bucket - PT2 ([redacted])
- Scenario V: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by mopping using flat mop and bucket - PT2 ([redacted])
- Scenario VI: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device - PT2 ([redacted])
- Scenario VII: Routine disinfection of large surfaces in large food areas (e.g. kitchens) by spraying using trigger sprayer and dry wipe - PT4 ([redacted])
- Scenario VIII: Routine disinfection of large surfaces in large food areas (e.g. kitchens) by wiping using single-use cloth and bucket - PT4 ([redacted])

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC9** is estimated by field studies. Regarding harmonised parameters that have been considered for the assignment of the relevant field study, please refer to mSPC5.

[redacted]

Estimated exposure towards hydrogen peroxide for intended uses of **mSPC9** is thus well covered by the

as all relevant parameters of the scenarios fall within the boundaries of these field studies and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

Due to the classification with H314 (Skin Corr. 1B) and H318 (Eye Dam. 1), and the SoCs alcohol EO phosphate ester, alkyl polyglucoside, Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980), phosphoric acid and nitric acid, a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3).

A summary of intended uses and relevant application scenarios for **mSPC9** is given in the following overview table along with the HHRA strategy.

PT2: Institutional application (non-food contact) **PT4: Institutional application (food contact)**	**mSPC9**
H_2O_2 concentration	7.0-7.7% max. 0.385% in-use
Formulation type	SL
C&L	H314 (Cat. 1B) H318
SoC	alcohol EO phosphate ester alkyl polyglucoside fatty alcohol C10-14 6 EO (Dehydol 980) phosphoric acid nitric acid
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 9.3 – (PT2) Disinfection of non-food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe or by wiping using single-use cloth and bucket and/or floors by mopping using flat mop and bucket	
Scenario I: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by spraying using trigger sprayer and dry wipe - PT2	[redacted]
Scenario II: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by wiping using single-use cloth and bucket - PT2	
Scenario III: Routine disinfection of floors in small non-food areas (e.g. bathrooms) by mopping using flat mop and bucket - PT2	
Scenario IV: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by spraying using trigger sprayer and dry wipe or by wiping using single-use cloth and bucket and floors by mopping using flat mop and bucket - PT2	
Use # 9.4 – (PT2) Disinfection of non-food contact surfaces in institutional applications by mopping using flat mop and bucket	
Scenario V: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by mopping using flat mop and bucket - PT2	[redacted]
Use # 9.5 – (PT2) Disinfection of non-food contact surfaces in institutional applications by spraying using wall mounted device	
Scenario VI: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device - PT2	[redacted]
Use # 9.6 – (PT4) Disinfection of food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe	
Scenario VII: Routine disinfection of large surfaces in large food areas (e.g. kitchens) by spraying using trigger sprayer and dry wipe - PT4	[redacted]
Use # 9.7 – (PT4) Disinfection of food contact surfaces in institutional applications by wiping using single-use cloth and bucket	
Scenario VIII: Routine disinfection of large surfaces in large food areas (e.g. kitchens) by wiping using single-use cloth and bucket - PT4	[redacted]

A comparison of relevant parameters for the scenarios of **mSPC9** and assigned field studies is given in the following overview table.

mSPC9: 7.0-7.7% H_2O_2, max. 0.385% H_2O_2 in-use scenario and field study	Application rate	Disinfected surface	Room volume	Application duration	Exposure duration	Ventilation regime	surface-to-room volume ratio	Reference to relevant guidance
[redacted]								

mSPC11

Products of mSPC11 (RTU wipes) contain hydrogen peroxide at a concentration of 1.5% and realistic worst-case scenarios comprise disinfection tasks in health care applications such as hospitals and medical practices. Relevant surface areas and application rates are given in brackets.

- Scenario I: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by wiping using impregnated RTU wipes - PT2 ([redacted]), covered by scenario I of mSPC5
- Scenario II: Routine disinfection of small surfaces in small food areas (e.g. kitchens) by wiping using impregnated RTU wipes - PT4 ([redacted]), covered by scenario II of mSPC5

Exposure towards **hydrogen peroxide** associated to usage of products of **mSPC11** is estimated by field studies. Regarding harmonised parameters that have been considered for the assignment of the relevant field study, please refer to mSPC5.

Estimated exposure towards **hydrogen peroxide** for intended uses of **mSPC11** is thus well covered by the

- [redacted],
- [redacted],

as all relevant parameters of the scenarios fall within the boundaries of these field studies and related experiments (see overview table).

For more information on these field studies and the underlying worst-case approach, please refer to the confidential Annex.

As products of **mSPC11** are not classified, no qualitative local assessment is triggered.

A summary of intended uses and relevant application scenarios for **mSPC11** is given in the following overview table along with the HHRA strategy.

PT2: Institutional application (non-food contact) **PT4: Institutional application (food contact)**	**mSPC11**
H_2O_2 concentration	1.5%
Formulation type	RTU wipes
C&L	-
SoC	none
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 11.4 – (PT2) Disinfection of non-food contact surfaces in institutional applications by wiping using impregnated RTU wipes (Meta-SPC 11 d)	
Scenario I: Routine disinfection of small surfaces in small non-food areas (e.g. bathrooms) by wiping using impregnated RTU wipes - PT2 (covered by mSPC 5)	
Use # 11.5 – (PT4) Disinfection of food contact surfaces in institutional applications by wiping using impregnated RTU wipes (Meta-SPC 11 d)	
Scenario II: Routine disinfection of small surfaces in small food areas (e.g. kitchens) by wiping using impregnated RTU wipes - PT4 (covered by mSPC 5)	

For a comparison of relevant parameters for the scenarios of **mSPC11** and assigned field studies, please see overview table for mSPC5.

mSPC7

List of scenarios – Setting 6: Institutional applications – PT2

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
1	**M/L phase**		
1.1	M/L phase: Manual mixing and loading of soluble concentrates (wall mounted device)	Primary exposure Dermal and inhalation exposure towards the concentrated product during manual mixing and loading, i.e. during connecting the wall mounted device to the product container. Exposure is considered negligible due to the type of dosing equipment. Please refer to worst-case M/L scenario 1.1 for soluble concentrates.	Professionals, covered by worst case scenario 1.1 for soluble concentrates
2	**Application phase**		
2.1	Application phase: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device	Primary exposure Dermal and inhalation exposure towards the diluted product during routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device	professionals
3	**Post-application phase**		
3.1.	Post-application phase: Rinsing of floors by downward spraying with a wall mounted device	Primary exposure Dermal and inhalation exposure towards the diluted product during rinsing of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device. Exposure during post-application rinsing is expected to be at maximum in the same range as for the disinfection task (i.e. during the application phase). Please refer to scenario 2.1.	professionals, covered by 2.1
4	**Secondary exposure of professional bystanders**		

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
4.1	Secondary inhalation exposure of professional bystanders during routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device	Secondary exposure Inhalation exposure of professional bystander towards the diluted product during routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.1.	professional bystander, covered by 2.1
5.	**Secondary exposure of general public**		
5.1	Secondary inhalation exposure of general public	Addressed by field studies	General public

Industrial exposure

Not relevant as production and formulation of products in question is addressed under other EU legislations (e.g. Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work) and not repeated under Biocidal Products Regulation 528/2012 as agreed at Biocides Technical Meeting TMI06.

Professional exposure

Scenario 1.1 - M/L phase: Manual mixing and loading of soluble concentrates (wall mounted device)

Description of Scenario 1.1 - M/L phase: Manual mixing and loading of soluble concentrates (wall mounted device)
The canister, pouch or jug containing the concentrated product is connected with the wall mounted device ([redacted]). Exposure is considered negligible due to the type of dosing equipment.

Scenario 1.1 - M/L phase: Manual mixing and loading of soluble concentrates (wall mounted device)

Description of Scenario 1.1 - M/L phase: Manual mixing and loading of soluble concentrates (wall mounted device)

This scenario is covered by the worst-case M/L scenario 1.1 for soluble concentrates.

Scenario 2.1 - Application phase: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device

Description of Scenario 2.1 - Application phase: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device

The professional user disinfects the floor by downward spraying with a wall mounted device.
Parameters have been aligned with those of [redacted] due to same application method.

During the related steps, dermal and inhalation exposure may occur.

For the dermal route of exposure, a (semi-)quantitative assessment has been performed considering the maximum concentration of hydrogen peroxide from the mSPC range (0.818% in-use).

The inhalation exposure towards vapours has been assessed with ConsExpo Web,

Description of Scenario 2.1 - Application phase: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device

exposure to vapour model using parameters in line with [redacted].

The inhalation exposure towards aerosols has been assessed with TNsG Spraying Model no 1. This model for hand-held low pressure (1-3 bar) spraying in overhead or downward direction is considered a worst-case since it includes exposure estimates for overhead spraying which is expected to lead to higher exposure than downward spraying. However, due to lack of more appropriate model and as the average water pressure determined in [redacted] was 2.3 bar it has been used for calculation.

Product amount was calculated as follows (application rate x disinfected surface x density): 180 mL/m^2 x 600 m^2 x 1.0 g/mL = 108 000 g

For the Tier-2 assessment, more realistic parameters have been considered, namely a ventilation rate of 15/h which was used in the nPA AR (PT4) for scenario 1: Surface disinfection in canteens or kitchens. Exposure estimate has further been refined by using [redacted] for the mass transfer coefficient.

[redacted]. Regarding the Tier-2 assessment, [redacted] the ventilation rate of 15/h in the SPC.

All relevant input parameters are listed in the table below.

	Parameters acc. to [redacted]	**Value**
Tier 1	Concentration of a.s. – RTU product	5.45%
	Concentration of a.s. - in-use	0.818%
	Density (highly diluted in-use solution)	1.0 g/mL
	Model for dermal exposure: n.r., (semi-)quantitative assessment	n.r.
	Application rate	180 mL/m^2
	Application frequency (applicant data)	1x/day
	Model for inhalation exposure (aerosol): Spraying Model 1	104 mg/m^3
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration	15 min
	Molecular weight matrix ([redacted])	18 g/mol
	Product amount	108 000 g
	Weight fraction substance	0.818%
	Room volume	2400 m^3
	Ventilation rate, worst-case: private kitchens (ConsExpo General Fact Sheet, 2014)	2.5/h
	Vapour pressure (H_2O_2 AR)	299 Pa at 25°C

Description of Scenario 2.1 - Application phase: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device		
	Application temperature	25°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	increasing
	Release area	600 m^2
	Application duration	15 min
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection
Tier 2	Ventilation rate (nPA AR for PT4)	15/h
	Mass transfer coefficient ([redacted])	2.95 m/hr

Calculations for Scenario 2.1 - Application phase: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m3]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m^3 or %]**
Scenario 2.1	1	Aerosol: 0.85 Vapour: 1.5 Combined: 2.35	0.818	n.r.	Inhalation: 2.35 Dermal: 0.818
	2	Aerosol: 0.85 Vapour: 0.26 Combined: 1.11	0.818	n.r.	Inhalation: 1.11 Dermal: 0.818

Further information and considerations on Scenario 2.1 - Application phase: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device

During downward spraying, the maximum concentration of hydrogen peroxide is 0.818%. In the absence of data, it has been assumed that the in-use dilution still has a pH < 2. With respect to local effects, this would result in a classification with H314 (Skin Corr. 1) and H318 (Eye Dam. 1) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 3.1 - Post-application phase: Rinsing of floors by downward spraying with a wall mounted device

Description of Scenario 3.1 - Post-application phase: Rinsing of floors by downward spraying with a wall mounted device
After the disinfection task, the user rinses the floor by downward spraying with the same wall mounted device. Exposure during post-application rinsing is expected to be at maximum in the same range as for the disinfection task (i.e. during the application phase). However, due to the high dilution with water, exposure is considered to be significantly lower. Please refer to scenario 2.1.

Scenario 4.1 - Secondary inhalation exposure of professional bystanders during routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device

Description of Scenario 4.1 - Secondary inhalation exposure of professional bystanders during routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device
The professional bystander may be exposed towards the diluted product when standing nearby a professional user during disinfection of floor by downward spraying with a wall mounted device. During the related steps, inhalation exposure may occur. Dermal exposure of bystanders is considered negligible, since direct contact to the product may only happen accidentally. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.1.

Combined scenarios

Not relevant.

The active substance only exerts local effects and potential systemic effects are secondary to its direct irritating reactivity. Hence, combination of different work tasks (i.e. M/L, application, post-application phase) is not necessary. Instead, relevant scenarios per intended use are listed separately:

Summary table: local exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Use # 7.4 – (PT2) Disinfection of non-food contact surfaces in institutional applications by spraying using wall mounted device					
Scenario 1.1, worst-case for soluble concentrates	1	Aerosol: n.r. Vapour: 0.014 Combined: 0.014	5.45	n.r.	Inhalation: 0.014 Dermal: 5.45
Scenario 2.1	1	Aerosol: 0.85 Vapour: 1.5 Combined: 2.35	0.818	n.r.	Inhalation: 2.35 Dermal: 0.818
	2	Aerosol: 0.85 Vapour: 0.26 Combined: 1.11	0.818	n.r.	Inhalation: 1.11 Dermal: 0.818
Scenario 3.1	1	Aerosol: 0.85 Vapour: 1.5 Combined: 2.35	0.818	n.r.	Inhalation: 2.35 Dermal: 0.818
	2	Aerosol: 0.85 Vapour: 0.26 Combined: 1.11	0.818	n.r.	Inhalation: 1.11 Dermal: 0.818
Scenario 4.1	1	Aerosol: 0.85 Vapour: 1.5 Combined: 2.35	n.r.	n.r.	Inhalation: 2.35 Dermal: n.r.
	2	Aerosol: 0.85 Vapour: 0.26 Combined: 1.11	n.r.	n.r.	Inhalation: 1.11 Dermal: n.r.

Non-professional exposure

Not relevant.

Exposure of the general public

Not relevant.

Products are applied by professionals in institutional setting in PT2 and PT4 (e.g. in kitchens or canteens, bathrooms) under controlled conditions. The general public has no access to areas where disinfection is ongoing.

Concerning the secondary exposure, the field studies [redacted] have been used ([redacted]). These are considered to cover secondary exposure scenarios for the general public as the duration of the studies reflect the time when the general public may enter a treated area.

Monitoring data

Summary of field studies is provided in the confidential Annex.

Dietary exposure

See food and beverage industry PT4 setting 3 (scenario 7.4 for hydrogen peroxide) above.

Information of non-biocidal use of the active substance

See life sciences cleanroom setting 1 above.

Estimating Livestock Exposure to Active Substances used in Biocidal Products

Not relevant.

Estimating transfer of biocidal active substances into foods as a result of professional and/or industrial application(s)

See food and beverage industry PT4 setting 3 (scenario 7.4 for hydrogen peroxide) above.

Estimating transfer of biocidal active substances into foods as a result of non-professional use

Not relevant.

Exposure associated with production, formulation and disposal of the biocidal product

See life sciences cleanroom setting 1 above.

Aggregated exposure

Not relevant. [redacted].

Setting 8: Hand disinfection – PT1

Products for hand disinfection are RTU gels and have been assigned to mSPC10 (1.4-1.61% H_2O_2). They are intended to be applied on hands by hygienic hand wash (PT1). Application information is given in brackets. Products of mSPC10 contain the SoCs citric acid (max. 0.9%), 2-phenoxyethanol (2-PE, max. 17.5%), sodium lauryl sulfate (max. 3.88%), sodium caprylolglutamate (max. 2.0%) and sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, max. 1.12%).

- Scenario: Hand disinfection by hygienic hand wash - PT1 (3 mL/application)

Exposure towards **hydrogen peroxide** and the **SoC 2-phenoxyethanol** associated to usage of products of **mSPC10** is estimated by modelling according to HEAdhoc Recommendation 9 (2017) on Hand disinfection in hospitals. Relevant scenarios are listed in the table "list of scenarios" below.

Exposure towards the **SoC citric acid** (0.9%) is addressed qualitatively [redacted].

Due to the classification with H319 (Eye Irrit. 2) and the SoCs sodium lauryl sulfate, sodium caprylolglutamate and sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS), a qualitative local exposure and risk assessment is performed in addition to the (semi-)quantitative assessment (please refer to chapter 2.2.6.3).

A summary of intended uses and relevant application scenarios for **mSPC10** is given in the following overview table along with the HHRA strategy.

PT1: Hand disinfection	**mSPC10**
H_2O_2 concentration	1.4-1.61%
Formulation type	RTU gel
C&L	H319
SoC	citric acid 2-phenoxyethanol sodium lauryl sulfate sodium caprylolglutamate, sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (Texapon ALS)
Intended uses and relevant application scenarios	**HHRA strategy**
Use # 10.1 – (PT1) Hygienic hand wash	
Scenario I: Hand disinfection by hygienic hand wash - PT1 **- hydrogen peroxide**	Modelling
Scenario I: Hand disinfection by hygienic hand wash - PT1 **- SoC2-phenoxyethanol**	Modelling

mSPC10 (hydrogen peroxide and SoC 2-phenoxyethanol)

List of scenarios – Setting 8: Hand disinfection – PT1

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
1.	**M/L phase**		
1.2	M/L phase: Manual mixing and loading of RTU products (dispenser)	Primary exposure Dermal and inhalation exposure towards the RTU product during manual mixing and loading, i.e. during filling the RTU product into a dispenser. Please refer to worst-case M/L scenario 1.2 for RTU products.	professionals, covered by worst case scenario 1.2 for RTU products
1.2 (SoC)	M/L phase: Manual mixing and loading of RTU products (dispenser)	Primary exposure Dermal and inhalation exposure towards the RTU product during manual mixing and loading, i.e. during filling the RTU product into a dispenser.	professionals
2.	**Application phase**		
2.1	Application phase: Hand disinfection by hygienic hand wash	Primary exposure Dermal and inhalation exposure towards the RTU product during applying product to wet hands, rubbing and thoroughly rinsing with running tap water	professionals
2.1 (SoC)	Application phase: Hand disinfection by hygienic hand wash	Primary exposure Dermal and inhalation exposure towards the RTU product during applying product to wet hands, rubbing and thoroughly rinsing with running tap water	professionals
3.	**Post-application phase**		
3.1	Post-application phase: Disposal of empty containers	Primary exposure Dermal and inhalation exposure towards the RTU product during disposal of empty containers. Containers and dispensers are generally used up, therefore, there is no primary exposure of the professional.	professionals, no exposure
3.1 (SoC)	Post-application phase: Disposal of empty containers	Primary exposure Dermal and inhalation exposure towards the RTU product during disposal of empty containers.	professionals, no exposure

Summary table: scenarios			
Scenario number	**Scenario**	**Primary or secondary exposure Description of scenario**	**Exposed group**
		Containers and dispensers are generally used up, therefore, there is no primary exposure of the professional.	
4.	**Secondary exposure of professional bystanders**		
4.1	Secondary inhalation exposure of professional bystanders during hand disinfection by hygienic hand wash	Secondary exposure Inhalation exposure of professional bystanders towards the RTU product during hand disinfection by hygienic hand wash is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Exposure is covered by scenario 2.1.	professional bystander, covered by 2.1
4.1 (SoC)	Secondary inhalation exposure of professional bystanders during hand disinfection by hygienic hand wash	Secondary exposure Inhalation exposure of professional bystanders towards the RTU product during hand disinfection by hygienic hand wash is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Exposure is covered by scenario 2.1 (SoC).	professional bystander, covered by 2.1 (SoC)
5.	**Secondary exposure of general public**		
5.1	Secondary inhalation exposure of general public	Not relevant.	General public

Industrial exposure

Not relevant as production and formulation of products in question is addressed under other EU legislations (e.g. Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work) and not repeated under Biocidal Products Regulation 528/2012 as agreed at Biocides Technical Meeting TMI06.

Professional exposure

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dispenser)

Description of Scenario 1.1 - M/L phase: Manual mixing and loading of RTU products (dispenser)
The professional user fills the RTU product into a dispenser. Re-filling is done in the same way. During the related steps, dermal and inhalation exposure may occur. This scenario is covered by the worst-case M/L scenario 1.2 for RTU products.

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dispenser) – SoC 2-phenoxyethanol

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dispenser) – SoC 2-phenoxyethanol
The professional user fills the RTU product into a dispenser. Re-filling is done in the same way. During the related steps, dermal and inhalation exposure may occur. For the dermal route of exposure, no (semi-)quantitative assessment is deemed necessary according to the draft CAR on 2-phenoxyethanol. The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model according to WGVII2018_TOX_8-2, scenario D. Mixing and loading/refilling. The inhalation exposure towards aerosols during mixing and loading tasks is considered negligible. [redacted], molecular weight matrix has been calculated to be 22 g/mol [redacted]. In addition to the local assessment, a systemic assessment for the dermal and inhalation (vapour) route of exposure has been performed. All relevant input parameters are listed in the table below.

Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dispenser) – SoC 2-phenoxyethanol

Description of Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dispenser) – SoC 2-phenoxyethanol		
	Parameters acc. to WGVII2018_TOX_8-2, scenario D	**Value**
Tier 1	Concentration of SoC – RTU product	0.9%
	Concentration of SoC – in-use	0.9%
	Density	1.05 g/mL
	Model for dermal exposure: n.r. for local assessment	n.r.
	Number of operations	1x/day
	Model for inhalation exposure (vapour): ConsExpo Web, exposure to vapour model	ConsExpo Web model
	Exposure duration	0.75 min
	Molecular weight matrix ([redacted])	22 g/mol
	Product amount (half of the amount of the container content); worst-case packaging: 20 L canister	10 500 g
	Weight fraction substance	0.9%
	Room volume (personal breathing zone)	1 m^3
	Ventilation rate	0.6/h
	Vapour pressure ([redacted])	2 Pa at 25°C
	Application temperature	25°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Release area mode	constant
	Release area (opening of bottle)	20 cm^2
	Emission duration	0.25 min
	Systemic assessment	
	Dermal absorption (2-PE draft CAR)	75%
	Model for dermal exposure: Mixing and Loading model 4 (for 10&20 L container)	0.5 mL/8 h day
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection

Calculations for Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dispenser) – SoC 2-phenoxyethanol

local assessment

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 1.10E-05 Combined: 1.10E-05 8 h-TWA: 1.72E-08	n.r.	n.r.	Inhalation: 1.10E-05 8 h-TWA: 1.72E-08 Dermal: n.r.

systemic assessment

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 2.89E-09 Combined: 2.89E-09	5.91E-02	n.r.	5.91E-02

Further information and considerations on Scenario 1.2 - M/L phase: Manual mixing and loading of RTU products (dip/foam cup) – hydrogen peroxide and SoC 2-phenoxyethanol

During manual mixing and loading, the maximum concentration of hydrogen peroxide is 1.61%. Maximum concentrations of SoCs are: sodium lauryl sulfate (3.88%), sodium caprylolglutamate (2.0%) and sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, 1.12%). With respect to local effects, this results in a classification with H319 (Eye Irrit. 2) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 2.1 - Application phase: Hand disinfection by hygienic hand wash

Description of Scenario 2.1 - Application phase: Hand disinfection by hygienic hand wash

Hand disinfection by hygienic hand wash is performed in the hygienic sluice of the food processing plant before entering or after leaving high risk or production area.

The professional user applies the product to wet hands, rubs for 60 sec. and thoroughly rises with running tap water.

During the related steps, dermal and inhalation exposure may occur.

For the dermal route of exposure, a (semi-)quantitative assessment has been performed considering the maximum concentration of hydrogen peroxide from the mSPC range (1.61%).

The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model according to HEAdhoc Recommendation 9 on Hand disinfection in hospitals. The assessment for hospital rooms, using a ventilation rate of 1.5/hr is considered to also cover relevant settings in the food and beverage industry.

Product amount was calculated as follows (application rate x disinfected surface x density): 3 mL/appl. X 10 appl./day x 1.05 g/mL = 31.5 g

All relevant input parameters are listed in the table below.

	Parameters acc. to HEAdhoc 9	**Value**
Tier 1	Concentration of a.s. – RTU product	1.61%
	Concentration of a.s. – in-use	1.61%
	Density	1.05 g/mL
	Model for dermal exposure: n.r., (semi-)quantitative assessment	n.r.
	Application rate (applicant data)	3 mL/appl.
	Application frequency (applicant data)	10x/day
	Model for inhalation exposure (vapour): Instantaneous release	ConsExpo Web model
	Exposure duration	10 min
	Product amount	31.5 g
	Weight fraction substance	1.61%
	Room volume	80 m^3
	Ventilation rate	1.5/h

Scenario 2.1 - Application phase: Hand disinfection by hygienic hand wash

Description of Scenario 2.1 - Application phase: Hand disinfection by hygienic hand wash		
	Vapour pressure ([redacted])	417 Pa at 30°C
	Application temperature	30°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection
Tier-2	Model for inhalation exposure (vapour): Constant rate	ConsExpo Web model
	Exposure duration	10 min
	Product amount	3.15 g
	Emission duration	1 min

Calculations for Scenario 2.1 - Application phase: Hand disinfection by hygienic hand wash

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m3]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m^3 or %]**
Scenario 2.1	1	Aerosol: n.r. Vapour: 5.6 Combined: 5.6	1.61	n.r.	Inhalation: 5.6 Dermal: 1.61
	2	Aerosol: n.r. Vapour: 0.54 Combined: 0.54	1.61	n.r.	Inhalation: 0.54 Dermal: 1.61

Scenario 2.1 - Application phase: Hand disinfection by hygienic hand wash – SoC 2-phenoxyethanol

Description of Scenario 2.1 - Application phase: Hand disinfection by hygienic hand wash – SoC 2-phenoxyethanol		
Hand disinfection by hygienic hand wash is performed in the hygienic sluice of the food processing plant before entering or after leaving high risk or production area. The professional user applies the product to wet hands, rubs for 60 sec. and thoroughly rises with running tap water. During the related steps, dermal and inhalation exposure may occur. For the dermal route of exposure, no (semi-)quantitative assessment is deemed necessary according to the draft CAR on 2-phenoxyethanol. The inhalation exposure towards vapours has been assessed with ConsExpo Web, exposure to vapour model according to HEAdhoc Recommendation 9 on Hand disinfection in hospitals. The assessment for hospital rooms, using a ventilation rate of 1.5/hr is considered to also cover relevant settings in the food and beverage industry. Product amount was calculated as follows (application rate x disinfected surface x density): 3 mL/appl. X 10 appl./day x 1.05 g/mL = 31.5 g All relevant input parameters are listed in the table below.		
	Parameters acc. to HEAdhoc 9	**Value**
Tier 1	Concentration of SoC – RTU product	0.9%
	Concentration of SoC **–** in-use	0.9%
	Density	1.05 g/mL
	Model for dermal exposure: n.r. for local assessment	n.r.
	Application rate (applicant data)	3 mL/appl.
	Application frequency (applicant data)	10x/day
	Model for inhalation exposure (vapour): Instantaneous release	ConsExpo Web model
	Exposure duration	10 min
	Product amount	31.5 g
	Weight fraction substance	0.9%
	Room volume	80 m^3
	Ventilation rate	1.5/h
	Vapour pressure	2.1 Pa at 30°C
	Application temperature	30°C
	Mass transfer coefficient (new ConsExpo default)	10 m/hr
	Systemic assessment	
	Dermal absorption (2-PE draft CAR)	75%

Scenario 2.1 - Application phase: Hand disinfection by hygienic hand wash – SoC 2-phenoxyethanol

Description of Scenario 2.1 - Application phase: Hand disinfection by hygienic hand wash – SoC 2-phenoxyethanol		
	Product amount with contact to hand	0.1 % of initial amount
	No PPE (gloves)	0% protection
	No RPE (mask/respirator)	0% protection
Tier-2	Model for inhalation exposure (vapour): Constant rate	ConsExpo Web model
	Exposure duration	10 min
	Product amount	3.15 g
	Emission duration	1 min

Calculations for Scenario 2.1 - Application phase: Hand disinfection by hygienic hand wash – SoC 2-phenoxyethanol

local assessment

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Scenario 2.1 (SoC)	1	Aerosol: n.r. Vapour: 3.1 Combined: 3.1 8 h-TWA: 0.065	n.r.	n.r.	Inhalation: 3.1 8 h-TWA: 0.065 Dermal: n.r.
	2	Aerosol: n.r. Vapour: 0.3 Combined: 0.3 8 h-TWA: 0.0006	n.r.	n.r.	Inhalation: 0.3 8 h-TWA: 0.0006 Dermal: n.r.

systemic assessment

Summary table: estimated exposure from professional uses					
Exposure scenario	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Scenario 2.1 (SoC)	1	Aerosol: n.r. Vapour: 0.108 Combined: 0.108	0.0354	n.r.	0.143
	2	Aerosol: n.r. Vapour: 0.011 Combined: 0.011	0.0354	n.r.	0.046

According to the applicant, products are applied at maximum 10 times per working day. The systemic assessment for the SoC 2-phenoxyethanol leads to acceptable exposure when considering 10 applications per day. The conclusion is considered to expand also to hydrogen peroxide, for which only a local assessment is triggered.

Further information and considerations on Scenario 2.1 - Application phase: Hand disinfection by hygienic hand wash – hydrogen peroxide and SoC 2-phenoxyethanol

During hand disinfection, the maximum concentration of hydrogen peroxide is 1.61%. Maximum concentrations of SoCs are: sodium lauryl sulfate (3.88%), sodium caprylolglutamate (2.0%) and sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, 1.12%). With respect to local effects, this results in a classification with H319 (Eye Irrit. 2) triggering a qualitative exposure and risk assessment.

The respective qualitative exposure and risk assessment in line with the BPR Guidance HH is provided in chapter 2.2.6.3 Risk characterisation for human health - Local effects.

Scenario 3.1 - Post-application phase: Disposal of empty containers

Description of Scenario 3.1 - Post-application phase: Disposal of empty containers
The professional user, after having used up the product, disposes of empty containers (dispenser bottles). During replacement of containers, direct contact of the disinfectant is excluded and dermal or inhalation exposure is not expected. The conclusion on negligible exposure is further justified as [redacted].

Scenario 3.1 - Post-application phase: Disposal of empty containers – SoC 2-phenoxyethanol

Description of Scenario 3.1 - Post-application phase: Disposal of empty containers – SoC 2-phenoxyethanol
The professional user, after having used up the product, disposes of empty containers (dispenser bottles). During replacement of containers, direct contact of the disinfectant is excluded and dermal or inhalation exposure is not expected. For the SoC 2-phenoxyethanol, having a systemic mode of action, exposure is considered covered by the mixing and loading phase.

Scenario 4.1 - Secondary inhalation exposure of professional bystanders during hand disinfection by hygienic hand wash

Description of Scenario 4.1 - Secondary inhalation exposure of professional bystanders during hand disinfection by hygienic hand wash
Containers and dispensers are generally used up, therefore, there is no primary exposure of the professional. During the related steps, inhalation exposure may occur. Dermal exposure of bystanders is considered negligible, since direct contact to the product may only happen accidentally. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.1.

Scenario 4.1 - Secondary inhalation exposure of professional bystanders during hand disinfection by hygienic hand wash – SoC 2-phenoxyethanol

Description of Scenario 4.1 - Secondary inhalation exposure of professional bystanders during hand disinfection by hygienic hand wash – SoC 2-phenoxyethanol
Containers and dispensers are generally used up, therefore, there is no primary exposure of the professional. During the related steps, inhalation exposure may occur. Dermal exposure of bystanders is considered negligible, since direct contact to the product may only happen accidentally. Exposure is expected to be at maximum in the same range as for the person performing the task (i.e. during the application phase). Please refer to scenario 2.1 (SoC).

SoC citric acid

Citric acid is a biocidal active substance present at a concentration of 0.9% in the products of mSPC10. According to the SoC guidance, for active substances present at ≥ 0.1%, a fully quantitative exposure and risk assessment according to Band C is formally triggered.

However, the applicant claims that in the case of citric acid such an assessment can be waived [redacted]:

[redacted]

Against this background it is considered that exposure towards 0.9% citric acid via hand disinfectants is acceptable, [redacted].

*Combined scenarios – **H_2O_2***

Not relevant.

The active substance only exerts local effects and potential systemic effects are secondary to its direct irritating reactivity. Hence, combination of different work tasks (i.e. M/L, application, post-application phase) is not necessary. Instead, relevant scenarios per intended use are listed separately:

Local assessment

Summary table: estimated exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Use # 10.1 – (PT1) Hygienic hand wash					
Scenario 1.2, worst-case for RTU products	1	Aerosol: n.r. Vapour: 0.01 Combined: 0.01	1.61	n.r.	Inhalation: 0.01 Dermal: 1.61
Scenario 2.1	1	Aerosol: n.r. Vapour: 5.6 Combined: 5.6	1.61	n.r.	Inhalation: 5.6 Dermal: 1.61
	2/none	Aerosol: n.r. Vapour: 0.54 Combined: 0.54	1.61	n.r.	Inhalation: 0.54 Dermal: 1.61
Scenario 3.2	1	Negligible exposure			
Scenario 4.1	1	Aerosol: n.r. Vapour: 5.6 Combined: 5.6	n.r.	n.r.	Inhalation: 5.6 Dermal: 1.61
	2/none	Aerosol: n.r. Vapour: 0.54 Combined: 0.54	n.r.	n.r.	Inhalation: 0.54 Dermal: 1.61

Combined scenarios – **SoC 2-PE**

The SoC local systemic effects. Hence, combination of different work tasks (i.e. M/L, application, post-application phase) is not necessary. Instead, relevant scenarios per intended use are listed separately:

Local assessment

Summary table: estimated exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/m³]**	**Estimated dermal exposure [%]**	**Estimated oral exposure [%]**	**Estimated exposure [mg/m³ or %]**
Use # 10.1 – (PT1) Hygienic hand wash					
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 1.10E-05 Combined: 1.10E-05 8 h-TWA: 1.72E-08	n.r.	n.r.	Inhalation: 1.10E-05 8 h-TWA: 1.72E-08 Dermal: n.r.
Scenario 2.1 (SoC)	1	Aerosol: n.r. Vapour: 3.1 Combined: 3.1 8 h-TWA: 0.065	n.r.	n.r.	Inhalation: 3.1 8 h-TWA: 0.065 Dermal: n.r.
	2/none	Aerosol: n.r. Vapour: 0.3 Combined: 0.3 8 h-TWA: 0.0006	n.r.	n.r.	Inhalation: 0.3 8 h-TWA: 0.0006 Dermal: n.r.
Scenario 3.2 (SoC)	1	Negligible exposure			
Scenario 4.1 (SoC)	1	Aerosol: n.r. Vapour: 3.1 Combined: 3.1 8 h-TWA: 0.065	n.r.	n.r.	Inhalation: 3.1 8 h-TWA: 0.065 Dermal: n.r.
	2/none	Aerosol: n.r. Vapour: 0.3 Combined: 0.3 8 h-TWA: 0.0006	n.r.	n.r.	Inhalation: 0.3 8 h-TWA: 0.0006 Dermal: n.r.

The SoC exerts systemic effects. Hence, different work tasks (i.e. M/L, application, post-application phase) have been combined.

Systemic assessment

Summary table: estimated exposure from professional uses					
Relevant scenarios	**Tier/ PPE**	**Estimated inhalation exposure [mg/kg bw/d]**	**Estimated dermal exposure [mg/kg bw/d]**	**Estimated oral exposure [mg/kg bw/d]**	**Estimated exposure [mg/kg bw/d]**
Use # 10.1 – (PT1) Hygienic hand wash					
Scenario 1.2 (SoC)	1	Aerosol: n.r. Vapour: 2.89E-09 Combined: 2.89E-09	5.91E-02	n.r.	5.91E-02
Scenario 2.1 (SoC)	1	Aerosol: n.r. Vapour: 0.108 Combined: 0.108	0.0354	n.r.	0.143
	2/none	Aerosol: n.r. Vapour: 0.011 Combined: 0.011	0.0354	n.r.	0.046
Scenario 3.2 (SoC)	1	Covered by 1.2 (SoC)			
Scenario 4.1 (SoC)	1	Aerosol: n.r. Vapour: 0.108 Combined: 0.108	n.r.	n.r.	0.108
	2/none	Aerosol: n.r. Vapour: 0.011 Combined: 0.011	n.r.	n.r.	0.011
Combined 1.2 + 2.1 (SoC)	1	Aerosol: n.r. Vapour: 1.08E-01 Combined: 1.08E-01	9.45E-02	n.r.	2.02E-01
	2/none	Aerosol: n.r. Vapour: 1.08E-02 Combined: 1.08E-02	9.45E-02	n.r.	1.05E-01

Non-professional exposure

Not relevant.

Exposure of the general public

Not relevant.

Products are applied in food production plants (hygienic sluice) with no access of the general public.

Monitoring data

Summary of field studies is provided in the confidential Annex.

Dietary exposure

Not relevant

Information of non-biocidal use of the active substance

See life sciences cleanroom setting 1 above.

Estimating Livestock Exposure to Active Substances used in Biocidal Products

Not relevant.

Estimating transfer of biocidal active substances into foods as a result of professional and/or industrial application(s)

Not relevant.

Estimating transfer of biocidal active substances into foods as a result of non-professional use

Not relevant.

Exposure associated with production, formulation and disposal of the biocidal product

See life sciences cleanroom setting 1 above.

Aggregated exposure

Not relevant. [redacted]

Summary of exposure assessment

In the following tables, only modelled exposure is reported. Results from the field studies can be found in the confidential Annex.

Setting 1: Life sciences cleanroom - PT2

Hydrogen peroxide

Scenarios and values to be used in risk assessment			
Scenario number	**Exposed group (professionals, bystanders)**	**Tier/ PPE**	**Estimated exposure [mg/m³ or %]**
Scenario 1.2, worst-case for RTU liquids	M/L phase: Manual mixing and loading of RTU product (trigger sprayer, bucket)	1/none	Inhalation: 0.01 mg/m³ Dermal: 6.6%
Scenario 2.1	Application phase: Disinfection of small surfaces by spraying using trigger sprayer and dry wipe	1/none	Inhalation: 0.74 mg/m³ Dermal: 6.6%
Scenario 2.2	Application phase: Disinfection of floors by mopping using flat mop and bucket	1/none	Inhalation: 6.6 mg/m³ Dermal: 6.6%
		2/RPE10	Inhalation: 3.5 mg/m³ (w/o RPE); 0.35 mg/m³ (RPE10) Dermal: 6.6%
Scenario 3.1	Post-application phase: Cleaning of spray equipment	Negligible exposure covered by the application phase	
Scenario 3.2	Post-application phase: Disposal of disinfection solution	Negligible exposure covered by the application phase	
Scenario 4.1	Secondary inhalation exposure of professional bystander during disinfection of small surfaces in life sciences cleanrooms	1/none	Inhalation: 0.74 mg/m³ Dermal: n.r.
Scenario 4.2	Secondary inhalation exposure of professional bystander during disinfection of floors in life sciences cleanrooms	1/none	Inhalation: 6.6 mg/m³ Dermal: n.r.
		2/RPE10	Inhalation: 3.5 mg/m³ (w/o RPE); 0.35 mg/m³ (RPE10) Dermal: n.r.

Setting 2: Industry - PT2

Hydrogen peroxide

All scenarios covered by field studies. Results are reported in the confidential Annex.

SoC n-propanol

Scenarios and values to be used in risk assessment			
Scenario number	**Exposed group (professionals, bystanders)**	**Tier/ PPE**	**Estimated Exposure [mg/kg bw/d]**
Scenario 1.2 **SoC nPA**	M/L phase: Manual mixing and loading of RTU products (trigger sprayer)	1/none	2.43E-02 mg/kg bw/d
Scenario 2.1 **SoC nPA**	Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe - PT2	1/none	2.51 mg/kg bw/d
Scenario 3.1 **SoC nPA**	Post-application phase: Cleaning of spray equipment (trigger sprayer)	Negligible exposure covered by the application phase	
Scenario 4.1 **SoC nPA**	Secondary inhalation exposure of professional bystanders during disinfection of small surfaces in industry by spraying using trigger sprayer and dry wipe	1/none	2.50 mg/kg bw/d
Combined scenarios 1.2 + 2.1 **SoC nPA**		1/none	2.53 mg/kg bw/d

Setting 3: Food and beverage industry PT4

Hydrogen peroxide

Scenarios and values to be used in risk assessment			
Scenario number	**Exposed group (professionals, bystanders)**	**Tier/ PPE**	**Estimated Exposure [mg/m³ or %]**
Scenario 1.3	M/L phase: Automated mixing and loading of soluble concentrates (aseptic filling, CIP)	1/none	Inhalation: 0.035 mg/m³ Dermal: 36.75%
Scenario 1.4	M/L phase: Automated mixing and loading of RTU products (fixed installed spraying)	1/none	Inhalation: 0.0048 mg/m³ Dermal: 1.0%
Scenario 2.1	Application phase: Automated disinfection application in industrial process equipment by fixed installed spraying	1/none	Inhalation: 0.94 mg/m³ Dermal: 1.0%
Scenario 2.2	Application phase: Disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)	1/none	Inhalation: [redacted] Dermal: 36.75%
Scenario 2.3	Application phase: Disinfection by CIP (closed process)	Closed system, no exposure	
Scenario 3.1	Post-application phase: Maintenance of industrial process equipment for fixed installed spraying	Post-application outside food processing time, no exposure	
Scenario 3.2	Post-application phase: Maintenance of packaging (aseptic filling) machine	1/none	Inhalation: [redacted] Dermal: 36.75%
Scenario 3.3	Post-application phase: Rinsing of CIP installations	Closed system, no exposure	
Scenario 4.1	Secondary inhalation exposure of professional bystanders during automated disinfection application in industrial process equipment by fixed installed spraying	Application outside food processing time, no exposure	
Scenario 4.2	Secondary inhalation exposure of professional bystanders during disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process)	1/none	Inhalation: [redacted] Dermal: n.r.
Scenario 4.3	Secondary inhalation exposure of professional bystanders during disinfection by CIP (closed process)	Closed system, no exposure	

SoC n-propanol

Scenarios and values to be used in risk assessment			
Scenario number	**Exposed group (professionals, bystanders)**	**Tier/ PPE**	**Estimated Exposure [mg/kg bw/d]**
Scenario 1.2 **SoC nPA**	M/L phase: Manual mixing and loading of RTU products (trigger sprayer)	1/none	2.43E-02 mg/kg bw/d
Scenario 2.4 **SoC nPA**	Application phase: Disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe	1/none	0.1368 mg/kg bw/d
Scenario 3.4 **SoC nPA**	Post-application phase: Cleaning of spray equipment (trigger sprayer)	Negligible exposure covered by the application phase	
Scenario 4.4 **SoC nPA**	Secondary inhalation exposure of professional bystanders during disinfection of small surfaces in food processing plants by spraying using trigger sprayer and dry wipe	1/none	0.1083 mg/kg bw/d
Combined 1.2 + 2.4 **SoC nPA**		1/none	0.161 mg/kg bw/d

Setting 4: Teat disinfection - PT3

Hydrogen peroxide

Scenarios and values to be used in risk assessment			
Scenario number	**Exposed group (professionals, bystanders)**	**Tier/ PPE**	**Estimated exposure [mg/m³ or %]**
Scenario 1.2	M/L phase: Manual mixing and loading of RTU product (dip/foam cup)	1/none	Inhalation: 0.0021 mg/m³ Dermal: 1.61%
Scenario 2.1	Application phase: Teat disinfection pre-milking by manual dipping using a dip/foam cup	Negligible dermal exposure. Inhalation exposure covered by 3.1	
Scenario 3.1	Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking	1/none	Inhalation: 0.54 mg/m³ Dermal: 1.61%
Scenario 3.2	Post-application phase: Cleaning of equipment after application (dip/foam cup)	1/none	Inhalation: n.r. Dermal: 1.61%
Scenario 4.1	Secondary inhalation exposure of professional bystanders during teat disinfection	1/none	Inhalation: 0.54 mg/m³ Dermal: n.r.

SoC 2-phenoxyethanol (local)

Scenarios and values to be used in risk assessment			
Scenario number	**Exposed group (professionals, bystanders)**	**Tier/ PPE**	**Estimated exposure [mg/m³ or %]**
Scenario 1.2 **SoC 2-PE**	M/L phase: Manual mixing and loading of RTU products (dip/foam cup)	1/none	Inhalation: 7.80E-06 mg/m³ 8 h-TWA: 1.22E-08 mg/m³ Dermal: n.r.
Scenario 2.1 **SoC 2-PE**	Application phase: Teat disinfection pre-milking by manual dipping using a dip/foam cup	Negligible dermal exposure. Inhalation exposure covered by 3.1 (SoC)	
Scenario 3.1 **SoC 2-PE**	Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking	1/none	Inhalation: 2.20E-03 mg/m³ 8 h-TWA: 8.25E-04 mg/m³ Dermal: n.r.
Scenario 3.2 **SoC 2-PE**	Post-application phase: Cleaning of equipment after application (dip/foam cup)	1/none	Inhalation: n.r. Dermal: n.r.
Scenario 4.1 **SoC 2-PE**	Secondary inhalation exposure of professional bystanders during teat disinfection	1/none	Inhalation: 2.20E-03 mg/m³ 8 h-TWA: 8.25E-04 mg/m³ Dermal: n.r.

SoC 2-phenoxyethanol (systemic)

Scenarios and values to be used in risk assessment			
Scenario number	**Exposed group (professionals, bystanders)**	**Tier/ PPE**	**Estimated exposure [mg/kg bw/d]**
Scenario 1.2 **SoC 2-PE**	M/L phase: Manual mixing and loading of RTU products (dip/foam cup)	1/none	1.18E-03 mg/kg bw/d
Scenario 2.1 **SoC 2-PE**	Application phase: Teat disinfection pre-milking by manual dipping using a dip/foam cup	Negligible dermal exposure. Inhalation exposure covered by 3.1 (SoC)	
Scenario 3.1 **SoC 2-PE**	Post-application phase: Cleaning of teats and removal of freshly applied product pre-milking	1/none	3.42E-02 mg/kg bw/d
Scenario 3.2 **SoC 2-PE**	Post-application phase: Cleaning of equipment after application (dip/foam cup)	1/none	5.18E-04 mg/kg bw/d
Scenario 4.1 **SoC 2-PE**	Secondary inhalation exposure of professional bystanders during teat disinfection	1/none	1.39E-04 mg/kg bw/d
Combined 1.2 + 3.1 + 3.2 **SoC 2-PE**		1/none	3.59E-02 mg/kg bw/d

Setting 5: Health care applications - PT2

Hydrogen peroxide

All scenarios covered by field studies. Results are reported in the confidential Annex.

Setting 6/7: Institutional applications - PT2/PT4

Hydrogen peroxide

Scenarios and values to be used in risk assessment			
Scenario number	**Exposed group (professionals, bystanders)**	**Tier/ PPE**	**Estimated exposure [mg/m^3 or %]**
Scenario 1.1, worst-case for soluble concentrates	M/L phase: Manual mixing and loading of soluble concentrates (wall mounted device)	1/none	Inhalation: 0.014 mg/m^3 Dermal: 5.45%
Scenario 2.1	Application phase: Routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device	1/none	Inhalation: 2.35 mg/m^3 Dermal: 0.818%
		2/none	Inhalation: 1.11 mg/m^3 Dermal: 0.818%
Scenario 3.1	Post-application phase: Rinsing of floors by downward spraying with a wall mounted device	1/none	Inhalation: 2.35 mg/m^3 Dermal: 0.818%
		2/none	Inhalation: 1.11 mg/m^3 Dermal: 0.818%
Scenario 4.1	Secondary inhalation exposure of professional bystanders during routine disinfection of large surfaces in large non-food areas (e.g. kitchen or canteen floors) by downward spraying with a wall mounted device	1/none	Inhalation: 2.35 mg/m^3 Dermal: n.r.
		2/none	Inhalation: 1.11 mg/m^3 Dermal: n.r.

Setting 8: Hygienic hand wash - PT1

Hydrogen peroxide

Scenarios and values to be used in risk assessment			
Scenario number	**Exposed group (professionals, bystanders)**	**Tier/ PPE**	**Estimated exposure [mg/m³ or %]**
Scenario 1.2, worst-case for RTU liquids	M/L phase: Manual mixing and loading of RTU products (dispenser)	1/none	Inhalation: 0.01 mg/m³ Dermal: 1.61%
Scenario 2.1	Application phase: Hand disinfection by hygienic hand wash	1/none	Inhalation: 5.6 mg/m³ Dermal: 1.61%
		2/none	Inhalation: 0.54 mg/m³ Dermal: 1.61%
Scenario 3.1	Post-application phase: Disposal of empty containers	Negligible exposure	
Scenario 4.1	Secondary inhalation exposure of professional bystanders during hand disinfection by hygienic hand wash	1/none	Inhalation: 5.6 mg/m³ Dermal: n.r.
		2/none	Inhalation: 0.54 mg/m³ Dermal: n.r.

SoC 2-phenoxyethanol (local)

Scenarios and values to be used in risk assessment			
Scenario number	**Exposed group (professionals, bystanders)**	**Tier/ PPE**	**Estimated exposure [mg/m³ or %]**
Scenario 1.2 **SoC 2-PE**	M/L phase: Manual mixing and loading of RTU products (dispenser)	1/none	Inhalation: 1.10E-05 mg/m³ 8 h-TWA: 1.72E-08 mg/m³ Dermal: n.r.
Scenario 2.1 **SoC 2-PE**	Application phase: Hand disinfection by hygienic hand wash	1/none	Inhalation: 3.1 mg/m³ 8 h-TWA: 0.065 mg/m³ Dermal: n.r.
		2/none	Inhalation: 0.3 mg/m³ 8 h-TWA: 0.0006 mg/m³ Dermal: n.r.
Scenario 3.1 **SoC 2-PE**	Post-application phase: Disposal of empty containers	Negligible exposure, covered by M/L phase	
Scenario 4.1 **SoC 2-PE**	Secondary inhalation exposure of professional bystanders during hand disinfection by hygienic hand wash	1/none	Inhalation: 3.1 mg/m³ 8 h-TWA: 0.065 mg/m³ Dermal: n.r.
		2/none	Inhalation: 0.3 mg/m³ 8 h-TWA: 0.0006 mg/m³ Dermal: n.r.

SoC 2-phenoxyethanol (systemic)

Scenarios and values to be used in risk assessment			
Scenario number	**Exposed group (professionals, bystanders)**	**Tier/ PPE**	**Estimated exposure [mg/kg bw/d]**
Scenario 1.2 **SoC 2-PE**	M/L phase: Manual mixing and loading of RTU products (dispenser)	1/none	5.91E-02 mg/kg bw/d
Scenario 2.1 **SoC 2-PE**	Application phase: Hand disinfection by hygienic hand wash	1/none	0.143 mg/kg bw/d
		2/none	0.046 mg/kg bw/d
Scenario 3.1 **SoC 2-PE**	Post-application phase: Disposal of empty containers	Negligible exposure, covered by M/L phase	
Scenario 4.1 **SoC 2-PE**	Secondary inhalation exposure of professional bystanders during hand disinfection by hygienic hand wash	1/none	0.108 mg/kg bw/d
		2/none	0.011 mg/kg bw/d
Combined 1.2 + 2.1 **SoC 2-PE**		1/none	2.02E-01 mg/kg bw/d
		2/none	1.05E-01 mg/kg bw/d

2.2.6.3 Risk characterisation for human health

Reference values to be used in Risk Characterisation – hydrogen peroxide

The following reference values have been taken from the list of endpoints of the H_2O_2 AR.

Reference	**Study**	**NOAEC (LOAEC)**	**AF[1]**	**Correction for oral absorption**	**Value**
AEC inhalation acute	90-day inhalation study in rats	10 mg/m^3	8	n.a.	1.25 mg/m^3
AEC inhalation medium-term	90-day inhalation study in rats	10 mg/m^3	8	n.a.	1.25 mg/m^3
AEC inhalation long-term	90-day inhalation study in rats	10 mg/m^3	8	n.a.	1.25 mg/m^3
OEL	Not established				
ARfD	Not established				
ADI	ADI value is not established, the substance is not systemically available				

[1] Based on the observation that medium and long-term NOAECs in inhalative rat studies were not lower than the NOAEC for acute systemic neurotoxicity, and on comparison between acute volunteer and occupational

exposure studies, a single overall NOAEC/NOAEL is assumed to cover all time frames (acute-/medium-term/long-term) also for humans. AF based on the H_2O_2 active substance assessment report (Finnish Safety and Chemicals Agency, 2015).

Reference values to be used in Risk Characterisation – SoC n-propanol

The following reference values have been taken from the list of endpoints of the nPA AR.

Reference	Study	NOAEL (LOAEL)	AF	Value
AEL acute	Rat inhalation developmental toxicity studies (foetal skeletal malformations)	2.76 g/kg bw/d	100	27.6 mg/kg bw/d
AEL medium-term	Rat 13-week inhalation study (impairment of male fertility parameters)	1.83 g/kg bw/d	100	18.3 mg/kg bw/d
AEL long-term	Rat 13-week inhalation study (impairment of male fertility parameters)	1.83 g/kg bw/d	200[1]	9.2 mg/kg bw/d
ARfD	27.6 mg/kg bw (if residues in food and feed)			
ADI	9.2 mg/kg bw/d			

[1] In addition to default AF of 100, additional AF of 2 for extrapolation from medium-term to long-term systemic toxicity is applied

Reference values to be used in Risk Characterisation – SoC 2-phenoxyethanol

The following reference values have been taken from the 2-PE draft CAR (version of October 2019).

Reference	Study	NOAEL (NOAEC)	AF	Value
AEL oral systemic acute	90-day drinking water rat study	0.37 g/kg bw/d	100	3.7 mg/kg bw/d
AEL dermal systemic acute	90 day dermal rabbit study	2.81 g/kg bw/d	25	15 mg/kg bw/d [1]
AEL oral systemic medium-term	90-day drinking water rat study	0.37 g/kg bw/d	100	3.7 mg/kg bw/d
AEL dermal systemic medium-term	90 day dermal rabbit study	2.81 g/kg bw/d	25	15 mg/kg bw/d [1]
AEL oral systemic long-term	2-yr drinking water rat study	0.25 g/kg bw/d	100	2.5 mg/kg bw/d
AEL dermal systemic long-term	90 day dermal rabbit study	2.81 g/kg bw/d	50[2]	7.5 mg/kg bw/d [1]

AEC inhalation local acute	14 day rat study	48.25 mg/m^3	25	1.93 mg/m^3
AEC inhalation local medium-term	14 day rat study	48.25 mg/m^3	75	0.64 mg/m^3
AEC inhalation local long-term	14 day rat study	48.25 mg/m^3	150	0.32 mg/m^3
ARfD	90-day drinking water rat study	0.37 g/kg bw/d	100	3.7 mg/kg bw/d
ADI	2-yr drinking water rat study	0.25 g/kg bw/d	100	2.5 mg/kg bw/d

[1] In addition dermal absorption of 75 % is taken into account
[2] In addition to default AF of 25, additional AF of 2 for extrapolation from medium-term to long-term systemic toxicity is applied

In the 2-PE draft CAR (version of October 2019), it is reported that there are clear differences in the effects of 2-phenoxyethanol with different exposure routes. Therefore, route specific reference values have been derived instead of overall systemic AEL value.

The same approach as described in the 2-PE draft CAR has been followed:

[redacted]

Maximum residue limits or equivalent

Residue definitions – hydrogen peroxide

None according to H_2O_2 AR.

Residue definitions – SoC n-propanol

None according to nPA AR.

Residue definitions – SoC 2-phenoxyethanol

None according to 2-PE draft CAR (version of October 2019).

Specific reference value for groundwater

Hydrogen peroxide

None according to H_2O_2 AR.

SoC n-propanol

None according to nPA AR.

SoC 2-phenoxyethanol

None according to 2-PE draft CAR (version of October 2019).

Risk for industrial users

Not relevant.

Risk for professional users

In the following tables, only modelled exposure (mean event concentrations using ConsExpo Web tool) and related risk is reported. Results from the field studies can be found in the confidential Annex. Assessing the local dermal exposure of H_2O_2 the concentration of H_2O_2 in the product is compared with the NOAEC value for skin irritation (irritating to skin if >35 %).

Setting 1: Life sciences cleanroom - PT2 (**mSPC1** (6.0-6.6% H_2O_2); **mSPC5** (1.5% H_2O_2) and **mSPC11** (1.5% H_2O_2))

Hydrogen peroxide

Systemic effects – quantitative assessment
Not relevant.

Combined scenarios
Not relevant.

Local effects

Local effects – (semi-)quantitative assessment

Task/ Scenario	Tier	Estimated inhalation exposure [mg/m³]	%AEC [AEC=1.25 mg/m³]	Estimated dermal exposure [%]	%NOAEC [NOAEC=35%]	Acceptable [yes/no]
Scenario 1.2, worst-case for RTU liquids	1	0.01 mg/m³	0.8%	6.6%	18.9%	yes
Scenario 2.1	1	0.74 mg/m³	59.2%	6.6%	18.9%	yes
Scenario 2.2	1	6.6 mg/m³	528%	6.6%	18.9%	no
	2a	2.8 mg/m³	224%	6.6%	18.9%	no
	2b	3.5 mg/m³ (w/o RPE); 0.35 mg/m³ (RPE10)	280% (w/o RPE) 28.0% (RPE10)	6.6%	18.9%	yes (RPE10)
Scenario 3.1	1	Negligible exposure covered by the application phase				yes
Scenario 3.2	1	Negligible exposure covered by the application phase				yes
Scenario 4.1	1	0.74 mg/m³	59.2%	n.r.	n.r.	yes
Scenario 4.2	1	6.6 mg/m³	528%	n.r.	n.r.	no
	2	3.5 mg/m³ (w/o RPE);	280% (w/o RPE)	n.r.	n.r.	yes (RPE10)

Task/ Scenario	Tier	Estimated inhalation exposure [mg/m³]	%AEC [AEC=1.25 mg/m³]	Estimated dermal exposure [%]	%NOAEC [NOAEC=35%]	Acceptable [yes/no]
		0.35 mg/m³ (RPE10)	28.0% (RPE10)			

Conclusion on local effects - (semi-)quantitative assessment
Scenarios 1.2, 2.1, 3.1, 3.2 and 4.1 in **mSPC1** lead to acceptable use in the Tier-1 assessment.
Scenarios 2.2 and 4.2 in mSPC1 lead to acceptable use in the Tier-2 assessment if RPE10 is worn.

Scenarios 2.2 and 4.2 are applicable to the uses:
Use # 1.2 – (PT2) Disinfection of life sciences cleanrooms by mopping using flat mop and bucket
Use # 1.4 – (PT2) Disinfection of life sciences cleanrooms by mopping impregnated RTU mop wipes

This leads to the mitigation measures for Use# 1.2:
The use of eye protection during handling of the product is mandatory.
Use of respiratory protective equipment (RPE) providing a protection factor of 10 is mandatory for professionals applying the product and for professional bystanders that are in the treated area. At least an air purifying respirator with helmet/hood/mask (TH1/TM1), or a half/full mask with combination filter gas/P2 is required (filter type (code letter, colour) to be specified by the authorisation holder within the product information). For repeated application or re-entry into the room, the professional needs to observe the same set of risk mitigation measures (i.e. RPE10) as for the first application in the room.

This leads to the mitigation measures for Use# 1.4:
Avoid hand to eye transfer.
Use of respiratory protective equipment (RPE) providing a protection factor of 10 is mandatory for professionals applying the product and for professional bystanders that are in the treated area. At least an air purifying respirator with helmet/hood/mask (TH1/TM1), or a half/full mask with combination filter gas/P2 is required (filter type (code letter, colour) to be specified by the authorisation holder within the product information). For repeated application or re-entry into the room, the professional needs to observe the same set of risk mitigation measures (i.e. RPE10) as for the first application in the room.

Setting 2: Industry - PT2 (mSPC2 (1.0% H_2O_2); **mSPC6** (2.0-2.3% H_2O_2); **mSPC8** (1.0% H_2O_2) and **mSPC12** (2.0-2.3% H_2O_2)).

Hydrogen peroxide

Systemic effects – quantitative assessment
Not relevant.

Combined scenarios
Not relevant.

Local effects

Local effects – (semi-)quantitative assessment
All scenarios have been addressed by field studies. Results are reported in the confidential Annex.

SoC n-propanol

Systemic effects – quantitative assessment

Task/ Scenario	Tier	AEL [mg/kg bw/d]	Estimated uptake [mg/kg bw/d]	Estimated uptake/AEL [%]	Acceptable [yes/no]
Scenario 1.2 **SoC nPA**	1	9.2 mg/kg bw/d	2.43E-02 mg/kg bw/d	0.26%	yes
Scenario 2.1 **SoC nPA**	1	9.2 mg/kg bw/d	2.51 mg/kg bw/d	27.3%	yes
Scenario 3.1 **SoC nPA**	1	Negligible exposure covered by the application phase			yes
Scenario 4.1 **SoC nPA**	1	9.2 mg/kg bw/d	2.50 mg/kg bw/d	27.2%	yes

Combined scenarios

Scenarios combined	Tier	AEL [mg/kg bw/d]	Estimated uptake [mg/kg bw/d]	Estimated uptake/AEL [%]	Acceptable [yes/no]
Combined scenarios 1.2 + 2.1 **SoC nPA**	1	9.2 mg/kg bw/d	2.53 mg/kg bw/d	27.5%	yes

Conclusion on systemic effects
Acceptable use can be demonstrated for all scenarios assessed.

Local effects
Not relevant.

Setting 3: Food and beverage industry PT4 (**mSPC2** (1.0% H_2O_2); **mSPC3** (35.0-36.75% H_2O_2); **mSPC6** (2.0-2.3% H_2O_2); **mSPC8** (1.0% H_2O_2) and **mSPC12** (2.0-2.3% H_2O_2)).

Hydrogen peroxide

Systemic effects – quantitative assessment
Not relevant.

Combined scenarios
Not relevant.

Local effects

Local effects – (semi-)quantitative assessment

Task/ Scenario	Tier	Estimated inhalation exposure [mg/m³]	%AEC [AEC=1.25 mg/m³]	Estimated dermal exposure [%]	%NOAEC [NOAEC=35%]	Acceptable [yes/no]
Scenario 1.3	1	0.035 mg/m³	2.80%	36.75%	105%	Inhalation: yes Dermal: no, see qualitative assessment
Scenario 1.4	1	0.0048 mg/m³	0.38%	1.0%	2.86%	yes
Scenario 2.1	1	0.94 mg/m³	75.2%	1.0%	2.86%	yes

Task/ Scenario	Tier	Estimated inhalation exposure [mg/m³]	%AEC [AEC=1.25 mg/m³]	Estimated dermal exposure [%]	%NOAEC [NOAEC=35%]	Acceptable [yes/no]
Scenario 2.2	1	[redacted]	[redacted]	36.75%	105%	Inhalation: yes Dermal: no, see qualitative assessment
Scenario 2.3	1	Closed system, no exposure				yes
Scenario 3.1	1	Post-application outside food processing time, no exposure				yes
Scenario 3.2	1	[redacted]	[redacted]	36.75%	105%	Inhalation: no, see qualitative assessment Dermal: no, see qualitative assessment
Scenario 3.3	1	Closed system, no exposure				yes
Scenario 4.1	1	Application outside food processing time, no exposure				yes
Scenario 4.2	1	[redacted]	[redacted]	n.r.	n.r.	yes
Scenario 4.3	1	Closed system, no exposure				yes

Conclusion on local effects - (semi-)quantitative assessment
Scenarios 1.4, 2.1, 2.3, 3.1, 3.3, 4.1, 4.2 and 4.3 lead to acceptable use in the Tier-1 assessment.
For scenarios 1.3, 2.2 and 3.2 a qualitative assessment is triggered (please see below).

SoC n-propanol

Systemic effects – quantitative assessment

Task/ Scenario	Tier	AEL [mg/kg bw/d]	Estimated uptake [mg/kg bw/d]	Estimated uptake/AEL [%]	Acceptable [yes/no]
Scenario 1.2 **SoC nPA**	1	9.2 mg/kg bw/d	2.43E-02 mg/kg bw/d	0.26%	yes
Scenario 2.4 **SoC nPA**	1	9.2 mg/kg bw/d	0.1368 mg/kg bw/d	1.49%	yes

Scenario 3.4 **SoC nPA**	1	Negligible exposure covered by the application phase			yes
Scenario 4.4 **SoC nPA**	1	9.2 mg/kg bw/d	0.1083 mg/kg bw/d	1.18%	yes

Combined scenarios

Scenarios combined	**Tier**	**AEL [mg/kg bw/d]**	**Estimated uptake [mg/kg bw/d]**	**Estimated uptake/AEL [%]**	**Acceptable [yes/no]**
Combined 1.2 + 2.4 **SoC nPA**	1	9.2 mg/kg bw/d	0.161 mg/kg bw/d	1.75%	yes

Conclusion on systemic effects
Acceptable use can be demonstrated for all scenarios assessed.

Local effects
Not relevant.

Setting 4: Teat disinfection - PT3 (**mSPC4** (1.4-1.61% H_2O_2))

Hydrogen peroxide

Systemic effects – quantitative assessment

Not relevant.

Combined scenarios
Not relevant.

Local effects

Local effects – (semi-)quantitative assessment

Task/ Scenario	**Tier**	**Estimated inhalation exposure [mg/m³]**	**%AEC [AEC=1.25 mg/m³]**	**Estimated dermal exposure [%]**	**%NOAEC [NOAEC=35%]**	**Acceptable [yes/no]**
Scenario 1.2	1	0.0021 mg/m³	0.17%	1.61%	4.60%	yes
Scenario 2.1	1	Negligible dermal exposure. Inhalation exposure covered by 3.1				yes
Scenario 3.1	1	0.54 mg/m³	43.2%	1.61%	4.60%	yes

Task/ Scenario	Tier	Estimated inhalation exposure [mg/m³]	%AEC [AEC=1.25 mg/m³]	Estimated dermal exposure [%]	%NOAEC [NOAEC=35%]	Acceptable [yes/no]
Scenario 3.2	1	n.r.	n.r.	1.61%	4.60%	yes
Scenario 4.1	1	0.54 mg/m3	43.2%	n.r.	n.r.	yes

Conclusion on local effects - (semi-)quantitative assessment
All scenarios assessed lead to acceptable use in the Tier-1 assessment.

SoC 2-phenoxyethanol

Systemic effects – quantitative assessment

Task/ Scenario	Tier	AEL [mg/kg bw/d]	Estimated uptake [mg/kg bw/d]	Estimated uptake/AEL [%]	Acceptable [)yes/no]
Scenario 1.2 **SoC 2-PE**	1	2.5 mg/kg bw/d (oral)	1.18E-03 mg/kg bw/d	0.05%	yes
Scenario 2.1 **SoC 2-PE**	1	2.5 mg/kg bw/d (oral)	Negligible dermal exposure. Inhalation exposure covered by 3.1 (SoC)		yes
Scenario 3.1 **SoC 2-PE**	1	2.5 mg/kg bw/d (oral)	3.42E-02 mg/kg bw/d	1.37%	yes
Scenario 3.2 **SoC 2-PE**	1	7.5 mg/kg bw/d (dermal)	5.18E-04 mg/kg bw/d	0.01%	yes
Scenario 4.1 **SoC 2-PE**	1	2.5 mg/kg bw/d (oral)	1.39E-04 mg/kg bw/d	0.01%	yes

Combined scenarios

Scenarios combined	Tier	AEL [mg/kg bw/d]	Estimated uptake [mg/kg bw/d]	Estimated uptake/AEL [%]	Acceptable [yes/no]
Combined 1.2 + 3.1 + 3.2 **SoC 2-PE**	1	2.5 mg/kg bw/d (oral)	3.59E-02 mg/kg bw/d	1.44%	yes

Conclusion on systemic effects
Acceptable use can be demonstrated for all scenarios assessed.

Local effects

For the SoC 2-phenoxyethanol, only the inhalation route of exposure is relevant for local effects.

Local effects – (semi-)quantitative assessment

Task/ Scenario	Tier	Estimated inhalation exposure [mg/m³]	%AEC [AEC_{acute}= 1.93 mg/m³]	Estimated inhalation exposure [mg/m³]	%AEC [$AEC_{long-term}$=0.32 mg/m³]	Acceptable [yes/no]
Scenario 1.2 **SoC 2-PE**	1	7.80E-06 mg/m³	0.0004%	8 h-TWA: 1.22E-08 mg/m³	0.000004%	yes
Scenario 2.1 **SoC 2-PE**	1	Negligible dermal exposure. Inhalation exposure covered by 3.1 (SoC)				yes
Scenario 3.1 **SoC 2-PE**	1	2.20E-03 mg/m³	0.11%	8 h-TWA: 8.25E-04 mg/m³	0.26%	yes
Scenario 3.2 **SoC 2-PE**	1	n.r.	n.r.	n.r.	n.r.	yes
Scenario 4.1 **SoC 2-PE**	1	2.20E-03 mg/m³	0.11%	8 h-TWA: 8.25E-04 mg/m³	0.26%	yes

Conclusion on local effects - (semi-)quantitative assessment
All scenarios assessed lead to acceptable use in the Tier-1 assessment.

Setting 5: Health care applications - PT2 (**mSPC5** (1.5% H_2O_2); **mSPC7** (4.95-5.45% H_2O_2); **mSPC8** (1.0% H_2O_2); **mSPC9** (7.0-7.7% H_2O_2) and **mSPC11** (1.5% H_2O_2)).

Hydrogen peroxide

Systemic effects – quantitative assessment
Not relevant.

Combined scenarios
Not relevant.

Local effects

Local effects – (semi-)quantitative assessment

All scenarios have been addressed by field studies. Results are reported in the confidential Annex.

As discussed for setting 5:

- Estimated exposure towards hydrogen peroxide for intended uses of mSPC5 is well covered by [redacted] as all relevant parameters of the scenarios fall within the boundaries of these field studies and related experiments.
- Estimated exposure towards hydrogen peroxide for intended uses of mSPC7 is thus well covered by the [redacted] performed as all relevant parameters of the scenarios fall within the boundaries of this field study and related experiments.

Estimated exposure towards hydrogen peroxide for intended uses of mSPC8 is thus well covered by [redacted] as all relevant parameters of the scenarios fall within the boundaries of this field study and related experiments.

Estimated exposure towards hydrogen peroxide for intended uses of mSPC9 is thus well covered by [redacted] and [redacted] as all relevant parameters of the scenarios fall within the boundaries of these field studies and related experiments

Estimated exposure towards hydrogen peroxide for intended uses of mSPC11 is thus well covered by [redacted] as all relevant parameters of the scenario fall within the boundaries of this field study and related experiments.

Setting 6/7: Institutional applications - PT2/PT4 (**mSPC5** (1.5% H_2O_2); **mSPC7** (4.95-5.45% H_2O_2); **mSPC9** (7.0-7.7% H_2O_2) and **mSPC11** (1.5% H_2O_2))

Hydrogen peroxide

Systemic effects – quantitative assessment
Not relevant.

Combined scenarios
Not relevant.

Local effects

Local effects – (semi-)quantitative assessment

Task/ Scenario	Tier	Estimated inhalation exposure [mg/m³]	%AEC [AEC=1.25 mg/m³]	Estimated dermal exposure [%]	%NOAEC [NOAEC=35%]	Acceptable [yes/no]
Scenario 1.1, worst-case for soluble concen-trates	1	0.014 mg/m³	1.12%	5.45%	15.6%	yes

Task/ Scenario	Tier	Estimated inhalation exposure [mg/m³]	%AEC [AEC=1.25 mg/m³]	Estimated dermal exposure [%]	%NOAEC [NOAEC=35%]	Acceptable [yes/no]
Scenario 2.1	1	2.35 mg/m³	188%	0.818%	2.34%	Inhalation: no Dermal: yes
	2*	1.11 mg/m³	88.8%	0.818%	2.34%	yes
Scenario 3.1	1	2.35 mg/m³	188%	0.818%	2.34%	Inhalation: no Dermal: yes
	2*	1.11 mg/m³	88.8%	0.818%	2.34%	yes
Scenario 4.1	1	2.35 mg/m³	188%	n.r.	n.r.	Inhalation: no Dermal: yes
	2*	1.11 mg/m³	88.8%	n.r.	n.r.	yes

***** mass transfer rate refined using [redacted] and the ventilation rate refined from 2.5/h (worst-case for private kitchens) to 15/h for large canteens

Conclusion on local effects - (semi-)quantitative assessment
Scenario 1.1 leads to acceptable use in the Tier-1 assessment.
Scenarios 2.1, 3.1 and 4.1 lead to acceptable use in the Tier-2 assessment.

Setting 8: Hygienic hand wash - PT1 (**mSPC10** (1.4-1.61% H_2O_2))

Hydrogen peroxide

Systemic effects – quantitative assessment
Not relevant.

Combined scenarios
Not relevant.

Local effects

Local effects – (semi-)quantitative assessment

Task/ Scenario	Tier	Estimated inhalation exposure [mg/m³]	%AEC [AEC=1.25 mg/m³]	Estimated dermal exposure [%]	%NOAEC [NOAEC=35%]	Acceptable [yes/no]
Scenario 1.2, worst-case for RTU liquids	1	0.01 mg/m³	0.80%	1.61%	4.60%	yes
Scenario 2.1	1*	5.6 mg/m³	448%	1.61%	4.60%	Inhalation: no Dermal: yes
	2**	0.54 mg/m³	43.2%	1.61%	4.60%	yes
Scenario 3.1	1	Negligible exposure				
Scenario 4.1	1*	5.6 mg/m³	448%	n.r.	n.r.	Inhalation: no Dermal: yes
	2**	0.54 mg/m³	43.2%	n.r.	n.r.	yes

***** ConsExpo Web model "instantaneous release" for 10 applications by one operator in one room (worst-case)
** "Constant rate" model considering one application per room in line with HEAdhoc 9 (realistic case)

Conclusion on local effects - (semi-)quantitative assessment
Scenarios 1.2 and 3.1 lead to acceptable use in the Tier-1 assessment.
Scenarios 2.1 and 4.1 lead to acceptable use in the Tier-2 assessment which has been performed in line with HEAdhoc 9, i.e. using "constant rate" model and considering one application per room as a realistic case.

SoC 2-phenoxyethanol

Systemic effects – quantitative assessment

Task/ Scenario	Tier	AEL [mg/kg bw/d]	Estimated uptake [mg/kg bw/d]	Estimated uptake/AEL [%]	Acceptable [yes/no]
Scenario 1.2 **SoC 2-PE**	1	2.5 mg/kg bw/d (oral)	5.91E-02 mg/kg bw/d	2.36%	yes
Scenario 2.1 **SoC 2-PE**	1	2.5 mg/kg bw/d (oral)	0.143 mg/kg bw/d	5.72%	yes
	2	2.5 mg/kg bw/d (oral)	0.046 mg/kg bw/d	1.85%	yes
Scenario 3.1 **SoC 2-PE**	1	2.5 mg/kg bw/d (oral)	Negligible exposure, covered by M/L phase		yes
Scenario 4.1 **SoC 2-PE**	1	2.5 mg/kg bw/d (oral)	0.108 mg/kg bw/d	4.32%	yes
	2	2.5 mg/kg bw/d (oral)	0.011 mg/kg bw/d	0.44%	yes

Combined scenarios

Scenarios combined	Tier	AEL [mg/kg bw/d]	Estimated uptake [mg/kg bw/d]	Estimated uptake/AEL [%]	Acceptable [yes/no]
Combined 1.2 + 2.1 **SoC 2-PE**	1	2.5 mg/kg bw/d (oral)	2.02E-01 mg/kg bw/d	8.08%	yes
	2	2.5 mg/kg bw/d (oral)	1.05E-01 mg/kg bw/d	4.2%	yes

Conclusion on systemic effects

Acceptable use can be demonstrated for all scenarios assessed.

Local effects

For the SoC 2-phenoxyethanol, only the inhalation route of exposure is relevant for local effects.

Local effects – (semi-)quantitative assessment

Task/ Scenario	Tier	Estimated inhalation exposure [mg/m³]	%AEC [AEC_{acute}= 1.93 mg/m³]	Estimated inhalation exposure [mg/m³]	%AEC [$AEC_{long-term}$=0.32 mg/m³]	Acceptable [yes/no]
Scenario 1.2 **SoC 2-PE**	1	1.10E-05 mg/m³	0.0006%	8 h-TWA: 1.72E-08 mg/m³	0.000005%	yes
Scenario 2.1 **SoC 2-PE**	1*	3.1 mg/m³	160.6%	8 h-TWA: 0.065 mg/m³	20.2%	short term: no 8h-TWA:yes
	2**	0.3 mg/m³	15.5%	8 h-TWA: 0.0006 mg/m³	0.20%	yes
Scenario 3.1 **SoC 2-PE**	1	Negligible exposure, covered by M/L phase				yes
Scenario 4.1 **SoC 2-PE**	1*	3.1 mg/m³	160.6%	8 h-TWA: 0.065 mg/m³	20.2%	short term: no 8h-TWA:yes
	2**	0.3 mg/m³	15.5%	8 h-TWA: 0.0006 mg/m³	0.20%	yes

***** ConsExpo Web model "instantaneous release" for 10 applications by one operator in one room (worst-case)
** "Constant rate" model considering one application per room in line with HEAdhoc 9 (realistic case)

Conclusion on local effects - (semi-)quantitative assessment
All scenarios assessed lead to acceptable use in the Tier-1 or Tier-2 assessment.

Local effects – qualitative assessment

According to the Guidance on the Biocidal Products Regulation (Volume III Human Health, Version 4.0, December 2017), a qualitative local risk assessment needs to be performed in case the reference value for local effects such as the dermal NOAEC is exceeded, and/or products or in-use dilutions warrant classification with respect to local effects on skin, eyes or the respiratory tract either because of the presence of the active substance and/or the presence of substances of concern (SoCs) of band A and B.

For hydrogen peroxide, the skin irritation threshold of 35% (SCL according to CLP) can be considered the dermal NOAEC.

For products of **mSPC3** which contain 35.0-36.75% hydrogen peroxide, a local assessment is triggered by the exceedance of the dermal NOAEC and due to the classification. No SoCs of band A or B are present.

For products of **mSPC1**, **mSPC6** and **mSPC12** which contain hydrogen peroxide at concentrations far below the dermal NOAEC, a local assessment is triggered by the classification. No SoCs of band A or B are present.

For products of **mSPC4**, **mSPC7**, **mSPC9** and **mSPC10** which contain hydrogen peroxide at concentrations far below the dermal NOAEC, a local assessment is triggered by the classification and the presence of SoCs of band A or B.

For products of **mSPC2**, **mSPC5**, **mSPC8** and **mSPC11** no local assessment is triggered as they contain hydrogen peroxide at concentrations far below the dermal NOAEC and are not classified with respect to local effects. No SoCs of band A or B are present.

Relevant information for the qualitative local assessment is summarised in the table below.

Summary of information for local qualitative assessment

mSPC	% H_2O_2	C&L*	SoC of band A or B**
mSPC1	6.0-6.6%	H319	no SoC
mSPC2 and mSPC8	1.0%	none	no SoC
mSPC3	35.0-36.75%	H302 H315 H318 H335 (H412)	no SoC
mSPC4 and mSPC10	1.4-1.61%	(H290) H319	Band A: Sodium lauryl sulfate (max. conc. 3.88%) Band A: Sodium caprylolglutamate (max. conc. 2.00%) Band A: Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts (compound of Texapon ALS, max. conc. 1.12%) *Band C: Citric acid monohydrate (max. conc. 0.9%)* *Band C: 2-Phenoxyethanol (max. conc. 0.9%)*
mSPC5 and mSPC11	1.5%	none	no SoC
mSPC6 and mSPC12	2.0-2.3%	(H226) H318	*Band C: n-Propanol (max. conc. 17.5%)*
mSPC7	4.95-5.45%	H314 (Cat. 1) H318	Band B: Mixture of alkyl ether carboxylic acid (max. conc. 3.65%)
mSPC9	7.0-7.7%	(H290) H314 (Cat. 1B) H318	Band B: Alcohol EO phosphate ester (max. conc. 14.625%) Band B: Alkyl polyglucoside (max. conc. 6.35%) Band B: Alcohols, C10-C16 ethoxylated propoxylated (compound of Dehydol 980, max. conc. 3%) Band B: Phosphoric acid (max. conc. 1.5%)

			Band B: Nitric acid (max. conc. 3.71%)

* Classification related to physicochemical properties or environmental hazards is mentioned for the sake of completeness and put in brackets.

** SoC of band C are mentioned for the sake of completeness, these have been assessed quantitatively, thus are not relevant for the qualitative assessment.

For the local qualitative assessment, as the RMMS apply, irrespective of the setting, the tables below are presented by meta number and then setting

mSPC1

- setting 1: Life sciences cleanroom - PT2 (Uses 1.1 – 1.4)

Qualitative local risk assessment for the professional user

Hazard		Exposure							Risk	
Hazard category	**Effects in terms of C&L**	**PT**	**Who is exposed?**	**Tasks, uses, processes**	**Potential exposure route**	**Frequency and duration of potential exposure**	**Potential degree of exposure**	**Relevant RMM & PPE***	**Conclusion on risk**	**Uncertainties attached to conclusion may increase (↑) or decrease (↓) risk or both (↑↓)**
Low	**mSPC1** Eye Irrit. 2; H319	PT2	Prof. user	Controlled exposure Uses 1.1 – 1.4 **M/L phase (Scenario 1.2)** **Application phase (Scenarios 2.1 and 2.2)** **Post-application phase**	Eye (splashes, hand to eye transfer)	More than few minutes but equal to or less than few hours per day	6.0-6.6% hydrogen peroxide no SoCs	**RMM** **<u>Product characteristics</u>** Labelling according to CLP; clear use description; technical data sheets provided along with product **<u>Personal RMMs</u>** Trained professionals; avoidance of contact with contaminated tools and objects;	**Acceptable** + Experience expected + Reversible effects + Trained professionals + Professionals following instructions for use + Professionals observing RMMs where required + Professionals using PPE	Frequency of use may be higher than recommended (↑) Instructions for use and adherence to it, may vary (↑↓)

				(Scenarios 3.1 and 3.2)				regular cleaning of equipment and work area; good standard of personal hygiene **<u>Technical and organisational RMMs</u>** Training for staff on good practice; very high standard of ventilation; minimisation of splashes and spills; management and supervision in place to check that the RMMs in place are being used correctly and organisational controls followed **PPE** **<u>Eye protection</u>** Eye protection must be chosen based on level of activity and	where required + Very high standard of ventilation	

								exposure (see RMMs per use).		

* The Guidance on the Biocidal Product Regulation, Volume III Human Health – Assessment & Evaluation (Parts B+C), version 4.0, December 2017, clarifies on p. 259 footnote 32 that "if duration of potential exposure is less than few minutes per day – no RMM and PPE are necessary".

mSPC2 and mSPC8

- setting 2: Industry - PT2 (Uses 2.1 – 2.2; Use 8.1)
- setting 3: Food and beverage industry - PT4 Uses 2.3-2.4; Use 8.2)
- setting 5: Health care applications - PT2 (Use 8.3)

Not relevant. Products of mSPC2 and mSPC8 contain hydrogen peroxide at 1.0%, are not classified and do not contain any SoCs.

mSPC3

- setting 3: Food and beverage industry - PT4 (Uses 3.1 - 3.2)

Qualitative local risk assessment for the professional user

Hazard		Exposure							Risk	
Hazard category	**Effects in terms of C&L**	**PT**	**Who is exposed?**	**Tasks, uses, processes**	**Potential exposure route**	**Frequency and duration of potential exposure**	**Potential degree of exposure**	**Relevant RMM & PPE***	**Conclusion on risk**	**Uncertainties attached to conclusion may increase (↑) or decrease (↓) risk or both (↑↓)**
Low to high	**mSPC3** Acute (oral) Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 (H412)	PT4	Prof. user	Controlled exposure Uses 3.1; scenario I and use 3.2; scenario II **M/L phase (Scenario 1.3)** **Application phase (Scenarios 2.2 and 2.3)**	Skin Eye RT (splashes, hand to eye transfer)	More than few minutes but equal to or less than few hours per day	35.0-36.75% hydrogen peroxide no SoCs	**RMM** **<u>Product characteristics</u>** Labelling according to CLP; clear use description; technical data sheets provided along with product **<u>Personal RMMs</u>** Trained professionals; avoidance of contact with contaminated tools and objects;	**Acceptable** + Experience expected + Trained professionals + Professionals following instructions for use + Professionals observing RMMs where required + Professionals using PPE where required	Frequency of use may be higher than recommended (↑) Instructions for use and adherence to it, may vary (↑↓)

				Post-application phase (Scenarios 3.2 and 3.3)				regular cleaning of equipment and work area; good standard of personal hygiene **<u>Technical and organisational RMMs</u>** Training for staff on good practice; high standard of ventilation; mini-misation of splashes and spills; management and supervision in place to check that the RMMs in place are being used correctly and organisational controls followed **PPE** **<u>Hand protection</u>** Suitable chemical resistant safety gloves. **<u>Eye protection</u>** Safety goggles.	+ High standard of ventilation	

								PPE must be chosen based on level of activity and exposure (see RMMs per use).		

* The Guidance on the Biocidal Product Regulation, Volume III Human Health – Assessment & Evaluation (Parts B+C), version 4.0, December 2017, clarifies on p. 259 footnote 32 that "if duration of potential exposure is less than few minutes per day – no RMM and PPE are necessary".

mSPC4 and mSPC10

- Setting 4: Teat disinfection - PT3 (Use 4.1)
- Setting 8: Hygienic hand wash - PT1 (Use 10.1)

Qualitative local risk assessment for the professional user

Hazard		Exposure							Risk	
Hazard category	**Effects in terms of C&L**	**PT**	**Who is exposed?**	**Tasks, uses, processes**	**Potential exposure route**	**Frequency and duration of potential exposure**	**Potential degree of exposure**	**Relevant RMM & PPE***	**Conclusion on risk**	**Uncertainties attached to conclusion may increase (↑) or decrease (↓) risk or both (↑↓)**
Low	**mSPC4 mSPC10** Eye Irrit. 2; H319 (H290)	PT3 PT1	Prof. user	Use 4.1; scenario I and Use 10.1, scenario I **Use 4.1 M/L phase (Scenario 1.2)** **Application phase (Scenario 2.1)**	Eye (splashes, hand to eye transfer)	More than few minutes but equal to or less than few hours per day	1.4-1.61% hydrogen peroxide Band A: Sodium lauryl sulfate (max. conc. 3.88%) Band A: Sodium caprylolglutamate (max. conc. 2.00%) Band A: Sulfuric acid, mono-C12-14-alkyl esters, ammonium salts	**RMM** **<u>Product characteristics</u>** Labelling according to CLP; clear use description; technical data sheets provided along with product **<u>Personal RMMs</u>** Trained professionals; avoidance of	**Acceptable** + Experience expected + Reversible effects + Trained professionals + Professionals following instructions for use + Professionals observing RMMs where required + Professionals using PPE	Frequency of use may be higher than recommended (↑) Instructions for use and adherence to it, may vary (↑↓)

				Post-application phase (Scenarios 3.1 – 3.2) **Use 10.1 M/L phase (Scenario 1.2)** **Application phase (Scenario 2.1)** **Post-application phase (Scenario 3.1)**			(compound of Texapon ALS, max. conc. 1.12%)	contact with contaminated tools and objects; regular cleaning of equipment and work area; good standard of personal hygiene **<u>Technical and organisational RMMs</u>** Training for staff on good practice; good standard of ventilation; minimisation of splashes and spills **PPE** **<u>Eye protection</u>** Eye protection must be chosen based on level of activity and exposure (see RMMs per use).	where required + Good standard of ventilation	

* The Guidance on the Biocidal Product Regulation, Volume III Human Health – Assessment & Evaluation (Parts B+C), version 4.0, December 2017, clarifies on p. 259 footnote 32 that "if duration of potential exposure is less than few minutes per day – no RMM and PPE are necessary".

mSPC5 and mSPC11

- setting 1: Life sciences cleanroom - PT2 (Uses 5.1 – 5.2; Uses 11.1 – 11.2)
- setting 5: Health care applications - PT2 (Uses 5.3 – 5.9; Use 11.3)
- setting 6/7: Institutional applications - PT2/PT4 (Uses 5.10 – 5.11; Uses 11.4 – 11.5)

Not relevant. Products of mSPC5 and mSPC11 contain hydrogen peroxide at 1.5%, are not classified and do not contain any SoCs.

mSPC6 and mSPC12

- setting 2: Industry - PT2 (Uses 6.1 and 12.1)
- setting 3: Food and beverage industry - PT4 (Uses 6.2 and 12.2)

Qualitative local risk assessment for the professional user

Hazard		Exposure							Risk	
Hazard category	**Effects in terms of C&L**	**PT**	**Who is exposed?**	**Tasks, uses, processes**	**Potential exposure route**	**Frequency and duration of potential exposure**	**Potential degree of exposure**	**Relevant RMM & PPE***	**Conclusion on risk**	**Uncertainties attached to conclusion may increase (↑) or decrease (↓) risk or both (↑↓)**
High	**mSPC6 mSPC12** Eye Dam. 1; H318 (H226)	PT2 PT4	Prof. user	Controlled exposure Uses 6.1; scenario I; Use 6.2; scenario I and II; use 12.1; scenario I - 12.2; scenario I and II **Uses 6.1 and 12.1 M/L phase**	Eye (splashes, hand to eye transfer)	More than few minutes but equal to or less than few hours per day	2.0-2.3% hydrogen peroxide 17.5% n-propanol (band B and C) no other SoCs of band A or B	**RMM** **<u>Product characteristics</u>** Labelling according to CLP; clear use description; technical data sheets provided along with product **<u>Personal RMMs</u>** Trained professionals; avoidance of contact with	**Acceptable** + Experience expected + Trained professionals + Professionals following instructions for use + Professionals observing RMMs where required + Professionals using PPE where required	Frequency of use may be higher than recommended (↑) Instructions for use and adherence to it, may vary (↑↓)

				(Scenario 1.2) **Application phase (Scenario 2.1)** **Post-application phase (Scenario 3.1)** **Uses 6.2 and 12.2 M/L phase (Scenario 1.2 for nPA)** **Application phase (Scenario 2.4 for nPA)** **Post-application phase (Scenario 3.4 for nPA)**				contaminated tools and objects; regular cleaning of equipment and work area; good standard of personal hygiene **<u>Technical and organisational RMMs</u>** Training for staff on good practice; minimisation of splashes and spills; management and supervision in place to check that the RMMs in place are being used correctly and organisational controls followed **PPE** **<u>Eye protection</u>** Eye protection must be chosen based on level of activity and exposure (see RMMs per use).		

* The Guidance on the Biocidal Product Regulation, Volume III Human Health – Assessment & Evaluation (Parts B+C), version 4.0, December 2017, clarifies on p. 259 footnote 32 that "if duration of potential exposure is less than few minutes per day – no RMM and PPE are necessary".

mSPC7

- setting 5: Health care applications - PT2 (Use 7.1)
- setting 6/7: Institutional applications - PT2/PT4 (Uses 7.2 – 7.5)

Qualitative local risk assessment for the professional user

Hazard		Exposure							Risk	
Hazard category	**Effects in terms of C&L**	**PT**	**Who is exposed?**	**Tasks, uses, processes**	**Potential exposure route**	**Frequency and duration of potential exposure**	**Potential degree of exposure**	**Relevant RMM & PPE***	**Conclusion on risk**	**Uncertainties attached to conclusion may increase (↑) or decrease (↓) risk or both (↑↓)**
High	**mSPC7** Skin Corr. 1; H314 Eye Dam. 1; H318	PT2 PT4	Prof. user	Controlled exposure Use 7.1; Scenarios I and II Uses 7.2 – 7.5; Scenarios I – VI **Use 7.4 M/L phase (Scenario 1.1)**	Skin Eye RT (splashes, hand to eye transfer)	More than few minutes but equal to or less than few hours per day	4.95-5.45% hydrogen peroxide max. 0.818% hydrogen peroxide in-use Band B: Mixture of alkyl ether carboxylic acid (max.	**RMM** **<u>Product characteristics</u>** Labelling according to CLP; clear use description; technical data sheets provided along with product **<u>Personal RMMs</u>** Trained professionals; avoidance of contact with contaminated	**Acceptable** + Experience expected + Trained professionals + Professionals following instructions for use + Professionals observing RMMs where required + Professionals using PPE where required	Frequency of use may be higher than recommended (↑) Instructions for use and adherence to it, may vary (↑↓)

				Application phase (Scenario 2.1) **Post-application phase (Scenario 3.1)**			conc. 3.65%)	tools and objects; regular cleaning of equipment and work area; good standard of personal hygiene **<u>Technical and organisational RMMs</u>** Training for staff on good practice; minimisation of splashes and spills; management and supervision in place to check that the RMMs in place are being used correctly and organisational controls followed **PPE** **<u>Hand protection</u>** Suitable chemical resistant safety gloves. **<u>Eye protection</u>** Safety goggles.		

								PPE must be chosen based on level of activity and exposure (see RMMs per use). use).		

* The Guidance on the Biocidal Product Regulation, Volume III Human Health – Assessment & Evaluation (Parts B+C), version 4.0, December 2017, clarifies on p. 259 footnote 32 that "if duration of potential exposure is less than few minutes per day – no RMM and PPE are necessary".

mSPC9

- setting 5: Health care applications - PT2 (Uses 9.1 – 9.2)
- setting 6/7: Institutional applications - PT2/PT4 (Uses 9.3 – 9.7)

Qualitative local risk assessment for the professional user

Hazard		**Exposure**							**Risk**	
Hazard category	**Effects in terms of C&L**	**PT**	**Who is exposed?**	**Tasks, uses, processes**	**Potential exposure route**	**Frequency and duration of potential exposure**	**Potential degree of exposure**	**Relevant RMM & PPE***	**Conclusion on risk**	**Uncertainties attached to conclusion may increase (↑) or decrease (↓) risk or both (↑↓)**
High	**mSPC 9** Skin Corr. 1B; H314 Eye Dam. 1; H318 (H290)	PT 2 PT 4	Prof. user	Controlled exposure Uses 9.1 – 9.2; Scenarios I – IV Uses 9.3 – 9.7; Scenarios I - VIII **M/L phase**	Skin Eye RT (splashes, hand to eye transfer)	More than few minutes but equal to or less than few hours per day	7.0-7.7% hydrogen peroxide max. 0.385% hydrogen peroxide in-use Band B: Alcohol EO phosphate ester (max. conc. 14.625%) Band B: Alkyl polyglucoside (max. conc. 6.35%) Band B: Alcohols, C10-C16 ethoxylated	**RMM** **<u>Product characteristics</u>** Labelling according to CLP; clear use description; technical data sheets provided along with product **<u>Personal RMMs</u>**	**Acceptable** + Experience expected + Trained professionals + Professionals following instructions for use + Professionals observing RMMs where required + Professionals using PPE	Frequency of use may be higher than recommended (↑) Instructions for use and adherence to it, may vary (↑↓)

				Application phase **Post-application phase**			propoxylated(compound of Dehydol 980, max. conc. 3%) Band B: Phosphoric acid (max. conc. 1.5%) Band B: Nitric acid (max. conc. 3.71%)	Trained professionals; avoidance of contact with contaminated tools and objects; regular cleaning of equipment and work area; good standard of personal hygiene **<u>Technical and organisational RMMs</u>** Training for staff on good practice; mini-misation of splashes and spills; management and supervision in place to check that the RMMs in place are being used correctly and organisational	where required	

								controls followed **PPE** **<u>Hand protection</u>** Suitable chemical resistant safety gloves. **<u>Eye protection</u>** Safety goggles. PPE must be chosen based on level of activity and exposure (see RMMs per use).		

* The Guidance on the Biocidal Product Regulation, Volume III Human Health – Assessment & Evaluation (Parts B+C), version 4.0, December 2017, clarifies on p. 259 footnote 32 that "if duration of potential exposure is less than few minutes per day – no RMM and PPE are necessary".

Conclusion on local effects - qualitative assessment

Exposure towards the active substance hydrogen peroxide and the SoCs for the 12 mSPCs results in acceptable risk for the professional user. A detailed conclusion on the risk is provided in the respective columns of the tables above.

Summary of risk mitigation measures per use

As concluded in the different chapters above, all assessments – including (semi-)quantitative, quantitative and qualitative assessments for the active substance and substances of concern (SoCs) – are deemed acceptable.

The following tables summarise the intended uses assessed and conclude on the related set of risk mitigation measures. The overall conclusion is derived from the set of risk mitigation measures triggered by either the (semi-)quantitative, quantitative and/or qualitative local risk assessment including also the assessment of all relevant substances of concern.

Setting 1: Life sciences cleanroom - PT2

Summary of risk mitigation measures per use - Setting 1: Life sciences cleanroom - PT2						
Use # and name	**Relevant mSPC**	**Relevant scenarios**	**C&L H-statements**	**C&L P-statements (as proposed by the applicant)**	**Set of risk mitigation measures derived from (semi-)quantitative and qualitative assessment**	**Relevant product names**
Use # 1.1 – (PT2) Disinfection of life sciences cleanrooms by spraying using trigger sprayer and dry wipe	1	1.2 + 2.1 + 3.1 + 4.1	H319	P280: Wear eye protection/face protection.	N-72: The use of eye protection during handling of the product is mandatory.	Klercide Sporicidal Low Residue Peroxide Klerwipe Sporicidal Low Residue Peroxide ANIOS H2O2 6% IP STERILE
Use # 1.2 – (PT2) Disinfection of life sciences cleanrooms by mopping using flat mop and bucket	1	1.2 + 2.2 + 3.2 + 4.2			N-72: The use of eye protection during handling of the product is mandatory. N-73: Use of respiratory protective equipment (RPE) providing a protection factor of 10 is mandatory for professionals applying the product and for professional bystanders that are in the treated area. At least an air purifying respirator with helmet/hood/mask (TH1/TM1), or a half/full mask with combination filter gas/P2 is required (filter type	

					(code letter, colour) to be specified by the authorisation holder within the product information). For repeated application or re-entry into the room, the professional needs to observe the same set of risk mitigation measures (i.e. RPE10) as for the first application in the room.	
Use # 1.3 – (PT2) Disinfection of life sciences cleanrooms by wiping using impregnated RTU wipes	1	covered by use # 1.1			Avoid hand to eye transfer.	
Use # 1.4 – (PT2) Disinfection of life sciences cleanrooms by mopping impregnated RTU mop wipes	1	covered by use # 1.2			Avoid hand to eye transfer. N-73: Use of respiratory protective equipment (RPE) providing a protection factor of 10 is mandatory for professionals applying the product and for professional bystanders that are in the treated area. At least an air purifying respirator with helmet/hood/mask (TH1/TM1), or a half/full mask with combination filter gas/P2 is required (filter type (code letter, colour) to be specified by the authorisation holder within the product information). For repeated application or re-entry into the room, the professional needs to observe the same set of risk mitigation measures (i.e. RPE10) as for the first application in the room.	
Use # 5.1 – (PT2) Disinfection of life sciences cleanrooms by	5	covered by [redacted]	none	none	none	Klercide Sporicidal

spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)						Enhanced Peroxide
Use # 5.2 – (PT2) Disinfection of life sciences cleanrooms by mopping using flat mop and bucket (Meta-SPC 5 c)	5	covered by [redacted]			none	
Use # 11.1 – (PT2) Disinfection of life sciences cleanrooms by wiping using impregnated RTU wipes (Meta-SPC 11 c)	11	covered by [redacted]	none	none	none	Klerwipe Sporicidal Enhanced Peroxide
Use # 11.2 – (PT2) Disinfection of life sciences cleanrooms by mopping using impregnated RTU mop wipes (Meta-SPC 11 c)	11	covered by [redacted]			none	

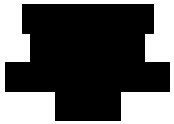
Setting 2: Industry - PT2

Summary of risk mitigation measures per use - Setting 2: Industry - PT2						
Use # and name	**Relevant mSPC**	**Relevant scenarios**	**C&L H-statements**	**C&L P-statements (as proposed by the applicant)**	**Set of risk mitigation measures derived from (semi-)quantitative and qualitative assessment**	**Relevant product names**
Use # 2.1 – (PT2) Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by spraying using trigger sprayer and dry wipe and/or by mopping using flat mop and bucket	2	covered by [redacted]	none	none	none	DrySan Oxy
Use # 2.2 – (PT2) Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by mopping using flat mop and bucket	2	covered by [redacted]			none	
Use # 6.1 – (PT2) Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by spraying using trigger sprayer	6	HP: covered by [redacted] SoC nPA: 1.2 + 2.1 + 3.1 + 4.1	H226 H318	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280: Wear eye protection/face protection. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately	N-72: The use of eye protection during handling of the product is mandatory.	OxyDes Rapid

				call a POISON CENTER/doctor.		
Use # 8.1 – (PT2) Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by wiping using impregnated RTU wipes	8	covered by use # 2.1 ([redacted])	none	none	none	DrySan Oxy Wipes
Use # 12.1 – (PT2) Disinfection of surfaces in industry (e.g. dining areas, bathrooms) by wiping using impregnated RTU wipes	12	covered by use # 6.1	H226 H318	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280: Wear eye protection/face protection. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER/doctor.	Avoid hand to eye transfer.	OxyDes Maxi Wipes

Setting 3: Food and beverage industry PT4

Summary of risk mitigation measures per use - Setting 3: Food and beverage industry PT4						
Use # and name	**Relevant mSPC**	**Relevant scenarios**	**C&L H-statements**	**C&L P-statements (as proposed by the applicant)**	**Set of risk mitigation measures derived from (semi-)quantitative and qualitative assessment**	**Relevant product names**
Use # 2.3 – (PT4) Disinfection of food contact surfaces in food and beverage industry by spraying using trigger sprayer and dry wipe	2	covered by [redacted]	none	none	Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.	DrySan Oxy
Use # 2.4 – (PT4) Disinfection of food contact surfaces in food and beverage industry by spraying using fixed installed sprayer	2	1.4 + 2.1 + 3.1 + 4.1 + 7.1			Application only after the working shift/overnight. During spraying application, no operator shall be present. To determine the appropriate re-entry time, workplace release measurements with suitable measurement equipment shall be performed upon implementation of the fixed installed spraying, at regular intervals (annual intervals recommended) and after any change in relevant boundary conditions. The national regulations for workplace measurements have to be followed. In case of unscheduled maintenance tasks during spraying application, use of respiratory protective equipment (RPE) providing a protection factor of 10 is mandatory. Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.	

Use # 3.1 – (PT4) Disinfection of food contact surfaces in food and beverage industry by automated dipping or spraying in closed system	3	1.3 + 2.2 + 3.2 + 4.2 + 7.2 	H302 H315 H318 H335	P261: Avoid breathing vapours/spray. P273: Avoid release to the environment. P280: Wear protective gloves/eye protection/face protection. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER/doctor	N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory. P261: Avoid breathing vapours/spray. The process of dilution has to be carried out using an automatic dosing system. During operation, ensure adequate ventilation along the machines (LEV) and in the industrial halls (technical ventilation). During manual maintenance tasks, ensure adequate ventilation inside the machine (LEV) before opening the doors of the aseptic area. 1. The product shall only be transferred in closed pipes after mixing and loading. Open product and waste water flows are not allowed. 2. Workplace release measurements with suitable measurement equipment shall be performed upon implementation of the aseptic packaging plant, at regular intervals (annual intervals recommended) and after any change in relevant boundary conditions. The national regulations for workplace measurements have to be followed. 3. In case of maintenance of the aseptic packaging plant (e.g. manual cleaning, technical incidents or repair) appropriate PPE (respiratory protective equipment, chemical protective gloves, chemical protective coverall, eye	Oxypak D Oxypak S Oxypak S10

					protection) is required. The type of RPE and the filter type (code letter, colour) are to be specified by the authorisation holder within the product information. Glove material to be specified by the authorisation holder within the product information.	
Use # 3.2 – (PT4) Disinfection of food contact surfaces in food and beverage industry by CIP	3	1.3 + 2.3 + 3.3 + 4.3 + 7.3			N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory. The process of dilution has to be carried out using an automatic dosing system. Keep food, feed or beverages away from treated surface until rinsed off.	
Use # 6.2 – (PT4) Disinfection of food contact surfaces in food and beverage industry by spraying using trigger sprayer	6	HP: covered by [redacted] SoC nPA: 1.2 + 2.4 + 3.4 + 4.4 + 7.4	H226 H318	"P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280: Wear eye protection/face protection. P305 + P351 + P338: IF IN EYES: Rinse	N-72: The use of eye protection during handling of the product is mandatory. Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.	OxyDes Rapid

				cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER/doctor."		
Use # 8.2 – (PT4) Disinfection of food contact surfaces in food and beverage industry by wiping using impregnated RTU wipes	8	covered by use # 2.3	none	none	Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.	DrySan Oxy Wipes
Use # 12.2 – (PT4) Disinfection of food contact surfaces in food and beverage industry by wiping using impregnated RTU wipes	12	covered by use # 6.2	H226 H318	"P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280: Wear eye protection/face protection. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if	Avoid hand to eye transfer. Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.	OxyDes Maxi Wipes

				present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER/doctor."		

Setting 4: Teat disinfection - PT3

Summary of risk mitigation measures per use - Setting 4: Teat disinfection - PT3						
Use # and name	**Relevant mSPC**	**Relevant scenarios**	**C&L H-statements**	**C&L P-statements (as proposed by the applicant)**	**Set of risk mitigation measures derived from (semi-)quantitative and qualitative assessment**	**Relevant product names**
Use # 4.1 – (PT3) Teat dips for pre-milking disinfection	4	1.2 + 2.1 + 3.1 + 3.2 + 4.1 + 6.1 + 8.1	H290 H319	P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313: If eye irritation persists: Get medical advice/attention.	Avoid splashes and spills. Avoid hand to eye transfer.	OxyFoam Plus Predip PLUS MEPA Foampro D

Setting 5: Health care applications - PT2

Summary of risk mitigation measures per use - Setting 5: Health care applications - PT2						
Use # and name	**Relevant mSPC**	**Relevant scenarios**	**C&L H-statements**	**C&L P-statements (as proposed by the applicant)**	**Set of risk mitigation measures derived from (semi-)quantitative and qualitative assessment**	**Relevant product names**
Use # 5.3 – (PT2) Disinfection of non-food contact surfaces in health care applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 b)	5	covered by [redacted] and	none	none	none	Incidin OxyFoam
Use # 5.4 – (PT2) Disinfection of non-food contact surfaces in health care applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)	5	covered by [redacted] and			none	Incidin OxyFoam S
Use # 5.5 – (PT2) Disinfection of non-food contact surfaces in health care applications by wiping using clean single use cloth/wipe and bucket (Meta-SPC 5 b)	5	covered by [redacted] and			none	Incidin OxyFoam
Use # 5.6 – (PT2) Disinfection of non-food contact surfaces in health care applications by wiping using clean single use cloth/wipe and bucket (Meta-SPC 5 c)	5	covered by [redacted] and			none	Incidin OxyFoam S
Use # 5.7 – (PT2) Disinfection of non-food contact surfaces in health care applications by mopping using mop and bucket (Meta-SPC 5 c)	5	covered by [redacted]			none	Incidin OxyFoam S

Use # 5.8 – (PT2) Disinfection of non-food contact surfaces in health care applications by mopping using mop and bucket (Meta-SPC 5 c)	5	covered by [redacted]			none	Incidin OxyFoam S
Use # 5.9 – (PT2) Disinfection of non-food contact surfaces in health care applications by spraying the surface and then wiping with a clean cloth/wipe or spraying liquid onto a wipe and then wipe the surface or by having the disinfectant in a bucket and wiping with a single use clean cloth/wipe and non-routine disinfection of larger surfaces by mopping using mop and bucket (Meta-SPC 5 c)	5	covered by [redacted]			none	Incidin OxyFoam S
Use # 7.1 – (PT2) Disinfection of non-food contact surfaces in health care applications by mopping using flat mop and bucket	7	covered by [redacted]	H314 (Cat. 1) H318	P260: Do not breathe vapours/spray. P280: Wear protective gloves/protective clothing/eye protection/face protection. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated CLOTHING. Rinse skin with water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if	N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory.	UltraSan Floor Incidin OxyConcentrate CidalSan Large Area

				present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER/doctor.		
Use # 8.3 – (PT2) Disinfection of non-food contact surfaces in health care applications by wiping using impregnated RTU wipes	8	covered by [redacted]	none	none	none	Incidin OxyWipe
Use # 9.1 – (PT2) Disinfection of non-food contact surfaces in health care applications by wiping using clean single use cloth/wipe and bucket	9	covered by [redacted]	H290 H314 (Cat. 1B) H318	P260: Do not breathe vapours/spray. P280: Wear protective gloves/protective clothing/eye protection/face protection. P303 + P361 + P353: IF ON	N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory.	Incidin OxyPro

Use # 9.2 – (PT2) Disinfection of non-food contact surfaces in health care applications by mopping using flat mop and bucket	9	covered by [redacted]		SKIN (or hair): Take off immediately all contaminated CLOTHING. Rinse skin with water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER/doctor.	N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory.	
Use # 11.3 – (PT2) Disinfection of non-food contact surfaces in health care applications by wiping using impregnated RTU wipes (Meta-SPC 11 d)	11	covered by [redacted]	none	none	none	Incidin OxyWipe S

Setting 6/7: Institutional applications - PT2/PT4

Setting 6/7: Institutional applications - PT2/PT4 (cont)

Summary of risk mitigation measures per use - Setting 6/7: Institutional applications - PT2/PT4						
Use # and name	**Relevant mSPC**	**Relevant scenarios**	**C&L H-**	**C&L P-statements**	**Set of risk mitigation measures**	**Relevant product names**

			statements	**(as proposed by the applicant)**	**derived from (semi-)quantitative and qualitative assessment**	
Use # 5.10 – (PT2) Disinfection of non-food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)	5	covered by [redacted]	none	none	none	KitchenPro Oxy Foam S
Use # 5.11 – (PT4) Disinfection of food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe (Meta-SPC 5 c)	5	covered by [redacted]			Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.	
Use # 7.2 – (PT2) Disinfection of non-food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe and/or by mopping using flat mop and bucket	7	covered by [redacted]	H314 (Cat. 1) H318	P260: Do not breathe vapours/spray. P280: Wear protective gloves/protective clothing/eye protection/face protection. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all	N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during	Incidin OxyConcentrate FF KitchenPro Oxy Des Super Concentrate

				contaminated CLOTHING. Rinse skin with water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER/doctor.	handling of the product is mandatory. P260: Do not breathe vapours/spray.	
Use # 7.3 – (PT2) Disinfection of non-food contact surfaces in institutional applications by mopping using flat mop and bucket	7	covered by [redacted]			N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory.	

Use # 7.4 – (PT2) Disinfection of non-food contact surfaces in institutional applications by spraying using wall mounted device	7	1.1 + 2.1 + 3.1 + 4.1			N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory. P260: Do not breathe vapours/spray. Ensure technical ventilation (at least 15 air exchanges/hour).	

Use # 7.5 – (PT4) Disinfection of food contact surfaces in institutional applications by spraying using trigger sprayer	7	covered by [redacted]			N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory. P260: Do not breathe vapours/spray. Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.	

Use # 9.3 – (PT2) Disinfection of non-food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe or by wiping using single-use cloth and bucket and/or floors by mopping using flat mop and bucket	9	covered by [redacted]	H290 H314 (Cat. 1B) H318	P260: Do not breathe vapours/spray. P280: Wear protective gloves/protective clothing/eye protection/face protection. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated CLOTHING. Rinse skin with water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310:	N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory. P260: Do not breathe vapours/spray.	KitchenPro Oxy Des Concentrate Oasis Pro Oxy Des Maxx Oxy Des 2
Use # 9.4 – (PT2) Disinfection of non-food contact surfaces in institutional applications by mopping using flat mop and bucket	9	covered by [redacted]			N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within	

				Immediately call a POISON CENTER/doctor.	the product information). N-72: The use of eye protection during handling of the product is mandatory. Ensure technical ventilation (at least 15 air exchanges/hour).	
Use # 9.5 – (PT2) Disinfection of non-food contact surfaces in institutional applications by spraying using wall mounted device	9	covered by [redacted]			N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory. P260: Do not	

					breathe vapours/spray. Ensure technical ventilation (at least 15 air exchanges/hour).	
Use # 9.6 – (PT4) Disinfection of food contact surfaces in institutional applications by spraying using trigger sprayer and dry wipe	9	covered by [redacted]			N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory. P260: Do not breathe vapours/spray. Keep food, feed or beverages away from	

					treated surface until dried. Do not use directly on or near food, feed or drinks.	
Use # 9.7 – (PT4) Disinfection of food contact surfaces in institutional applications by wiping using single-use cloth and bucket	9	covered by [redacted]			N-80: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information). N-72: The use of eye protection during handling of the product is mandatory. Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near	

					food, feed or drinks.	
Use # 11.4 – (PT2) Disinfection of non-food contact surfaces in institutional applications by wiping using impregnated RTU wipes (Meta-SPC 11 d)	11	covered by use # 5.10	none	none	none	KitchenPro Oxy Wipes S
Use # 11.5 – (PT4) Disinfection of food contact surfaces in institutional applications by wiping using impregnated RTU wipes (Meta-SPC 11 d)	11	covered by use # 5.11			Keep food, feed or beverages away from treated surface until dried. Do not use directly on or near food, feed or drinks.	

Setting 8: Hygienic hand wash - PT1

Summary of risk mitigation measures per use - Setting 8: Hygienic hand wash - PT1						
Use # and name	**Relevant mSPC**	**Relevant scenarios**	**C&L H-statements**	**C&L P-statements (as proposed by the applicant)**	**Set of risk mitigation measures derived from (semi-)quantitative and qualitative assessment**	**Relevant product names**
Use # 10.1 – (PT1) Hygienic hand wash	10	1.2 + 2.1 + 3.1 + 4.1	H290 H319	P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313: If eye irritation persists: Get medical advice/attention.	Avoid splashes and spills. Avoid hand to eye transfer.	Manosan Oxy

Risk for non-professional users

Not relevant

Risk for the general public

Concerning the secondary exposure, the field studies [redacted] have been used ([redacted] or [redacted]). These are considered to cover secondary exposure scenarios for the general public as the duration of the studies reflect the time when the general public may enter a treated area. [redacted]

Risk for consumers via residues in food

Risk for consumers via residues in food has been assessed for setting 3: Food and beverage industry - PT4 (scenarios 7.1, 7.2, 7.3 and 7.4 for hydrogen peroxide and scenario 7.4 for the SoC n-propanol). Scenario 7.4 for hydrogen peroxide is considered to also cover setting 7: Institutional application - PT4.

[redacted]

Livestock exposure and worst-case consumer exposure (WCCE) via residues in edible tissues and milk has been assessed for setting 4: Teat disinfection - PT3 (scenario 6.1 for hydrogen peroxide, SoC citric acid and SoC 2-phenoxyethanol). [redacted]

Taking all information together, it is finally concluded that risk for consumers via residues in food is of no concern for products pertaining to the *Hydrogen Peroxide Family 1*.

Risk characterisation from combined exposure to several active substances or substances of concern within a biocidal product

Not relevant.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Consequently, [redacted], risk characterisation from combined exposure to the active substance and the SoCs is not deemed relevant.

2.2.7 Risk assessment for animal health

Risk assessment for animal health is relevant for setting 4: Teat disinfection – PT3 in mSPC4 only.

[redacted]

[redacted]

[redacted]

[redacted]

Therefore, it is concluded that the intended teat disinfection use relevant for mSPC4 does not result in any animal health concerns.

2.2.8 Risk assessment for the environment

2.2.8.1 Effects assessment on the environment

Information relating to the ecotoxicity of the biocidal product which is sufficient to enable a decision to be made concerning the classification of the product is required

PNEC values:

A summary of the PNEC values agreed in the Assessment Report for hydrogen peroxide is presented in the following table. No new data are submitted.

PNEC	PNEC	Justification

	(from AR 2015)	
$PNEC_{STP}$	4.66 mg/L	Based on an EC50 of 466 mg/L and on an assessment factor (AF) of 100.
$PNEC_{aquatic, freshwater}$	0.0126 mg/L	Based on a NOEC of 0.63 mg/L for *Daphnia magna* and an AF of 50.*
$PNEC_{sediment, freshwater}$	-	No data for sediment dwelling and soil organisms is available and due to the intrinsic properties of hydrogen peroxide data is not considered necessary. Additionally, hydrogen peroxide does not partition from the water phase, therefore adsorption to sediment is negligible.
$PNEC_{terrestrial}$	0.0018 mg/kg	Equilibrium partitioning method.
Marine water**	-	Not applicable.
Marine water sediment**	-	Not applicable.
$PNEC_{secondary\ poisoning}$***	-	Birds and mammals are not anticipated to be directly exposed to hydrogen peroxide, thus a risk assessment for bird and mammals is not considered necessary.
Air	-	For the air compartment ecotoxicological data on animal species are not available and methods for determination of effects of chemicals on species arising from atmospheric contamination have not yet been fully developed. Therefore, the quantitative estimation of a $PNEC_{air}$ is not possible.
*LC50 values in the tests with fish range from 16.4 to 37.4 mg/L, the 48-h EC50 for invertebrates is 2.34mg/L and the EbC50 for the marine diatom *Skeletonema costatum* is 2.39 mg/L. The long-term NOEC value for the reproduction of *Daphnia magna* is 0.63 mg/L representing the lowest chronic NOEC for the aquatic invertebrates and the NOEC value for *S. costatum* was 1.69 mg/L. ** Not determined in Assessment Report and therefore only included for completeness. Based on the intended use it can be concluded that the risk to the marine environment is considered to be negligible. *** The Assessment Report states that 'The estimated logKow of hydrogen peroxide is -1.57 indicating a negligible potential for bioconcentration in biota. Therefore, accumulation of hydrogen peroxide in the food chain is not expected and the risk of secondary poisoning in aquatic and terrestrial predators is considered negligible.'		

Primary and secondary poisoning and bioaccumulation potential:

Primary poisoning is not relevant because the products are designed to be used indoors only, with limited quantities of active substance and limited frequency of use. As the products are not intended to be placed indiscriminately or broadcast in the environment and as the products will not be applied together with food attractant or in the form of granular baits; primary poisoning is unlikely.

The estimated log Kow of hydrogen peroxide is –1.57 indicating a negligible potential for bioconcentration in biota. Therefore, it is justified that accumulation of hydrogen peroxide in the food chain is not expected, and the risk of secondary poisoning in aquatic and terrestrial predators is negligible.

Information on classification:

In accordance with the Guidance on the BPR: Volume IV. Part A Chapter II: Requirements for Active Substances Version 1.1 November 2014 classification of the mixture has been

made according to the rules laid down in Regulation (EC) No 1272/2008 (CLP) as there are valid data available on each of the components in the mixture and synergistic effects between the components are not expected.

[redacted]. Please refer to the rationale provided under "Available toxicological data relating to non active substance(s) (i.e. substance(s) of concern)"in section 2.2.6.1. For detailed specification of hydrogen peroxide, organic impurities and a list of stabilisers see the Confidential A2 in the active substance approval.

Based on CLP Regulation Section 4.1.3.5.5.3 and Table 4.1.1 it is justified that the mixture does not require classification for Aquatic Acute toxicity.

When considering chronic exposure, based on CLP Regulation Section 4.1.3.5.5.4 and Table 4.1.2 the mixture does not require classification for Chronic Aquatic Toxicity.
[redacted].
A study using the formulated products is, therefore, not considered necessary or an appropriate use of animals.
In consideration that here is a study using the formulated products, it is justified that no use of animals is necessary.

Further Ecotoxicological studies

Data waiving	
Information requirement	-
Justification	[redacted]. No additional testing with the product is, therefore, considered necessary.

Effects on any other specific, non-target organisms (flora and fauna) believed to be at risk (ADS)

No data are available.

Data waiving	
Information requirement	-
Justification	This is not a core data requirement. The products are intended for use indoors there will be no direct exposure of the environment.

Supervised trials to assess risks to non-target organisms under field conditions

No data are available.

Data waiving	
Information requirement	-
Justification	The products are not in the form of a bait or granules and therefore this endpoint does not apply.

Studies on acceptance by ingestion of the biocidal product by any non-target organisms thought to be at risk

No data are available.

Data waiving	
Information requirement	-
Justification	The products are not in the form of a bait or granules and therefore this endpoint does not apply.

Secondary ecological effect e.g. when a large proportion of a specific habitat type is treated (ADS)

No data are available.

Data waiving	
Information requirement	-
Justification	The products are intended for use indoors therefore there will be no direct exposure of the environment.

Foreseeable routes of entry into the environment on the basis of the use envisaged

All products within the biocidal product family are intended for indoor use, therefore there will be no direct exposure of the environment. According to the ESDs for PT1, PT2 and PT4, emissions will occur to the STP *via* wastewater after wet washing of the treated areas, with subsequent exposure of surface water and agricultural land. According to the ESD for PT3, after teat dipping, emissions may occur *via* waste water to the STP or to slurry/manure, dependent on whether the cows are milked in the stable (emission to slurry) or in a milking parlour outside the stable (emission to waste water).

Further studies on fate and behaviour in the environment (ADS)

No data are available.

Data waiving	
Information requirement	-
Justification	No further studies are considered necessary to assess the fate and behaviour in the environment for the products. The exposure and risk assessment has demonstrated a safe use without further refinements necessary.

Leaching behaviour (ADS)

Data waiving	
Information requirement	-
Justification	A leaching test is not required for this type of product.

Testing for distribution and dissipation in soil (ADS)

Data waiving	
Information requirement	-
Justification	No further testing is considered necessary to determine the distribution and degradation characteristics of the product.

Testing for distribution and dissipation in water and sediment (ADS)

Data waiving	
Information requirement	-
Justification	No further testing is considered necessary to determine the distribution and degradation characteristics of the product.

Testing for distribution and dissipation in air (ADS)

Data waiving	
Information requirement	-
Justification	No further data are required.

If the biocidal product is to be sprayed near to surface waters then an overspray study may be required to assess risks to aquatic organisms or plants under field conditions (ADS)

Data waiving	
Information requirement	-
Justification	No further data are required.

If the biocidal product is to be sprayed outside or if potential for large scale formation of dust is given then data on overspray behaviour may be required to assess risks to bees and non-target arthropods under field conditions (ADS)

Data waiving	
Information requirement	-
Justification	The biocidal product will not be sprayed outside. Not relevant.

2.2.8.2 Exposure assessment

The Hydrogen Peroxide Family 1 is divided into 12 Meta groups, and are used as disinfectants in Product Types 1, 2, 3 and 4. An environmental exposure assessment for each Meta group is provided in the following sections. A summary of the maximum in-use concentrations, product types and emission scenarios relevant for environmental exposure for each Meta group within the family is provided below.

The rates used are protective of the current concentrations in the products, as the concentrations have been refined since the risk assessments were performed.

Meta SPC		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Description		RTU	RTU	RTU	RTU	RTU	RTU	Conc.	RTU wipes	Conc.	RTU	RTU wipes	RTU wipes
Max. in use conc. of H_2O_2 (% w/w)		6.6	1	36.75	1.61	1.5	2.3	1.09	1	0.385	1.61	1.50	2.3
Product type		2	2+4	4	3	2+4	2+4	2+4	2+4	2+4	1	2+4	2+4
No.	**Scenario**	**Assessed for Meta**											
1	PT1 - Professional use – disinfectants used for skin and hand application in hospitals, based on average consumption	-	-	-	-	-	-	-	-	-	✓	-	-
2	PT1 - Professional use – disinfectants used for skin and hand application in hospitals based on tonnes per annum	-	-	-	-	-	-	-	-	-	✓	-	-
3	PT2 - Disinfection in industrial areas based on application rate	*	✓	-	-	✓	✓	✓	✓	✓	-	✓	✓
4	PT2 - Disinfection in industrial areas based on annual tonnage applied	*	✓	-	-	✓	✓	✓	✓	✓	-	✓	✓
5	PT2 - Disinfection in industrial areas/sanitary use based on consumption per capita	*	✓	-	-	✓	✓	✓	✓	✓	-	✓	✓
6	PT2 - Sanitary use based on annual tonnage applied	*	✓	-	-	✓	✓	✓	✓	✓	-	✓	✓
7	PT2 - Medical sector disinfection of rooms, furniture and objects based on annual tonnage applied	*	✓	-	-	✓	-	✓	✓	✓	-	✓	-
8	PT3 - Veterinary hygiene: non-medicinal teat dip disinfection	-	-	-	✓	-	-	-	-	-	-	-	-
9	PT4 - Disinfection of entire plants in the food, drink and milk industries	-	-	✓	-	-	-	-	-	-	-	-	-
10	PT4 - Disinfection of milking parlours	-	-	✓	-	-	-	-	-	-	-	-	-
11	PT4 - Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by spraying/wiping	-	✓	-	-	✓	✓	✓	✓	✓	-	-	-
12	PT4 - Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by small scale, ready-to-use products	–	–	–	–	–	–	–	–	–	–	✓	✓

RTU – Ready-to-use / Conc. – Concentrate. The formulations are diluted before use.

- Scenario not relevant to meta group

*Products in Meta group 1 will not be rinsed and treated surfaces will not be subject to wet cleaning; consequently, emissions to the environment will be negligible and a quantitative exposure assessment has not been performed.

2.2.8.2.1 Meta Group 1

The Meta 1 family consists of three formulations, Klercide Sporicidal Low Residue, Klerwipe Sporicidal Low Residue and ANIOS, which comprise a maximum of 6.6% w/w of H_2O_2 in water. All formulations are for use in PT2 (for surface disinfection for non-food contact surfaces). Klercide Sporicidal Low Residue and ANIOS are ready to use (RTU) products that are applied by spraying/wiping or mopping, while Klerwipe Sporicidal Low Residue is applied by wiping or mopping. None of the Meta 1 formulations will be rinsed after use and there will be no wet washing of treated areas; consequently, there will be no exposure of an STP and subsequently no exposure to fresh-water, sediment, soil or groundwater. As such, no quantitative risk assessment has been performed for products in this Meta group.

2.2.8.2.2 Meta Group 2

Meta 2 consists of a single formulation, DrySanOxy, which comprises a maximum 1% w/w H_2O_2. The formulation is for use in PT2 and PT4 (hard surface disinfection for non-food and food contact surfaces, respectively) and is to be applied by spraying/wiping and/or mopping.

Since Meta 5 assesses the same uses as Meta 2 but at a higher active substance concentration (1.5% w/w H_2O_2) [redacted], it can be considered that the assessment for Meta 2 is covered in the assessment of Meta 5.

2.2.8.2.3 Meta Group 3

The Meta 3 group consists of three formulations, Oxypak D, Oxypak S and Oxypak S10, which comprise a maximum 36.75% w/w H_2O_2 in water. The formulations are for use in PT 4 (disinfection for food contact surfaces), which may be applied neat (in use concentration 36.75% w/w). The formulations may be applied in the food and beverage industry for disinfection of packaging (aseptic filling) by fully automated dipping or spraying (closed process) and for disinfection by CIP (closed process).

An assessment of the following emission scenarios, applicable for Meta 3, was performed in accordance with the ESD for PT4 (2011) and using ECHAs PT4 Excel Spreadsheets (v1.0, 05/02/2016):

- Scenario 9: Disinfection of entire plants in the food, drink and milk industries
- Scenario 10: Disinfection of milking parlours

General information

Assessed PT	PT4
Assessed scenarios	Scenario 9: Disinfection of entire plants in the food, drink and milk industries Scenario 10: Disinfection of milking parlours
ESD(s) used	JRC 2011, Emission Scenario Documents for Product Type 4: Disinfectants used in food and feed areas
Approach	All scenarios: Consumption based approach
Distribution in the environment	Calculated based on ESD JRC 2011, and EUSES 2.1.2
Groundwater simulation	No

Confidential Annexes	No
Life cycle steps assessed	Production: No Formulation: No Use: Yes Service life: No
Remarks	None

Emission estimation

Scenario 9: PT4 – Disinfection of entire plants in the food, drink and milk industries

The use of hydrogen peroxide for the disinfection of entire plants in the food, drink and milk industries was assessed according to the ESD for PT4. This is a generic scenario which assumes that every surface within the plant will be disinfected with the same substance. Emissions from the treated plant may occur to either an on-site or an off-site (municipal) STP, before discharge to surface water. As a conservative worst case, it is assumed that no elimination occurs in the on-site STP before release to surface water.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Amount active substance used in the local plant per year	$Q_{a.i}$	191	$kg.yr^{-1}$	P: PT4 ESD Table 6
Number of emission days per year	$T_{emission}$	231	$d.yr^{-1}$	D
Fraction released to wastewater	F_{water}	1	-	D
Fraction eliminated due to on-site pre-treatment of the plant waste water	F_{elim}	0	-	D
Fraction disintegrated during or after application (before release to the sewage system)	F_{dis}	0	-	D
Capacity of the on-site STP	$CAP_{STP\_on\text{-}site}$	112.7	$m^3.d^{-1}$	D
Capacity of the off-site STP	$CAP_{STP\_off\text{-}site}$	2000	$m^3.d^{-1}$	D
Dilution factor in surface water (on-site STP)	DIL	160	-	D
Output	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Concentration of active substance in the effluent of the on-site STP	$C_{effluent}$	4.59E-02	$mg.l^{-1}$	O
Concentration of active substance in the influent to the off-site STP	$C_{influent}$	4.13E-01	$mg.l^{-1}$	O
[1] S: data set; D: default; O: output; P: pick list				

Calculations for Scenario 9

$C_{effluent} = (Q_{ai}/T_{emission}) * 1000 * (1-F_{dis}) * (1-F_{elim}) * F_{water} / (CAP_{STP\_on\text{-}site} * DIL)$

$C_{influent} = (Q_{ai}/T_{emission}) * 1000 * (1-F_{dis}) * (1-F_{elim}) * F_{water} / CAP_{STP\_off-site}$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [mg/l]**	**Remarks**
Water	4.59E-02	$C_{effluent}$
Wastewater	4.13E-01	$C_{influent}$

Scenario 10: PT4 – Disinfection of milking parlours

Disinfection in milking parlours is performed by cleaning in place (CIP): the disinfectant is added to the circulating water and pumped through the equipment after each milking event. Emissions were calculated for the maximum in-use concentration of H_2O_2 (36.75% w/w) in the Meta 3 products. No disintegration of the active substance during disinfection or after application is assumed. Therefore, this scenario represents an extreme worst case for this formulation, as H_2O_2 degrades rapidly in contact with organic material, so would be largely consumed during the disinfection process.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
In-use concentration of active substance	Cform	422.63	$g.l^{-1}$	S
Amount of disinfectant used for cleaning of the milking installation	$Vform_{inst}$	130	$l.d^{-1}$	D
Amount of disinfectant used for cleaning of the milk storage tank	$Vform_{tank}$	45	$l.d^{-1}$	D
Fraction disintegrated during or after application (before release to the sewage system)	F_{dis}	0	-	D
Fraction released to wastewater	F_{water}	1	-	D
Output	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Quantity of active substance used	Q_{ai}	7.40E+04	$g.d^{-1}$	O
Local emission to waste water	$Elocal_{water}$	7.40E+01	$kg.d^{-1}$	O

[1] S: data set; D: default; O: output; P: pick list

*Calculated based the maximum in-use concentration of 36.75% w/w (= 367.5 g/kg) and relative density of the formulation of 1.15.

Calculations for Scenario 10

Q_{ai} = Cform * ($Vform_{inst}$ + $Vform_{tank}$)

$Elocal_{water}$ = Qai * (1-F_{dis}) * F_{water} /1000

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater	7.40E+01	$Elocal_{water}$

2.2.8.2.4 Meta Group 4

The Meta 4 family consists of three formulations, OxyFoam Plus, Predip PLUS and MEPA Foampro D, which contain a maximum of 1.61% w/w H_2O_2. All three formulations are ready-to-use products for use in PT3 (veterinary hygiene) as non-medicinal teat disinfectants; they are water-based foams which are applied manually via a foam cup, prior to milking.

The exposure assessment considers the PT3 use as a non-medicinal teat dip disinfectant based on the average consumption approach, considering the maximum in use concentration of H_2O_2 (1.61% w/w). Emission calculations were performed according to the PT3 ESD (2011) and taking into account amendments outlined in the TAB (v2.0, 2018).

General information

Assessed PT	PT3
Assessed scenarios	Scenario 8: Veterinary hygiene: non-medicinal teat dip disinfection
ESD(s) used	JRC 2011, Emission Scenario Document for Product Type 3: Veterinary hygiene biocidal products. ECHA 2018, Technical Agreements for Biocides Environment (ENV), version 2.0, August 2018.
Approach	Scenario 9: average consumption
Distribution in the environment	Calculated based on ESD JRC 2011 and EUSES 2.1.2
Groundwater simulation	No
Confidential Annexes	No
Life cycle steps assessed	Production: No Formulation: No Use: Yes Service life: No
Remarks	None

Emission estimation

Scenario 8: PT3 – Veterinary hygiene: non-medicinal teat dip disinfection

Calculation of the PT3 teat-dip emission estimation was performed for release to waste water and then to a STP, as well as for emission to slurry or manure and subsequent spreading on arable land or grassland. Releases to the STP ($Elocal_{water}$) and to soil in slurry or manure ($PIEC_{soil}$) are presented below.

The emission calculations considered the maximum active substance concentration in the product (1.61% w/w) for all products in the Meta group. The products are applied at a maximum application rate of 1 ml product per teat, or 4 ml per cow (4 teats treated per animal). For manual applications, 2 milking events are assumed per day, and teat disinfection may occur pre- or post-milking, resulting in a total of 4 application events (Napp-teat) per animal per day (as agreed in the TAB v2.0, ENV 64).

According to the PT3 ESD (2011), a milking herd consists of 100 animals which lactate for 300 days per year. In the TAB (v2.0, ENV 63) it is agreed that the number of milk producing animals per day ($N_{mp\text{-}animal}$) contributing to emissions to slurry/manure is 82.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Type of housing/manure storage (for application of the notification)	cat-subcat (i1)	'Dairy cows' i1 = 1	[-]	D (Appendix 1: Table 7, JRC 2011)
Type of biocide	bioctype (i2)	'Disinfectant' i2 = 1	[-]	D (Appendix 1: Table 7, JRC 2011)
Type of application	appway (i3)	'Dipping' i3 = 2	[-]	D (Appendix 1: Table 7, JRC 2011)
Relevant emission stream	stream (i4)	'Manure' (i4 = 1); 'Slurry' (i4 = 3); 'Waste water (wwater)' (i4 = 2)	[-]	P (Appendix 1: Table 7, JRC 2011)
Content of active ingredient in formulation (product)	Fbioc	16.905*	g/l	S
Amount of product prescribed to be used for one treatment (dipping of the four teats) of one animal	$Vprod_{i1,i2,i3}$	0.004	l	S Products applied at rate of 1 ml per teat.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Dilution factor (for preparation of the working solution from the formulation (product))	F_{dil}	1	[-]	S The dilution factor is 1 as the formulation is used as working solution.
Fraction of active ingredient released	(F_{stp} = F_{ww}) $F_{stp\ i1,i2,i3,i4}$	1 – F_{teat} = 0.5	[-]	D
	$F_{slurry/manure\_1,i2,i3,i4\ F)}$	1 – F_{teat} = 0.5	[-]	D
	F_{air}	0	[-]	D
	F_{teat}	0.5	[-]	D
Number of teat dipping events for one animal and one day (dipping of the four teats of one animal = one disinfectant application)	Napp-teat	4	[-]	D (TAB v2.0, ENV 64: for manual applications pre- and post-milking)
Number of days of lactation period (corresponds to number of emission days)	Nday-lact (= Temission)	300	[-]	D
Number of disinfectant applications in one year (equals number of disinfectant applications in one lactation period)	Napp-bioc	1200	[-]	O (TAB v2.0, ENV 64: Napp-bioc = Napp-teat x Nday-lact)
Interval between two disinfectant applications (dipping events)	Tbioc-int	0.25	d	O (TAB v2.0, ENV 64: Tbioc-int = 1/Napp-teat)
Number of manure applications for grassland	Nlapp-grass	4	[-]	D
Number of manure applications for arable land	Nlapp-arab	1	[-]	D
Manure storage time interval for grassland	Tgr-int	53**	d	D (Appendix 1: Table 12, JRC 2011)
Manure storage time interval for arable land	Tar-int	212***	d	D (Appendix 1: Table 12, JRC 2011)
Number of animals in housing for category/subcategory i1 =1	$Nanimal_{i1}$	100	[-]	D (Appendix 1: Table 8, JRC 2011)
Number of milk producing animals per day	Nmp_animal	82	[-]	D (TAB v2.0, ENV 63)

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Amount of phosphate per animal for category/subcategory i1 =1	$Qphosph_{i1}$	0.10466	kg/ animal/d	D (Appendix 1: Table 11, JRC 2011)
Amount of nitrogen per animal for category/subcategory i1 =1	$Qnitrog_{i1}$	0.33890	kg/ animal/d	D (Appendix 1: Table 11, JRC 2011)
Applying nitrogen emission standards:				
Nitrogen emission standard for one year on grassland	$Q_{N,grassland}$	170	kg/ha	D (Appendix 1: Table 13, JRC 2011)
Nitrogen emission standard for one year on arable land	$Q_{N,arable\_land}$	170	kg/ha	D (Appendix 1: Table 13, JRC 2011)
Mixing depth with soil, grassland	$DEPTH_{grassland}$	0.05	m	D
Mixing depth with soil, arable land	$DEPTH_{arable\_land}$	0.20	m	D
Density of wet bulk soil	$RHOsoil_{wet}$	1700	kg/m^3	D

[1] S: data set; D: default; O: output; P: pick list

* Calculated based on a product density of 1.05 g/ml and a H_2O_2 concentration of 1.61% w/w.

** As Tbioc-int < Tgr/ar-int, the 'Number of biocide applications during the storage period for application on grassland' (Napp-manure$_{gr}$) is 212 (calculated from Napp-manure$_{gr}$ = Tgr-int/Tbioc-int).

*** As Tbioc-int < Tgr/ar-int, the 'Number of biocide applications during storage the period for application on arable land' (Napp-manure$_{ar}$) is 848 (calculated from Napp-manure$_{ar}$ = Tar-int/Tbioc-int).

Calculations for Scenario 8

Soil exposure

If the nitrogen emission standard is applicable:

$Qai\text{-}prescri_{1,i2,i3} = 10^{-3} \bullet Fbioc \bullet Vprod_{i1,i2,i3} \bullet F_{dil} = 6.76E\text{-}05$ kg

$Qai_{slurry/manure\ i1,i2,i3,i4} = F_{slurry/manure\ i1,i2,i3,i4} \bullet Qai\text{-}prescr_{i1,i2,i3} \bullet Nmp\text{-}animal = 2.77E\text{-}03$ kg

Concentration of the active ingredient in soil based on the nitrogen emission standard for grassland:

$Napp\text{-}manure_{gr} = Tgr\text{-}int/Tbioc\text{-}int = 212$

Qai-grass$_{i1,i2,i3,i4}$ = Qai$_{slurry/manure\ i1,i2,i3,i4}$ • Napp-manure$_{gr}$ = 0.588 kg

Qnitrog-grass $_{i1,i4}$ = Nanimal$_{i1}$ • Qnitrog$_{i1}$ • Tgr-int = 1796.17 kg

PIECgrs- N$_{i1,i2,i3,i4}$ = (100 • Qai-grass$_{i1,i2,i3,i4}$ • Q$_{N,\ grassland}$) / (Qnitrog-grass$_{i1,i4}$ • Nlapp-grass • DEPTH$_{grassland}$ • RHOsoil$_{wet}$)

Concentration of the active ingredient in soil based on the nitrogen emission standard for arable land:

Napp-manure$_{ar}$ = Tar-int/Tbioc-int = 848

Qai-arab$_{i1,i2,i3,i4}$ = Qai $_{slurry/manure\ i1,i2,i3,i4}$ • Napp-manure$_{ar}$ = 2.35 kg

Qnitrog-arab$_{i1,i4}$ = Nanimal$_{i1}$ • Qnitrog$_{i1}$ • Tar-int = 7184.68 kg

PIECars- N$_{i1,i2,i3,i4}$ = (100 • Qai-arab$_{i1,i2,i3,i4}$ • QN, arable-land) / (Qnitrog-arab$_{i1,i4}$ • Nlapp-arab • DEPTH$_{arable-land}$ • RHOsoil$_{wet}$)

Output	Symbol	Value	Unit	Remarks[1]
Soil exposure For stream *i4* = 1 and 3				
Concentration of the biocide (active ingredient) in soil (mg.kg-1) in the case of an emission standard for nitrogen and land application on grassland	PIECgrs-$N_{i1,i2,i3,i4}$	1.64E-02	mg/kg$_{wwt}$	O
Concentration of the biocide (active ingredient) in soil (mg.kg-1) in the case of an emission standard for nitrogen and land application on arable land	PIECars-$N_{i1,i2,i3,i4}$	1.64E-02	mg/kg$_{wwt}$	O

STP

Qai-prescri$_{1,i2,i3}$ = 10^{-3} • Fbioc • Vprod$_{i1,i2,i3}$ • F$_{dil}$ = 6.76E-05 kg

Qai-stp$_{i1,i2,i3,i4}$ = F$_{stp\ i1,i2,i3,i4}$ • Qai-prescr$_{1,i2,i3}$ • Nanimal$_{i1}$ • Napp-teat • Temission / 365

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission (Elocal$_{compartment}$) [kg/d]**	**Remarks**
Wastewater (Standard STP)	1.11E-02	*Qai-stp$_{i1,i2,i3,i4}$*

2.2.8.2.5 Meta Group 5

The Meta 5 family consists of 4 ready-to-use formulations which contain a maximum of 1.5% w/w H_2O_2: Incidin OxyFoam, Incidin OxyFoam S, Klercide Sporicidal Enhanced Peroxide, KitchenPro Oxy Foam S. The formulations are for use in PT2 and PT4 (hard

surface disinfection for non-food and food contact surfaces, respectively) and are applied by spraying/wiping, wiping and/or mopping.
Assessment of the following emission scenarios, applicable to Meta 5, were performed in accordance with the ESDs for PT2 (2001 and 2011) and PT4 (2011) and using ECHAs PT2 and PT4 Excel Spreadsheets (v1.0, 05/02/2016):

- Scenario 3: PT2 – Disinfection of industrial areas based on application rate
- Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied
- Scenario 5: PT2 – Disinfection of industrial areas/sanitary use based on consumption per capita
- Scenario 6: PT2 – Sanitary use based on annual tonnage applied
- Scenario 7: PT2 – Medical Sector disinfection of rooms, furniture and objects based on annual tonnage applied
- Scenario 11: PT 4 – Disinfection large scale catering kitchens, canteens, slaughterhouses and butcheries by spraying and wiping

General information

Assessed PT	PT2	PT 4
Assessed scenarios	Scenario 3: Disinfection in industrial areas based on application rate Scenario 4: Disinfection in industrial areas based on annual tonnage applied Scenario 5: Disinfection in industrial areas / sanitary use based on consumption per capita Scenario 6: Sanitary use based on annual tonnage applied Scenario 7: Medical sector disinfection of rooms, furniture and objects based on annual tonnage applied	Scenario 11: Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by spraying and wiping
ESD(s) used	JRC 2011, Emission Scenario Documents for Product Type 2: Private and public health area disinfectants and other biocidal products. Van der Poel 2001, RIVM report 601 450 008. Emission Scenario Document for Product Type 2: Private and public health area disinfectants and other biocidal products (sanitary and medical sector).	JRC 2011, Emission Scenario Documents for Product Type 4: Disinfectants used in food and feed areas
Approach	Scenario 3: application rate Scenario 5: consumption per capita Scenarios 4, 6 and 7: annual tonnage applied	Scenarios 1: application rate
Distribution in the environment	Calculated based on ESD JRC 2011, ESD RIVM 2001 and EUSES 2.1.2	Calculated based on ESD JRC 2011, and EUSES 2.1.2
Groundwater simulation	No	No

Confidential Annexes	Yes	Yes
Life cycle steps assessed	Production: No Formulation: No Use: Yes Service life: No	Production: No Formulation: No Use: Yes Service life: No
Remarks	None	None

Emission estimation

Scenario 3: PT2 – Disinfection in industrial areas based on application rate

Products in Meta 5 are applied by spraying/wiping or wiping at a rate of 10 ml product/m^2 and/or mopping at a rate of 20 ml/m^2. Typically, disinfection takes place on a daily basis, but may occur more frequently. Therefore, to address the worst case in the exposure assessment, disinfection is assumed to take place 96 times per day. As the products are supplied as ready-to-use formulations, disinfection of hard surfaces in industrial areas will be limited to small-scale applications.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of biocidal product	Vform	0.020*	l/m²	S
Concentration of active substance in the product	Cform	15.15**	g/l	S
Surface area to be disinfected	$AREA_{surface}$	25	m^2	P TAB v2.0, ENV 46 - RTU (small-scale application)
Number of applications per day	Nappl	96	d^{-1}	S
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0***	[-]	D
Fraction released to wastewater	F_{water}	1	[-]	D

[1] *S: data set; D: default; P: pick list*

*Products in Meta 5 are applied at a rate of 20 ml/m^2 during mopping and 10 ml/m^2 for spray/wipe applications.

** Based on a H_2O_2 concentration of 1.5% w/w and a product density of 1.01 g/ml, the concentration of active substance in the product is 15.15 g/l.

*** This is a highly conservative step 1 assessment.

Calculations for Scenario 3

$Elocal_{water} = Vform \bullet Cform \bullet AREA_{surface} \bullet Nappl \bullet (1 - F_{dis}) \bullet F_{water} / 1000$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater	7.27E-01	Local release to waste water (without pre-treatment)

Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 5: PT2 – Disinfection in industrial areas / sanitary use based on consumption per capita

The 'Disinfection in industrial areas / sanitary use based on consumption per capita' scenario was modelled using the highest H_2O_2 concentration (1.5% w/w) in the products of the Meta 5 family, in order to yield the highest Elocal. Therefore, it can be considered that the following scenario addresses all products in the Meta group.

Input parameters for calculating the local emission				
Variable/parameter	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Number of inhabitants feeding one STP	Nlocal	10000	[-]	D
Fraction released to wastewater	$F_{4,water}$	1	[-]	D
Concentration of active substance in the product	Cform	0.01515*	kg/l	S
Consumption per capita: General purpose (tiles, floors, sinks)	$Vform_1$	0.005	$l.cap^{-1}.d^{-1}$	D
Consumption per capita: Lavatory	$Vform_2$	0.002	$l.cap^{-1}.d^{-1}$	D
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0**	[-]	D
Fraction released to wastewater	Fpenetr	0.5	[-]	D

[1] *S: data set; D: default; O: output; P: pick list*

* Based on a 1.5% w/w concentration of H_2O_2 and a product density of 1.01 g/ml, the concentration of active substance in the product is 0.01515 kg/l.

** This is a highly conservative step 1 assessment.

Calculations for Scenario 5

$$Elocal_{4,water} = Nlocal * (Vform_1 + Vform_2) * Cform * Fpenetr * (1-F_{dis}) * F_{4,water}$$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (Standard STP)	5.30E-01	$Elocal_{4,water}$

Scenario 6: PT2 – Sanitary use based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 7: PT2 – Medical sector disinfection of rooms, furniture and objects based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 11: PT4 – Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by spraying and wiping

Products in Meta 5 are applied by spraying/wiping or wiping at a rate of 10 ml product/m^2 and/or mopping at a rate of 20 ml/m^2. For the disinfection of surfaces on a large scale, products may be applied by large scale spraying devices. To estimate worst case emissions, large scale surface spraying combined with the highest recommended application rate (20 ml/m^2) has been assumed. Typically, disinfection takes place on a daily basis for large-scale applications.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of the active substance	$Q_{a.i,\ appl}$	0.303*	$g.m^{-2}$	S
Surface area disinfected in slaughterhouses and butcheries (large area)	$AREA_{surface,\ slaughterhouse}$	10000	m^2	D
Surface area disinfected in slaughterhouses and butcheries (small area)	$AREA_{surface,\ slaughterhouse}$	10	m^2	D TAB v2.0, ENV 67
Surface area disinfected in large scale catering kitchens and canteens (large area)	$AREA_{surface,kitchens}$	2000	m^2	D
Surface area disinfected in large scale catering kitchens and canteens (small area)	$AREA_{surface,kitchens}$	50	m^2	D TAB v2.0, ENV 67

Number of applications per day (large area)	N_{appl}	1	d^{-1}	D
Number of applications per day (small area)	N_{appl}	10	d^{-1}	D
Fraction disintegrated during or after application (before release to the sewage system)	F_{dis}	0	-	D
Fraction eliminated due to on-site pre-treatment of the plant waste water	F_{elim}	0	-	D
Fraction released to wastewater	F_{water}	1	-	D
Output	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Local release to wastewater from slaughterhouse (large area)	$Elocal_{water,slaughterhouse}$	3.03E+00	$kg.d^{-1}$	O
Local release to wastewater from slaughterhouse (small area)	$Elocal_{water,slaughterhouse}$	3.03E-02	$kg.d^{-1}$	O
Local release to wastewater from large scale catering kitchens (large area)	$Elocal_{water,kitchens}$	6.06E-01	$kg.d^{-1}$	O
Local release to wastewater from large scale catering kitchens (small area)	$Elocal_{water,kitchens}$	1.52E-01	$kg.d^{-1}$	O

[1] S: data set; D: default; O: output; P: pick list

*Based on a H_2O_2 concentration of 1.5% w/w and a product density of 1.01 g/ml, the concentration of active substance in the product is 15.15 g/l. Meta 5 products are applied at a maximum rate of 20 ml/m^2.

Calculations for Scenario 11

$Elocal_{water,slaugherhouse} = Q_{ai,appl} * AREA_{surface,slaugherhouse} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$

$Elocal_{water,kitchens} = Q_{ai,appl} * AREA_{surface,kitchens} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$

$Elocal_{waer,total} = Elocal_{water,slaughterhouse} + Elocal_{water,kitchens}$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (large area)	3.64E+00	$Elocal_{water,total}$
Wastewater (small area)	1.82E-01	$Elocal_{water,total}$

2.2.8.2.6 Meta Group 6

The Meta 6 family consists of a single ready-to-use formulation, OxyDes Rapid, which contains a maximum 2.3% w/w H_2O_2. OxyDes Rapid is for use in PT2 and PT4 (hard surface disinfection for non-food and food contact surfaces, respectively) and is applied by spraying/wiping.

Assessment of the following emission scenarios, applicable to Meta 6, were performed in accordance with the ESDs for PT2 (2001 and 2011) and PT4 (2011) and using ECHAs PT2 and PT4 Excel Spreadsheets (v1.0, 05/02/2016):

- Scenario 3: PT2 – Disinfection of industrial areas based on application rate
- Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied
- Scenario 5: PT2 – Disinfection of industrial areas/sanitary use based on consumption per capita
- Scenario 6: PT2 – Sanitary use based on annual tonnage applied
- Scenario 11: PT 4 – Disinfection large scale catering kitchens, canteens, slaughterhouses and butcheries by spraying and wiping

General information

Assessed PT	PT2	PT 4
Assessed scenarios	Scenario 3: Disinfection in industrial areas based on application rate Scenario 4: Disinfection in industrial areas based on annual tonnage applied Scenario 5: Disinfection in industrial areas / sanitary use based on consumption per capita Scenario 6: Sanitary use based on annual tonnage applied	Scenario 11: Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by spraying and wiping
ESD(s) used	JRC 2011, Emission Scenario Documents for Product Type 2: Private and public health area disinfectants and other biocidal products. Van der Poel 2001, RIVM report 601 450 008. Emission Scenario Document for Product Type 2: Private and public health area disinfectants and other biocidal products (sanitary and medical sector).	JRC 2011, Emission Scenario Documents for Product Type 4: Disinfectants used in food and feed areas
Approach	Scenario 3: application rate Scenario 5: consumption per capita Scenarios 4 and 6: annual tonnage applied	Scenarios 1: application rate
Distribution in the environment	Calculated based on ESD JRC 2011, ESD RIVM 2001 and EUSES 2.1.2	Calculated based on ESD JRC 2011, and EUSES 2.1.2
Groundwater simulation	No	No
Confidential Annexes	Yes	Yes
Life cycle steps assessed	Production: No Formulation: No Use: Yes Service life: No	Production: No Formulation: No Use: Yes Service life: No
Remarks	None	None

Emission estimation

Scenario 3: PT2 – Disinfection in industrial areas based on application rate

The product in Meta 6 is applied by spraying/wiping at a rate of 10 ml product/m^2. Typically, disinfection takes place on a daily basis, but may occur more frequently. Therefore, to address the worst case in the exposure assessment, disinfection is assumed to take place 96 times per day. As the products are supplied as ready-to-use formulations, disinfection of hard surfaces in industrial areas will be limited to small-scale applications.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of biocidal product	Vform	0.010*	l/m²	S
Concentration of active substance in the product	Cform	22.31**	g/l	S
Surface area to be disinfected	$AREA_{surface}$	25	m^2	P TAB v2.0, ENV 46 - RTU (small-scale application)
Number of applications per day	Nappl	96	d^{-1}	S
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0***	[-]	D
Fraction released to wastewater	F_{water}	1	[-]	D

[1] *S: data set; D: default; P: pick list*

*Products in Meta 6 are applied at a rate 10 ml/m^2.

** Based on a H_2O_2 concentration of 2.3% w/w and a product density of 0.97 g/ml, the concentration of active substance in the META 6 products is 22.31 g/l.

*** This is a highly conservative step 1 assessment.

Calculations for Scenario 3

$$Elocal_{water} = Vform \bullet Cform \bullet AREA_{surface} \bullet Nappl \bullet (1 - F_{dis}) \bullet F_{water} / 1000$$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater	5.35E-01	Local release to waste water (without pre-treatment)

Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 5: PT2 – Disinfection in industrial areas / sanitary use based on consumption per capita

The 'Disinfection in industrial areas / sanitary use based on consumption per capita' scenario was modelled using the highest H_2O_2 concentration (2.3% w/w) in the products of the Meta 6 family, in order to yield the highest Elocal. Therefore, it can be considered that the following scenario addresses all products in the Meta group.

Input parameters for calculating the local emission				
Variable/parameter	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Number of inhabitants feeding one STP	Nlocal	10000	[-]	D
Fraction released to wastewater	$F_{4,water}$	1	[-]	D
Concentration of active substance in the product	Cform	0.02231*	kg/l	S
Consumption per capita: General purpose (tiles, floors, sinks)	$Vform_1$	0.005	$l.cap^{-1}.d^{-1}$	D
Consumption per capita: Lavatory	$Vform_2$	0.002	$l.cap^{-1}.d^{-1}$	D
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0**	[-]	D
Fraction released to wastewater	Fpenetr	0.5	[-]	D

[1] S: data set; D: default; O: output; P: pick list

* Based on a H_2O_2 concentration of 2.3% w/w and a product density of 0.97 g/ml, the concentration of active substance in the META 6 products is 22.31 g/l.

** This is a highly conservative step 1 assessment.

Calculations for Scenario 5

$$\boldsymbol{Elocal_{4,water}} = Nlocal * (Vform_1 + Vform_2) * Cform * Fpenetr * (1-F_{dis}) * F_{4,water}$$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (Standard STP)	7.81E-01	$Elocal_{4,water}$

Scenario 6: PT2 – Sanitary use based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 11: PT4 – Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by small scale, ready-to-use products

The product in Meta 6 is applied by spraying/wiping at a rate of 10 ml product/m^2. For the disinfection of surfaces on a large scale, products may be applied by large scale spraying devices. To estimate worst case emissions, large scale surface spraying combined with the highest recommended application rate (10 ml/m^2) has been assumed. Typically, disinfection takes place on a daily basis for large-scale applications.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of the active substance	$Q_{a.i,\ appl}$	0.2231*	$g.m^{-2}$	S
Surface area disinfected in slaughterhouses and butcheries (large area)	$AREA_{surface,\ slaughterhouse}$	10000	m^2	D
Surface area disinfected in slaughterhouses and butcheries (small area)	$AREA_{surface,\ slaughterhouse}$	10	m^2	D TAB v2.0, ENV 67
Surface area disinfected in large scale catering kitchens and canteens (large area)	$AREA_{surface,kitchens}$	2000	m^2	D
Surface area disinfected in large scale catering kitchens and canteens (small area)	$AREA_{surface,kitchens}$	50	m^2	D TAB v2.0, ENV 67
Number of applications per day (large area)	N_{appl}	1	d^{-1}	D
Number of applications per day (small area)	N_{appl}	10	d^{-1}	D
Fraction disintegrated during or after application (before release to the sewage system)	F_{dis}	0	-	D
Fraction eliminated due to on-site pre-treatment of the plant waste water	F_{elim}	0	-	D
Fraction released to wastewater	F_{water}	1	-	D
Output	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Local release to wastewater from slaughterhouse (large area)	$Elocal_{water,slaughterhouse}$	2.23E+00	$kg.d^{-1}$	O
Local release to wastewater from slaughterhouse (small area)	$Elocal_{water,slaughterhouse}$	2.23E-02	$kg.d^{-1}$	O
Local release to wastewater from large scale catering kitchens (large area)	$Elocal_{water,kitchens}$	4.46E-01	$kg.d^{-1}$	O
Local release to wastewater from large scale catering kitchens (small area)	$Elocal_{water,kitchens}$	1.12E-01	$kg.d^{-1}$	O

[1] S: data set; D: default; O: output; P: pick list

* Based on a H_2O_2 concentration of 2.3% w/w and a product density of 0.97 g/ml, the concentration of active substance in the META 6 products is 22.31 g/l. Meta 6 products are applied at a maximum rate of 10 ml/m^2.

Calculations for Scenario 11

$Elocal_{water,slaugherhouse} = Q_{ai,appl} * AREA_{surface,slaugherhouse} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$

$Elocal_{water,kitchens} = Q_{ai,appl} * AREA_{surface,kitchens} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$

$Elocal_{waer,total} = Elocal_{water,slaughterhouse} + Elocal_{water,kitchens}$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (large area)	2.68E+00	$Elocal_{water,total}$
Wastewater (small area)	1.34E-01	$Elocal_{water,total}$

2.2.8.2.7 Meta Group 7

The Meta 7 family consists of five products which contain a maximum of 5.45 w/w H_2O_2: Incidin OxyConcentrate, UltraSan Floor, Incidin OxyConcentrate FF, KitchenPro Oxy Des Super Concentrate and CidalSan Large Area. The formulations are for use in PT2 and PT4 (hard surface disinfection for non-food and food contact surfaces, respectively) and are applied by spraying, spraying/wiping and/or mopping or by spraying wall mounted device at 7.5-15% dilutions (maximum in use concentration 0.82% w/w H_2O_2). Previously the maximum dilution in Meta 7 was 20%, therefore the calculations performed were based on the corresponding maximum in use concentration of 1.09% w/w H_2O_2. It is considered that these cover the new lower rate.

Assessment of the following emission scenarios, applicable to Meta 7, were performed in accordance with the ESDs for PT2 (2001 and 2011) and PT4 (2011) and using ECHAs PT2 and PT4 Excel Spreadsheets (v1.0, 05/02/2016):

- Scenario 3: PT2 – Disinfection of industrial areas based on application rate
- Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied
- Scenario 5: PT2 – Disinfection of industrial areas/sanitary use based on consumption per capita
- Scenario 6: PT2 – Sanitary use based on annual tonnage applied
- Scenario 7: PT2 – Medical Sector disinfection of rooms, furniture and objects based on annual tonnage applied
- Scenario 11: PT 4 – Disinfection large scale catering kitchens, canteens, slaughterhouses and butcheries by spraying and wiping

General information

Assessed PT	PT2	PT 4
Assessed scenarios	Scenario 3: Disinfection in industrial areas based on application rate Scenario 4: Disinfection in industrial areas based on annual tonnage applied Scenario 5: Disinfection in industrial areas / sanitary use based on consumption per capita Scenario 6: Sanitary use based on annual tonnage applied Scenario 7: Medical sector disinfection of rooms, furniture and objects based on annual tonnage applied	Scenario 11: Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by spraying and wiping
ESD(s) used	JRC 2011, Emission Scenario Documents for Product Type 2: Private and public health area disinfectants and other biocidal products. Van der Poel 2001, RIVM report 601 450 008. Emission Scenario Document for Product Type 2: Private and public health area disinfectants and other biocidal products (sanitary and medical sector).	JRC 2011, Emission Scenario Documents for Product Type 4: Disinfectants used in food and feed areas
Approach	Scenario 3: application rate Scenario 5: consumption per capita Scenarios 4, 6 and 7: annual tonnage applied	Scenarios 1: application rate
Distribution in the environment	Calculated based on ESD JRC 2011, ESD RIVM 2001 and EUSES 2.1.2	Calculated based on ESD JRC 2011, and EUSES 2.1.2
Groundwater simulation	No	No
Confidential Annexes	Yes	Yes
Life cycle steps assessed	Production: No Formulation: No Use: Yes Service life: No	Production: No Formulation: No Use: Yes Service life: No
Remarks	None	None

Emission estimation

Scenario 3: PT2 – Disinfection in industrial areas based on application rate

For small-scale applications, products in Meta 7 are applied by spraying or spraying/wiping at a rate of 10 ml/m^2 and/or mopping at a rate of 20 ml/m^2. For large-scale applications, products in Meta 7 are applied at a rate of 180 ml diluted solution/m^2 using a wall-mounted sprayer. Typically, large-scale disinfection will take place on a daily basis, whilst small-scale disinfection may occur more frequently (up to 10 times per day). However, due to

the higher application rates for the large-scale application, and the larger area that will be treated, daily disinfection of large-scale surfaces represents the worst-case emissions to wastewater.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of biocidal product (large area)	Vform	0.180	l/m²	S
Application rate of biocidal product (small area)	Vform	0.020**	l/m²	S
Concentration of active substance in the product	Cform	11.227*	g/l	S
Surface area to be disinfected (large area)	$AREA_{surface}$	1000	m^2	D
Surface area to be disinfected (small area)	$AREA_{surface}$	25	m^2	P TAB v2.0, ENV 46 - RTU (small-scale application)
Number of applications per day (large area)	Nappl	1	d^{-1}	S
Number of applications per day (small area)	Nappl	10	d^{-1}	S
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0***	[-]	D
Fraction released to wastewater	F_{water}	1	[-]	D

[1] S: data set; D: default; P: pick list

* Based on a maximum in-use concentration of 1.09% w/w H_2O_2 and a product density of 1.03 g/ml, the maximum in-use concentration is 11.227 g/l.

**Products in Meta 7 are applied at a rate of 20 ml/m^2 during mopping application.

*** This is a highly conservative step 1 assessment.

Calculations for Scenario 3

$Elocal_{water} = Vform \bullet Cform \bullet AREA_{surface} \bullet Nappl \bullet (1 - F_{dis}) \bullet F_{water} / 1000$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (large area)	2.02E+00	Local release to waste water (without pre-treatment)
Wastewater (small area)	5.61E-02	Local release to waste water (without pre-treatment)

Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 5: PT2 – Disinfection in industrial areas / sanitary use based on consumption per capita

The 'Disinfection in industrial areas / sanitary use based on consumption per capita' scenario was modelled using the highest in-use H_2O_2 concentration (1.09% w/w) in the products of the Meta 7 family, in order to yield the highest Elocal. Therefore, it can be considered that the following scenario addresses all products in the Meta group.

Input parameters for calculating the local emission				
Variable/parameter	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Number of inhabitants feeding one STP	Nlocal	10000	[-]	D
Fraction released to wastewater	$F_{4,water}$	1	[-]	D
Concentration of active substance in the product	Cform	0.01123*	kg/l	S
Consumption per capita: General purpose (tiles, floors, sinks)	$Vform_1$	0.005	$l.cap^{-1}.d^{-1}$	D
Consumption per capita: Lavatory	$Vform_2$	0.002	$l.cap^{-1}.d^{-1}$	D
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0**	[-]	D
Fraction released to wastewater	Fpenetr	0.5	[-]	D

[1] S: data set; D: default; O: output; P: pick list

** Based on an in-use H_2O_2 concentration of 1.06% w/w and a product density of 1.03 g/ml.

** This is a highly conservative step 1 assessment.

Calculations for Scenario 5

$$Elocal_{4,water} = Nlocal * (Vform_1 + Vform_2) * Cform * Fpenetr * (1-F_{dis}) * F_{4,water}$$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (Standard STP)	3.93E-01	$Elocal_{4,water}$

Scenario 6: PT2 – Sanitary use based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 7: PT2 – Medical sector disinfection of rooms, furniture and objects based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 11: PT4 – Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by spraying/wiping

For surface disinfection in kitchens, canteens, slaughterhouses and butcheries, the Meta 7 formulations are applied by spraying or spraying/wiping at a rate of 10 ml diluted solution/m^2 and/or mopping at a rate of 20 ml/m^2. Typically, large-scale disinfection will take place on a daily basis, whilst small-scale (10-50 m^2, as defined in the TAB v2.0, ENV 67) and localised, disinfection may occur more frequently (up to 10 times per day). Due to the larger area disinfected (2000-10000 m^2), the daily large-scale applications represent the worst-case emissions to wastewater.

Emissions were calculated for the maximum in-use concentration of H_2O_2 (1.09% w/w). No disintegration of the active substance during disinfection or elimination in on-site pre-treatment plants is assumed. Therefore, this scenario represents a worst case for this formulation, as H_2O_2 degrades rapidly in contact with organic material, so would be largely consumed during the disinfection process.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of the active substance	$Q_{a.i,\ appl}$	0.225	$g.m^{-2}$	S
Surface area disinfected in slaughterhouses and butcheries (large area)	$AREA_{surface,slaughterhouse}$	10000	m^2	D
Surface area disinfected in slaughterhouses and butcheries (small area)	$AREA_{surface,slaughterhouse}$	10	m^2	D TAB v2.0, ENV 67
Surface area disinfected in large scale catering kitchens and canteens (large area)	$AREA_{surface,kitchens}$	2000	m^2	D
Surface area disinfected in large scale catering kitchens and canteens (small area)	$AREA_{surface,kitchens}$	50	m^2	D TAB v2.0, ENV 67
Number of applications per day (large area)	N_{appl}	1	d^{-1}	D

Number of applications per day (small area)	N_{appl}	10	d^{-1}	D
Fraction disintegrated during or after application (before release to the sewage system)	F_{dis}	0	-	D
Fraction eliminated due to on-site pre-treatment of the plant waste water	F_{elim}	0	-	D
Fraction released to wastewater	F_{water}	1	-	D
Output	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Local release to wastewater from slaughterhouse (large area)	$Elocal_{water,slaughterhouse}$	2.25E+00	$kg.d^{-1}$	O
Local release to wastewater from slaughterhouse (small area)	$Elocal_{water,slaughterhouse}$	2.25E-02	$kg.d^{-1}$	O
Local release to wastewater from large scale catering kitchens (large area)	$Elocal_{water,kitchens}$	4.49E-01	$kg.d^{-1}$	O
Local release to wastewater from large scale catering kitchens (small area)	$Elocal_{water,kitchens}$	1.13E-01	$kg.d^{-1}$	O

[1] *S: data set; D: default; O: output; P: pick list*

*Calculated based on a solution application rate of 20 ml/m^2, the maximum in-use concentration of 1.09% w/w (= 10.9 g/kg) and relative density of the formulation of 1.03.

Calculations for Scenario 11

$Elocal_{water,slaugherhouse} = Q_{ai,appl} * AREA_{surface,slaugherhouse} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$

$Elocal_{water,kitchens} = Q_{ai,appl} * AREA_{surface,kitchens} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$

$Elocal_{waer,total} = Elocal_{water,slaughterhouse} + Elocal_{water,kitchens}$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (large area)	2.69E+00	$Elocal_{water,total}$
Wastewater (small area)	1.35E-01	$Elocal_{water,total}$

2.2.8.2.8. Meta Group 8

The Meta 8 family consists of 2 formulations which contain a maximum of 1% w/w H_2O_2: DrySan Oxy Wipes and Incidin OxyWipe. The formulations are for use in PT2 and PT4 (hard

surface disinfection for non-food and food contact surfaces, respectively) and are supplied as ready-to-use wipes.

Since Meta 11 assesses the same uses as Meta 8 but at a higher active substance concentration (1.5% w/w H_2O_2) [redacted], it can be considered that the assessment for Meta 8 is covered in the assessment of Meta 11.

2.2.8.2.9 Meta Group 9

The Meta 9 family consists of four formulations which contain a maximum of 7.7% H_2O_2: Incidin OxyPro, Oasis Pro Oxy Des, Maxx Oxy Des 2 and KitchenPro Oxy Des Concentrate. The formulations are for use in PT2 and PT4 (hard surface disinfection for non-food and food contact surfaces, respectively) and are applied by spraying/wiping, wiping and/or mopping at 1.5-5% dilutions (maximum in use concentration 0.385% w/w H_2O_2).

Assessment of the following emission scenarios, applicable to Meta 9, were performed in accordance with the ESDs for PT2 (2001 and 2011) and PT4 (2011) and using ECHAs PT2 and PT4 Excel Spreadsheets (v1.0, 05/02/2016):

- Scenario 3: PT2 – Disinfection of industrial areas based on application rate
- Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied
- Scenario 5: PT2 – Disinfection of industrial areas/sanitary use based on consumption per capita
- Scenario 6: PT2 – Sanitary use based on annual tonnage applied
- Scenario 7: PT2 – Medical Sector disinfection of rooms, furniture and objects based on annual tonnage applied
- Scenario 11: PT 4 – Disinfection large scale catering kitchens, canteens, slaughterhouses and butcheries by spraying and wiping

General information

Assessed PT	PT2	PT 4
Assessed scenarios	Scenario 3: Disinfection in industrial areas based on application rate Scenario 4: Disinfection in industrial areas based on annual tonnage applied Scenario 5: Disinfection in industrial areas / sanitary use based on consumption per capita Scenario 6: Sanitary use based on annual tonnage applied Scenario 7: Medical sector disinfection of rooms, furniture and objects based on annual tonnage applied	Scenario 11: Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by spraying and wiping
ESD(s) used	JRC 2011, Emission Scenario Documents for Product Type 2: Private and public health area disinfectants and other biocidal products. Van der Poel 2001, RIVM report 601 450 008. Emission Scenario Document for Product Type 2: Private and public health area disinfectants and other biocidal products (sanitary and medical sector).	JRC 2011, Emission Scenario Documents for Product Type 4: Disinfectants used in food and feed areas
Approach	Scenario 3: application rate Scenario 5: consumption per capita Scenarios 4, 6 and 7: annual tonnage applied	Scenarios 1: application rate
Distribution in the environment	Calculated based on ESD JRC 2011, ESD RIVM 2001 and EUSES 2.1.2	Calculated based on ESD JRC 2011, and EUSES 2.1.2
Groundwater simulation	No	No
Confidential Annexes	Yes	Yes
Life cycle steps assessed	Production: No Formulation: No Use: Yes Service life: No	Production: No Formulation: No Use: Yes Service life: No
Remarks	None	None

Emission estimation

Scenario 3: PT2 – Disinfection in industrial areas based on application rate

For small-scale applications, products in Meta 9 are applied by spraying/wiping or wiping at a rate of 10 ml/m^2 and/or mopping at a rate of 20 ml/m^2. For large-scale applications, products in Meta 9 are applied at a rate of 180 ml diluted solution/m^2 using a wall-mounted sprayer. Typically, large-scale disinfection will take place on a daily basis, whilst small-scale disinfection may occur more frequently (up to 10 times per day). However, due to

the higher application rates for the large-scale application, and the larger area that will be treated, daily disinfection of large-scale surfaces represents the worst-case emissions to wastewater.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of biocidal product (large area)	Vform	0.180	l/m²	S
Application rate of biocidal product (small area)	Vform	0.020*	l/m²	S
Concentration of active substance in the product	Cform	4.0425**	g/l	S
Surface area to be disinfected (large area)	$AREA_{surface}$	1000	m^2	D
Surface area to be disinfected (small area)	$AREA_{surface}$	25	m^2	P TAB v2.0, ENV 46 - RTU (small-scale application)
Number of applications per day (large area)	Nappl	1	d^{-1}	S
Number of applications per day (small area)	Nappl	10	d^{-1}	S
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0***	[-]	D
Fraction released to wastewater	F_{water}	1	[-]	D

[1] S: data set; D: default; P: pick list

*Products in Meta 9 are applied at a rate of 20 ml/m^2 during mopping application.

** Based on a maximum in-use concentration of 0.385% w/w H_2O_2 and a product density of 1.05 g/ml, the maximum in-use concentration is 4.0425 g/l.

*** This is a highly conservative step 1 assessment.

Calculations for Scenario 3

$Elocal_{water} = Vform \bullet Cform \bullet AREA_{surface} \bullet Nappl \bullet (1 - F_{dis}) \bullet F_{water} / 1000$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (large area)	7.28E-01	Local release to waste water (without pre-treatment)
Wastewater (small area)	2.02E-02	Local release to waste water (without pre-treatment)

Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 5: PT2 – Disinfection in industrial areas / sanitary use based on consumption per capita

The 'Disinfection in industrial areas / sanitary use based on consumption per capita' scenario was modelled using the highest in-use H_2O_2 concentration (0.385% w/w) in the products of the Meta 9 family, in order to yield the highest Elocal. Therefore, it can be considered that the following scenario addresses all products in the Meta group.

Input parameters for calculating the local emission				
Variable/parameter	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Number of inhabitants feeding one STP	Nlocal	10000	[-]	D
Fraction released to wastewater	$F_{4,water}$	1	[-]	D
Concentration of active substance in the product	Cform	0.004043 *	kg/l	S
Consumption per capita: General purpose (tiles, floors, sinks)	$Vform_1$	0.005	$l.cap^{-1}.d^{-1}$	D
Consumption per capita: Lavatory	$Vform_2$	0.002	$l.cap^{-1}.d^{-1}$	D
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0**	[-]	D
Fraction released to wastewater	Fpenetr	0.5	[-]	D

[1] *S: data set; D: default; O: output; P: pick list*

** Based on an in-use H_2O_2 concentration of 0.385% w/w and a product density of 1.05 g/ml.

** This is a highly conservative step 1 assessment.

Calculations for Scenario 5

$$\boldsymbol{Elocal_{4,water}} = Nlocal * (Vform_1 + Vform_2) * Cform * Fpenetr * (1-F_{dis}) * F_{4,water}$$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (Standard STP)	1.41E-01	$Elocal_{4,water}$

Scenario 6: PT2 – Sanitary use based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 7: PT2 – Medical sector disinfection of rooms, furniture and objects based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 11: PT4 – Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by spraying/wiping

For surface disinfection in kitchens, canteens, slaughterhouses and butcheries, the Meta 9 formulations are applied by spraying/wiping or wiping at a rate of 10 ml diluted solution/m^2 and/or mopping at a rate of 20 ml/m^2. Typically, large-scale disinfection will take place on a daily basis, whilst small-scale (10-50 m^2, as defined in the TAB v2.0, ENV 67) and localised, disinfection may occur more frequently (up to 10 times per day). Due to the larger area disinfected (2000-10000 m^2), the daily large-scale applications represent the worst-case emissions to wastewater.

Emissions were calculated for the maximum in-use concentration of H_2O_2 (0.385% w/w). No disintegration of the active substance during disinfection or elimination in on-site pre-treatment plants is assumed. Therefore, this scenario represents a worst case for this formulation, as H_2O_2 degrades rapidly in contact with organic material, so would be largely consumed during the disinfection process.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of the active substance	$Q_{a.i,\ appl}$	0.081*	$g.m^{-2}$	S
Surface area disinfected in slaughterhouses and butcheries (large area)	$AREA_{surface,slaughterhouse}$	10000	m^2	D
Surface area disinfected in slaughterhouses and butcheries (small area)	$AREA_{surface,slaughterhouse}$	10	m^2	D TAB v2.0, ENV 67
Surface area disinfected in large scale catering kitchens and canteens (large area)	$AREA_{surface,kitchens}$	2000	m^2	D
Surface area disinfected in large scale catering kitchens and canteens (small area)	$AREA_{surface,kitchens}$	50	m^2	D TAB v2.0, ENV 67
Number of applications per day (large area)	N_{appl}	1	d^{-1}	D

Number of applications per day (small area)	N_{appl}	10	d^{-1}	D
Fraction disintegrated during or after application (before release to the sewage system)	F_{dis}	0	-	D
Fraction eliminated due to on-site pre-treatment of the plant waste water	F_{elim}	0	-	D
Fraction released to wastewater	F_{water}	1	-	D
Output	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Local release to wastewater from slaughterhouse (large area)	$Elocal_{water,slaughterhouse}$	8.09E-01	$kg.d^{-1}$	O
Local release to wastewater from slaughterhouse (small area)	$Elocal_{water,slaughterhouse}$	8.09E-03	$kg.d^{-1}$	O
Local release to wastewater from large scale catering kitchens (large area)	$Elocal_{water,kitchens}$	1.62E-01	$kg.d^{-1}$	O
Local release to wastewater from large scale catering kitchens (small area)	$Elocal_{water,kitchens}$	4.05E-02	$kg.d^{-1}$	O

[1] *S: data set; D: default; O: output; P: pick list*

*Calculated based on a solution application rate of 20 ml/m^2, the maximum in-use concentration of 0.385% w/w (= 10.9 g/kg) and relative density of the formulation of 1.05.

Calculations for Scenario 11

$Elocal_{water,slaugherhouse} = Q_{ai,appl} * AREA_{surface,slaugherhouse} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$

$Elocal_{water,kitchens} = Q_{ai,appl} * AREA_{surface,kitchens} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$

$Elocal_{waer,total} = Elocal_{water,slaughterhouse} + Elocal_{water,kitchens}$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (large area)	9.70E-01	$Elocal_{water,total}$
Wastewater (small area)	4.86E-02	$Elocal_{water,total}$

2.2.8.2.10 Meta Group 10

Meta 10 consists of one product, Manosan Oxy, which contains a maximum of 1.61% w/w H_2O_2, for use in PT1 (human hygiene biocidal product) as ready-to-use, water-based antimicrobial hand soap.

This assessment considers the use of Manosan Oxy by professionals in hospitals for skin and hand application (considering the average consumption per bed approach, and a tonnage based approach). Calculations were performed in accordance with the ESD for PT1 (2004) and using ECHAs PT1 Excel Spreadsheet (v1.0, 05/02/2016).

General information

Assessed PT	PT1
Assessed scenarios	Scenario 1: Professional use – disinfectants used for skin and hand application in hospitals, based on average consumption Scenario 2: Professional use – disinfectants used for skin and hand application in hospitals, based on tonnes per annum
ESD(s) used	EUBEES 2004, Emission Scenario Supplement to the methodology for risk evaluation of biocides: Environmental Emission Scenarios for biocides used as human hygiene biocidal products (Product type 1).
Approach	Scenario 1: average consumption per bed Scenario 2: relevant tonnage in EU
Distribution in the environment	Calculated based on ESD EUBEES 2004 and EUSES 2.1.2
Groundwater simulation	No
Confidential Annexes	Yes (Scenario 2)
Life cycle steps assessed	Production: No Formulation: No Use: Yes Service life: No
Remarks	None

Emission estimation

Scenario 1: PT1 – Professional use – disinfectants used for skin and hand application in hospitals – based on a consumption approach

The 'Professional use – disinfectants used for skin and hand application in hospitals' scenario was modelled using the intended application rate (3 ml/application) and the highest number of applications anticipated per day (10 applications per day), in order to yield the highest Elocal.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Number of beds in model hospital	$Nbeds_{pres}$	400	[-]	D
Fraction released to wastewater	F_{water}	1	[-]	D

Hospital staff ("Nursing staff", "Surgical staff" or "Nursing and surgical staff")	Nursing and surgical staff	-	-	P
Type of application ("Hand wash with soaps and liquid soaps" or "Hand rubs")	Hand wash with soaps and liquid soaps	-	-	P
Number of hospital personal per present bed	$N_{FTE/pres\_bed}$	1.5	FTE/bed	D
Efficient dose rate of the hand disinfectant (volume)	Q_{form}	0.003*	l/event	S
Fraction of active substance in the hand disinfectant	F_{form}	0.0161	-	S
Density of the product	RHO_{form}	1.05**	kg/l	D
Number of disinfection events/FTE/day	N_{appl}	10	1/FTE.d	P
Output	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Consumption of active ingredient per present bed:				
Nursing staff	$Qsubstpres\_bed_{Nursing\ staff}$	7.61E-04	kg/b.d	O
Surgical staff	$Qsubstpres\_bed_{Surgical\ staff}$	7.61E-05	kg/b.d	O
Nursing and surgical staff	Qsubstpres_bed	8.37E-04	kg/b.d	O

[1] *S: data set; D: default; O: output; P: pick list*

* Manosan Oxy is applied at a rate of 3ml product per application.

** The Meta 10 products contain the active substance, H_2O_2, at a maximum concentration of 1.61% w/w with product relative density 1.02 – 1.05.

Calculations for Scenario 1

$Qsubstpres\_bed_{Nursing\ staff} = NFTE/pres\_bed * Qform * Fform * RHOform * Nappl$

$Qsubstpres\_bed_{Surgical\ staff} = NFTE/pres\_bed * 0.1 * Qform * Fform * RHOform * Nappl$

$Qsubstpres\_bed = Qsubstpres\_bed_{Nursing\ staff} + Qsubstpres\_bed_{Surgical\ staff}$

$Elocal_{water} = Nbeds_{pres} * Qsubst_{pres\_bed} * F_{water}$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater	3.35E-01	$Elocal_{water}$

Scenario 2: PT1 – Professional use – disinfectants used for skin and hand application in hospitals, based on tonnes per annum

Please refer to Confidential Annex.

2.2.8.2.11 Meta Group 11

The Meta 11 family consists of 3 formulations which contain a maximum of 1.5% w/w H_2O_2: Klerwipe Sporicidal Enhanced Peroxide, Incidin OxyWipe S and KitchenPro Oxy Wipe S. The formulations are for use in PT2 and PT4 (hard surface disinfection for non-food and food contact surfaces, respectively) and are supplied as ready-to-use wipes.

Assessment of the following emission scenarios, applicable to Meta 11, were performed in accordance with the ESDs for PT2 (2001 and 2011) and PT4 (2011) and using ECHAs PT2 and PT4 Excel Spreadsheets (v1.0, 05/02/2016):

- Scenario 3: PT2 – Disinfection of industrial areas based on application rate
- Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied
- Scenario 5: PT2 – Disinfection of industrial areas/sanitary use based on consumption per capita
- Scenario 6: PT2 – Sanitary use based on annual tonnage applied
- Scenario 7: PT2 – Medical Sector disinfection of rooms, furniture and objects based on annual tonnage applied
- Scenario 12: PT 4 – Disinfection large scale catering kitchens, canteens, slaughterhouses and butcheries by small scale, ready-to-use products

General information

Assessed PT	PT2	PT 4
Assessed scenarios	Scenario 3: Disinfection in industrial areas based on application rate Scenario 4: Disinfection in industrial areas based on annual tonnage applied Scenario 5: Disinfection in industrial areas / sanitary use based on consumption per capita Scenario 6: Sanitary use based on annual tonnage applied Scenario 7: Medical sector disinfection of rooms, furniture and objects based on annual tonnage applied	Scenario 12: Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by small scale, ready-to-use products
ESD(s) used	JRC 2011, Emission Scenario Documents for Product Type 2: Private and public health area disinfectants and other biocidal products. Van der Poel 2001, RIVM report 601 450 008. Emission Scenario Document for Product Type 2: Private and public health area disinfectants and other	JRC 2011, Emission Scenario Documents for Product Type 4: Disinfectants used in food and feed areas

	biocidal products (sanitary and medical sector).	
Approach	Scenario 3: application rate Scenario 4: consumption per capita Scenarios 4, 6 and 7: annual tonnage applied	Scenario 12: application rate
Distribution in the environment	Calculated based on ESD JRC 2011, ESD RIVM 2001 and EUSES 2.1.2	Calculated based on ESD JRC 2011, and EUSES 2.1.2
Groundwater simulation	No	No
Confidential Annexes	Yes	Yes
Life cycle steps assessed	Production: No Formulation: No Use: Yes Service life: No	Production: No Formulation: No Use: Yes Service life: No
Remarks	None	None

Emission estimation

Scenario 3: PT2 – Disinfection in industrial areas based on application rate

Formulations are applied by wiping. Typically, 1 wipe is used per m^2 of surface, resulting in an estimated surface application rate of 10 ml formulation/m^2. Small areas may be disinfected frequently, therefore to address the worst case in the exposure assessment; disinfection is assumed to take place 96 times per day. As the products are supplied as ready-to-use formulations, disinfection of hard surfaces in industrial areas will be limited to small-scale applications.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of biocidal product	Vform	0.01*	l/m²	S
Concentration of active substance in the product	Cform	15.15**	g/l	S
Surface area to be disinfected	$AREA_{surface}$	25	m^2	P TAB v2.0, ENV 46 - RTU (small-scale application)
Number of applications per day	Nappl	96	d^{-1}	S
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0**	[-]	D
Fraction released to wastewater	F_{water}	1	[-]	D

[1] *S: data set; D: default; P: pick list*

*Products are applied at a rate of 10 ml/m^2 RTU wipe applications.

** Based on a H_2O_2 concentration of 1.5% w/w (in Klerwipe Sporicidal Enhanced Peroxide) and a product density of 1.01 g/ml, the concentration of active substance in the product is 15.15 g/l.
*** This is a highly conservative step 1 assessment.

Calculations for Scenario 3

$Elocal_{water} = Vform \bullet Cform \bullet AREA_{surface} \bullet Nappl \bullet (1 - F_{dis}) \bullet F_{water} /1000$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater	3.64E-01	Local release to waste water (without pre-treatment)

Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 5: PT2 – Disinfection in industrial areas / sanitary use based on consumption per capita

The 'Disinfection in industrial areas / sanitary use based on consumption per capita' scenario was modelled using the highest H_2O_2 concentration (1.5% w/w) in the products of the Meta family, in order to yield the highest Elocal. Therefore, it can be considered that the following scenario addresses all products in the Meta group.

Input parameters for calculating the local emission				
Variable/parameter	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Number of inhabitants feeding one STP	Nlocal	10000	[-]	D
Fraction released to wastewater	$F_{4,water}$	1	[-]	D
Concentration of active substance in the product	Cform	0.01515*	kg/l	S
Consumption per capita: General purpose (tiles, floors, sinks)	$Vform_1$	0.005	$l.cap^{-1}.d^{-1}$	D
Consumption per capita: Lavatory	$Vform_2$	0.002	$l.cap^{-1}.d^{-1}$	D
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0**	[-]	D
Fraction released to wastewater	Fpenetr	0.5	[-]	D
[1] *S: data set; D: default; O: output; P: pick list*				

* Based on a 1.5% w/w concentration of H_2O_2 and a formulation density of 1.01 g/ml, the concentration of active substance in the product is 0.01515 kg/l. ** This is a highly conservative step 1 assessment.

Calculations for Scenario 5

$$\boldsymbol{Elocal_{4,water}} = Nlocal * (Vform_1 + Vform_2) * Cform * Fpenetr * (1-F_{dis}) * F_{4,water}$$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (Standard STP)	5.30E-01	$Elocal_{4,water}$

Scenario 6: PT2 – Sanitary use based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 7: PT2 – Medical sector disinfection of rooms, furniture and objects based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 12: PT4 – Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by small scale, ready-to-use products

Products are applied by wiping. Typically, 1 wipe is used per m^2 of surface, resulting in an estimated surface application rate of 10 ml formulation/m^2. Small areas may be disinfected frequently, therefore to address the worst case in the exposure assessment; disinfection is assumed to take place 96 times per day. As the products are supplied as ready-to-use formulations, disinfection of hard surfaces in large scale facilities will be limited to small-scale applications.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of the active substance	$Q_{a.i,\ appl}$	0.1515*	$g.m^{-2}$	S
Surface area disinfected in slaughterhouses and butcheries	$AREA_{surface,\ slaughterhouse}$	10	m^2	D TAB v2.0, ENV 67
Surface area disinfected in large scale catering kitchens and canteens	$AREA_{surface,kitchens}$	50	m^2	D TAB v2.0, ENV 67

Number of applications per day	N_{appl}	96	d^{-1}	D
Fraction disintegrated during or after application (before release to the sewage system)	F_{dis}	0	-	D
Fraction eliminated due to on-site pre-treatment of the plant waste water	F_{elim}	0	-	D
Fraction released to wastewater	F_{water}	1	-	D
Output	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Local release to wastewater from slaughterhouse	$Elocal_{water,slaughterhouse}$	1.45E-01	$kg.d^{-1}$	O
Local release to wastewater from large scale catering kitchens	$Elocal_{water,kitchens}$	7.27E-01	$kg.d^{-1}$	O

[1] *S: data set; D: default; O: output; P: pick list*

*Based on a H_2O_2 concentration of 1.5% w/w and a product density of 1.01 g/ml, the concentration of active substance in the product is 15.15 g/l. Products are applied at a maximum rate of 10 ml/m^2.

Calculations for Scenario 12

$Elocal_{water,slaugherhouse} = Q_{ai,appl} * AREA_{surface,slaugherhouse} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$

$Elocal_{water,kitchens} = Q_{ai,appl} * AREA_{surface,kitchens} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$

$Elocal_{waer,total} = Elocal_{water,slaughterhouse} + Elocal_{water,kitchens}$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater	8.73E-01	$Elocal_{water,total}$

2.2.8.2.12 Meta Group 12

The Meta 12 family consists of one formulation, OxyDes Maxi Wipes, which contains a maximum 2.3% w/w H_2O_2. OxyDes Maxi Wipes are for use in PT2 and PT4 (hard surface disinfection for non-food and food contact surfaces, respectively) and are supplied as ready-to-use wipes.

Assessment of the following emission scenarios, applicable to Meta 12, were performed in accordance with the ESDs for PT2 (2001 and 2011) and PT4 (2011) and using ECHAs PT2 and PT4 Excel Spreadsheets (v1.0, 05/02/2016):

- Scenario 3: PT2 – Disinfection of industrial areas based on application rate
- Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied

- Scenario 5: PT2 – Disinfection of industrial areas/sanitary use based on consumption per capita
- Scenario 6: PT2 – Sanitary use based on annual tonnage applied
- Scenario 12: PT 4 – Disinfection large scale catering kitchens, canteens, slaughterhouses and butcheries by small scale, ready-to-use products

General information

Assessed PT	PT2	PT 4
Assessed scenarios	Scenario 3: Disinfection in industrial areas based on application rate Scenario 4: Disinfection in industrial areas based on annual tonnage applied Scenario 5: Disinfection in industrial areas / sanitary use based on consumption per capita Scenario 6: Sanitary use based on annual tonnage applied	Scenario 12: Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by small scale, ready-to-use products
ESD(s) used	JRC 2011, Emission Scenario Documents for Product Type 2: Private and public health area disinfectants and other biocidal products. Van der Poel 2001, RIVM report 601 450 008. Emission Scenario Document for Product Type 2: Private and public health area disinfectants and other biocidal products (sanitary and medical sector).	JRC 2011, Emission Scenario Documents for Product Type 4: Disinfectants used in food and feed areas
Approach	Scenario 3: application rate Scenario 4: consumption per capita Scenarios 4 and 6: annual tonnage applied	Scenario 12: application rate
Distribution in the environment	Calculated based on ESD JRC 2011, ESD RIVM 2001 and EUSES 2.1.2	Calculated based on ESD JRC 2011, and EUSES 2.1.2
Groundwater simulation	No	No
Confidential Annexes	Yes	Yes
Life cycle steps assessed	Production: No Formulation: No Use: Yes Service life: No	Production: No Formulation: No Use: Yes Service life: No
Remarks	None	None

Emission estimation

Scenario 3: PT2 – Disinfection in industrial areas based on application rate

Formulations are applied by wiping. Typically, 1 wipe is used per m^2 of surface, resulting in an estimated surface application rate of 10 ml formulation/m^2. Small areas may be disinfected frequently, therefore to address the worst case in the exposure assessment; disinfection is assumed to take place 96 times per day. As the products are supplied as ready-to-use formulations, disinfection of hard surfaces in industrial areas will be limited to small-scale applications.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of biocidal product	Vform	0.01*	l/m²	S
Concentration of active substance in the product	Cform	22.31**	g/l	S
Surface area to be disinfected	$AREA_{surface}$	25	m^2	P TAB v2.0, ENV 46 - RTU (small-scale application)
Number of applications per day	Nappl	96	d^{-1}	S
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0**	[-]	D
Fraction released to wastewater	F_{water}	1	[-]	D

[1] *S: data set; D: default; P: pick list*

*Products are applied at a rate of 10 ml/m^2 as RTU wipe applications.

** Based on a H_2O_2 concentration of 2.3% w/w and a product density of 0.97 g/ml, the concentration of active substance in the products is 22.31 g/l.

*** This is a highly conservative step 1 assessment.

Calculations for Scenario 3

$$Elocal_{water} = Vform \bullet Cform \bullet AREA_{surface} \bullet Nappl \bullet (1 - F_{dis}) \bullet F_{water} / 1000$$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater	5.35E-01	Local release to waste water (without pre-treatment)

Scenario 4: PT2 – Disinfection in industrial areas based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 5: PT2 – Disinfection in industrial areas / sanitary use based on consumption per capita

The 'Disinfection in industrial areas / sanitary use based on consumption per capita' scenario was modelled using the highest H_2O_2 concentration (2.3% w/w) in the products of the Meta family, in order to yield the highest Elocal. Therefore, it can be considered that the following scenario addresses all products in the Meta group.

Input parameters for calculating the local emission				
Variable/parameter	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Number of inhabitants feeding one STP	Nlocal	10000	[-]	D
Fraction released to wastewater	$F_{4,water}$	1	[-]	D
Concentration of active substance in the product	Cform	0.02231*	kg/l	S
Consumption per capita: General purpose (tiles, floors, sinks)	$Vform_1$	0.005	$l.cap^{-1}.d^{-1}$	D
Consumption per capita: Lavatory	$Vform_2$	0.002	$l.cap^{-1}.d^{-1}$	D
Fraction of substance disintegrated during or after application (before release to the sewage system)	F_{dis}	0**	[-]	D
Fraction released to wastewater	Fpenetr	0.5	[-]	D

[1] *S: data set; D: default; O: output; P: pick list*

** Based on a H_2O_2 concentration of 2.3% w/w and a product density of 0.97 g/ml, the concentration of active substance in the products is 22.31 g/l.

** This is a highly conservative step 1 assessment.

Calculations for Scenario 5

$$\boldsymbol{Elocal_{4,water}} = Nlocal * (Vform_1 + Vform_2) * Cform * Fpenetr * (1-F_{dis}) * F_{4,water}$$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater (Standard STP)	7.81E-01	$Elocal_{4,water}$

Scenario 6: PT2 – Sanitary use based on annual tonnage applied

The emission scenario is based on confidential tonnage data. Please refer to Confidential Annex.

Scenario 12: PT4 – Disinfection of large-scale catering kitchens, canteens, slaughterhouses and butcheries by small scale, ready-to-use products

Products are applied by wiping. Typically, 1 wipe is used per m^2 of surface, resulting in an estimated surface application rate of 10 ml formulation/m^2. Small areas may be disinfected frequently, therefore to address the worst case in the exposure assessment; disinfection is assumed to take place 96 times per day. As the products are supplied as ready-to-use formulations, disinfection of hard surfaces in large scale facilities will be limited to small-scale applications.

Input parameters for calculating the local emission				
Input	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Application rate of the active substance	$Q_{a.i,\ appl}$	0.2231*	$g.m^{-2}$	S
Surface area disinfected in slaughterhouses and butcheries	$AREA_{surface,\ slaughterhouse}$	10	m^2	D TAB v2.0, ENV 67
Surface area disinfected in large scale catering kitchens and canteens	$AREA_{surface,kitchens}$	50	m^2	D TAB v2.0, ENV 67
Number of applications per day	N_{appl}	96	d^{-1}	D
Fraction disintegrated during or after application (before release to the sewage system)	F_{dis}	0	-	D
Fraction eliminated due to on-site pre-treatment of the plant waste water	F_{elim}	0	-	D
Fraction released to wastewater	F_{water}	1	-	D
Output	**Symbol**	**Value**	**Unit**	**Remarks[1]**
Local release to wastewater from slaughterhouse	$Elocal_{water,slaughterhouse}$	2.14E-01	$kg.d^{-1}$	O
Local release to wastewater from large scale catering kitchens	$Elocal_{water,kitchens}$	1.07E+00	$kg.d^{-1}$	O

[1] *S: data set; D: default; O: output; P: pick list*

* Based on a H_2O_2 concentration of 2.3% w/w and a product density of 0.97 g/ml, the concentration of active substance in the products is 22.31 g/l. Products are applied at a maximum rate of 10 ml/m^2.

Calculations for Scenario 12

$$Elocal_{water,slaugherhouse} = Q_{ai,appl} * AREA_{surface,slaugherhouse} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$$

$$Elocal_{water,kitchens} = Q_{ai,appl} * AREA_{surface,kitchens} * N_{appl} * (1-F_{dis}) * (1-F_{elim}) * F_{water} /1000$$

$$Elocal_{waer,total} = Elocal_{water,slaughterhouse} + Elocal_{water,kitchens}$$

Resulting local emission to relevant environmental compartments		
Compartment	**Local emission ($Elocal_{compartment}$) [kg/d]**	**Remarks**
Wastewater	1.29E+00	$Elocal_{water,total}$

Fate and distribution in exposed environmental compartments

The following table summarises the environmental compartments which will be exposed directly or indirectly to the active substance.

Identification of relevant receiving compartments based on the exposure pathway									
	Fresh-water	Freshwater sediment*	Sea-water**	Seawater sediment**	STP	Air	Soil	Ground-water	Other
Metas 2, 3 and 5-12	(+)	(+)	-	-	+	+	(+)	(+)	-
Meta 4	(+)	(+)	-	-	+	+	+/(+)	(+)	-
Meta 1	-	-	-	-	-	+	-	-	-
+ directly exposed / (+) indirectly exposed / - not exposed * As hydrogen peroxide is miscible with water in all proportions and taking into account that the calculated log KOC is 0.2036 mL/g, it is expected that hydrogen peroxide has a low potential for adsorption to soil and for partitioning to suspended matter or sediment. ** Based on the intended use it can be concluded that the risk to the marine environment is considered to be negligible.									

The following table summarises the substance specific input parameters of hydrogen peroxide utilised in the following exposure assessment. All substance specific input parameters were obtained from the Assessment Report for hydrogen peroxide unless stated otherwise.

Input parameters (only set values) for calculating the fate and distribution in the environment from the AR (2015)			
Input	**Value**	**Unit**	**Remarks**
Molecular weight	34.01	g/mol	
Melting point	-0.43	ºC	-0.40 to -0.43°C
Boiling point	150.2	ºC	At 101.3 kPa
Vapour pressure (at 25°C)	299	Pa	
Water solubility (at 25°C)	1E+05	mg/l	As H_2O_2 is miscible in water in all proportions, the maximum water solubility value accepted by EUSES was assumed
Log Octanol/water partition coefficient	–1.57	Log 10	
Organic carbon/water partition coefficient (Koc)	1.60	l/kg	Calculated from logKoc reported as 0.2036 in the AR which was estimated by QSAR.
Henry's Law Constant (at 20°C)	7.5E-04	$Pa/m^3/mol$	
Biodegradability	Not applicable		H_2O_2 is an inorganic substance
DT_{50} for STP	2	min	At 20°C
DT_{50} for hydrolysis in surface water	5	days	Assumed 12ºC*
DT_{50} for degradation in soil	12	hours (at 12ºC)	Assumed 12ºC**
DT_{50} for degradation in air	24	hours	Assumed 12ºC**
Bioaccumulation	-	-	The logKow is < -1 indicating no potential for bioaccumulation
*An extreme worst case DT50 estimate to take account for unfavourable conditions, i.e. oligotrophic cold waters with low microbial density and low transition metal concentrations. **Worst case DT50 estimate based on the literature sources.			

PEC calculations were performed considering the above substance specific input parameters and the Elocal values calculated above for the individual scenarios for individual Meta groups. Calculations were performed with EUSES v.2.1.2, and the distribution in an STP using the SimpleTreat model within it. The calculated distribution of hydrogen peroxide in an STP is presented in the following table. Subsequent calculated PEC values are presented in the table below.

Calculated fate and distribution in the STP		
Compartment	**Percentage [%]**	**Remarks**
	All PT2 scenarios (except for META 1 Family)	
Air	1.04E-04	-
Water	0.685	-
Sludge	0.0144	-
Degraded in STP	99.3	-

Calculated PEC values

None of the Meta 1 formulations will be rinsed after use and there will be no wet washing of treated areas; consequently, there will be no exposure of an STP and subsequently no exposure to fresh-water, sediment, soil or groundwater. As such, no quantitative risk assessment has been performed for products in this Meta group.

For all other Metas, for which an exposure to the environment is expected *via* emissions through the STP or direct soil contact, a quantitative risk assessment has been performed.

For hydrogen peroxide it was agreed [redacted] that no groundwater assessment is required since it is very unlikely that any substance will reach the groundwater. Hydrogen peroxide will rapidly degrade on the treated surface during disinfection, transit in the sewer system or degradation in slurry/manure during storage or degradation in the soil during percolation through the soil column (soil DT50 12 hours). Furthermore, since Directive 98/83/EC does not specify a parametric limit for H2O2 in groundwater, calculation of PEC_{gw} values is considered meaningless.

Since Meta 5 assesses the same uses as Meta 2 but at a higher active substance concentration (1.5% w/w H_2O_2) [redacted], it can be considered that the assessment for Meta 2 is covered in the assessment of Meta 5.

Since Meta 11 assesses the same uses as Meta 8 but at a higher active substance concentration (1.5% w/w H_2O_2) [redacted], it can be considered that the assessment for Meta 8 is covered in the assessment of Meta 11.
Please refer to Confidential Annex for confidential values not inserted into the tables.

As previously mentioned, Meta 2 is covered by the assessment of Meta 5.

Summary table of calculated PEC values – Meta Group 3						
PT	**Scenario**	**PEC_{STP}**	**PEC_{water}**	**PEC_{sed}**	**PEC_{soil}**	**PEC_{air}**
		[mg/l]	[mg/l]	[mg/kg_{wwt}]	[mg/kg_{wwt}]	[mg/m^3]
4	9: on-site STP	-	4.59E-03*	3.75E-03	-	-
	9: off-site STP	2.83E-03	2.83E-04	2.31E-04	5.29E-06	1.20E-10
	10	2.54E-01	2.54E-02	2.07E-02	4.75E-04	2.14E-08
*Calculated considering an additional dilution factor of 10 for the on-site effluent as specified in ECHAs PT4 Excel Spreadsheet (v1.0, 05/02/2016).						

The following calculations of PT3 teat-dip emission estimation (scenarios 9) for the Meta 4 group, were performed for release to waste water and then to an STP, and for emission to slurry or manure and subsequent spreading on arable land or grassland.

Summary table of calculated PEC values – Meta Group 4						
PT	**Scenario**	**PEC_{STP}**	**PEC_{water}**	**PEC_{sed}**	**PEC_{soil}**	**PEC_{air}**
		[mg/l]	[mg/l]	[mg/kg_{wwt}]	[mg/kg_{wwt}]	[mg/m^3]

3	8 – STP	3.79E-05	3.79E-06	3.10E-06	7.12E-08	3.22E-12
	8 – slurry/ manure	-	-	-	3.94E-04*†	-

*Calculated using equation 66 of the ECHA BPR Vol IV, Part B+C, based on a 'Total rate constant for degradation in bulk soil' of 1.38629 d^{-1} (12°C), an 'Average time' of 30 days and an 'Initial concentration (after manure application)' of 1.64E-02 mg/kg_{wwt}.

†PEC values were calculated for 1 year of manure applications only: Hydrogen peroxide has a DT_{50} of 12 hours in soil at 12°C, so will not accumulate in soil.

Summary table of calculated PEC values – Meta Group 5						
PT	**Scenario**	**PEC_{STP}**	**PEC_{water}**	**PEC_{sed}**	**PEC_{soil}**	**PEC_{air}**
		[mg/l]	[mg/l]	[mg/kg_{wwt}]	[mg/kg_{wwt}]	[mg/m^3]
2	3	2.49E-03	2.49E-04	2.04E-04	4.66E-06	2.11E-10
	4					
	5	1.82E-03	1.82E-04	1.48E-04	3.4E-06	1.54E-10
	6					
	7					
4	11 (large area)	1.25E-02	1.25E-03	1.02E-03	2.33E-05	1.05E-09
	11 (small area)	6.24E-04	6.24E-05	5.10E-05	1.17E-06	5.29E-11

Summary table of calculated PEC values – Meta Group 6						
PT	**Scenario**	**PEC_{STP}**	**PEC_{water}**	**PEC_{sed}**	**PEC_{soil}**	**PEC_{air}**
		[mg/l]	[mg/l]	[mg/kg_{wwt}]	[mg/kg_{wwt}]	[mg/m^3]
2	3	1.83E-03	1.83E-04	1.50E-04	3.43E-06	1.55E-10
	4					
	5	2.68E-03	2.68E-04	2.19E-04	5.01E-06	2.27E-10
	6					
4	11 (large area)	9.18E-03	9.18E-04	7.50E-04	1.72E-05	7.76E-10
	11 (small area)	4.59E-04	4.59E-05	3.75E-05	8.60E-07	3.89E-11

Summary table of calculated PEC values – Meta Group 7						
PT	**Scenario**	**PEC_{STP}**	**PEC_{water}**	**PEC_{sed}**	**PEC_{soil}**	**PEC_{air}**
		[mg/l]	[mg/l]	[mg/kg_{wwt}]	[mg/kg_{wwt}]	[mg/m^3]
2	3 (large area)	6.93E-03	6.93E-04	5.67E-04	1.30E-05	5.86E-10
	3 (small area)	1.92E-04	1.92E-05	1.57E-05	3.60E-07	1.63E-11
	4					
	5	1.35E-03	1.35E-04	1.10E-04	2.52E-06	1.14E-10
	6					
	7					
4	11 (large area)	9.23E-03	9.23E-04	7.53E-04	1.73E-05	7.80E-10
	11 (small area)	4.62E-04	4.62E-05	3.78E-05	8.66E-07	3.92E-11

As previously mentioned, Meta 8 is covered by the assessment of Meta 11.

Summary table of calculated PEC values – Meta Group 9						
PT	**Scenario**	**PEC_{STP}**	**PEC_{water}**	**PEC_{sed}**	**PEC_{soil}**	**PEC_{air}**
		[mg/l]	[mg/l]	[mg/kg_{wwt}]	[mg/kg_{wwt}]	[mg/m^3]
2	3 (large area)	2.49E-03	2.49E-04	2.04E-04	4.67E-06	2.11E-10
	3 (small area)	6.92E-05	6.92E-06	5.66E-06	1.30E-07	5.87E-12
	4					
	5	4.84E-04	4.84E-05	3.96E-05	9.08E-07	4.11E-11
	6					
	7					
4	11 (large area)	3.33E-03	3.33E-04	2.72E-04	6.23E-06	2.81E-10
	11 (small area)	1.66E-04	1.66E-05	1.36E-05	3.12E-07	1.41E-11

Summary table of calculated PEC values – Meta Group 10						
PT	**Scenario**	**PEC_{STP}**	**PEC_{water}**	**PEC_{sed}**	**PEC_{soil}**	**PEC_{air}**
		[mg/l]	[mg/l]	[mg/kg_{wwt}]	[mg/kg_{wwt}]	[mg/m^3]
1	1	1.15E-03	1.15E-04	9.37E-05	2.15E-06	9.72E-11
	2					

Summary table of calculated PEC values – Meta Group 11						
PT	**Scenario**	**PEC_{STP}**	**PEC_{water}**	**PEC_{sed}**	**PEC_{soil}**	**PEC_{air}**
		[mg/l]	[mg/l]	[mg/kg_{wwt}]	[mg/kg_{wwt}]	[mg/m^3]
2	3	1.25E-03	1.25E-04	1.02E-04	2.33E-06	1.05E-10
	4					
	5	1.82E-03	1.82E-04	1.48E-04	3.40E-06	1.54E-10
	6					
	7					
4	12	2.99E-03	2.99E-04	2.44E-04	5.60E-06	2.53E-10

Summary table of calculated PEC values – Meta Group 12						
PT	**Scenario**	**PEC_{STP}**	**PEC_{water}**	**PEC_{sed}**	**PEC_{soil}**	**PEC_{air}**
		[mg/l]	[mg/l]	[mg/kg_{wwt}]	[mg/kg_{wwt}]	[mg/m^3]
2	3	1.83E-03	1.83E-04	1.50E-04	3.43E-06	1.55E-10
	4					
	5	2.68E-03	2.68E-04	2.19E-04	5.01E-06	2.27E-10
	6					
4	12	4.41E-03	4.41E-04	3.60E-04	8.25E-06	3.73E-10

Primary and secondary poisoning

Primary poisoning

Not applicable.

Secondary poisoning

The estimated log K_{ow} of hydrogen peroxide is –1.57 indicating a negligible potential for bioconcentration in biota. Therefore, it is justified that accumulation of hydrogen peroxide in the food chain is not expected, and the risk of secondary poisoning in aquatic and terrestrial predators is negligible.

2.2.8.3 Risk characterisation

The risk assessment for the worst-case use of each of the scenarios for each of the Meta groups is presented in the following sections. PEC/PNEC calculations are performed based upon the PECs calculated in Section 2.2.8.2 and the ecotoxicological endpoints taken from the hydrogen peroxide Assessment Report and summarized in Section 2.2.8.1.

Atmosphere

[redacted]

Therefore, further assessment of PECs in air from emissions due to the use of hydrogen peroxide as a PT1, PT2, PT3 and PT4 is not necessary.

Sewage treatment plant (STP)

Please refer to Confidential Annex for confidential values not inserted into the tables.

Meta Group 1

Exposure to the local STP from the use of PT2 formulations in the Meta 1 Family is not expected as the products will not be rinsed after use and/or wet washing of treated areas will not occur. Therefore, it is justified that an acceptable risk to the local STP from PT2 uses is concluded.

Meta Group 2

Meta 2 is covered by the assessment of Meta 5.

Meta Group 3

Summary table on calculated PEC/PNEC values – Meta Group 3				
PT	**Scenario**	**PEC_{STP}**	**$PNEC_{STP}$**	**$PEC/PNEC_{STP}$**
		[mg/l]	[mg/l]	**-**
4	9: on-site STP	-	4.66	-
	9: off-site STP	2.83E-03		6.07E-04
	10	2.54E-01		5.44E-02

The risk to the STP from the PT4 use of Meta 3 products is acceptable.

Meta Group 4

Summary table on calculated PEC/PNEC values – Meta Group 4				
PT	**Scenario**	**PEC_{STP}**	**$PNEC_{STP}$**	**$PEC/PNEC_{STP}$**
		[mg/l]	[mg/l]	**-**
3	8 – STP	3.79E-05	4.66	8.14E-06
	8 – slurry/ manure	-		-

The risk to the STP from the PT3 use of Meta 4 products is acceptable.

Meta Group 5

Summary table on calculated PEC/PNEC values - Meta Group 5				
PT	**Scenario**	**PEC_{STP}**	**$PNEC_{STP}$**	**$PEC/PNEC_{STP}$**
		[mg/l]	[mg/l]	**-**
2	3	2.49E-03	4.66	5.35E-04
	4			
	5	1.82E-03		3.91E-04
	6			
	7			
4	11 (large area)	1.25E-02		2.68E-03
	11 (small area)	6.24E-04		1.34E-04

The risk to the STP from the PT2 and PT4 use of the Meta 5 products is acceptable.

Meta Group 6

Summary table on calculated PEC/PNEC values – Meta Group 6				
PT	**Scenario**	**PEC_{STP}**	**$PNEC_{STP}$**	**$PEC/PNEC_{STP}$**
		[mg/l]	[mg/l]	-
2	3	1.83E-03	4.66	3.94E-04
	4			
	5	2.68E-03		5.75E-04
	6			
4	11 (large area)	9.18E-03		1.97E-03
	11 (small area)	4.59E-04		9.85E-05

The risk to the STP from the PT2 and PT4 use of the Meta 6 products is acceptable.

Meta Group 7

Summary table on calculated PEC/PNEC values – Meta Group 7				
PT	**Scenario**	**PEC_{STP}**	**$PNEC_{STP}$**	**$PEC/PNEC_{STP}$**
		[mg/l]	[mg/l]	-
2	3 (large area)	6.93E-03	4.66	1.49E-03
	3 (small area)	1.92E-04		4.12E-05
	4			
	5	1.35E-03		2.89E-04
	6			
	7			
4	11 (large area)	9.23E-03		1.98E-03
	11 (small area)	4.62E-04		9.91E-05

The risk to the STP from the PT2 and PT4 use of the Meta 7 products is acceptable.

Meta Group 8

Meta 8 is covered by the assessment of Meta 11.

Meta Group 9

Summary table on calculated PEC/PNEC values – Meta Group 9				
PT	**Scenario**	**PEC_{STP}**	**$PNEC_{STP}$**	**$PEC/PNEC_{STP}$**
		[mg/l]	[mg/l]	**-**
2	3 (large area)	2.49E-03	4.66	5.35E-04
	3 (small area)	6.92E-05		1.48E-05
	4			
	5	4.84E-04		1.04E-04
	6			
	7			
4	11 (large area)	3.33E-03		7.14E-04
	11 (small area)	1.66E-04		3.56E-05

The risk to the STP from the PT2 and PT4 use of the Meta 9 products is acceptable.

Meta Group 10

Summary table on calculated PEC/PNEC values – Meta Group 10				
PT	**Scenario**	**PEC_{STP}**	**$PNEC_{STP}$**	**$PEC/PNEC_{STP}$**
		[mg/l]	[mg/l]	**-**
1	1	1.15E-03	4.66	2.46E-04
	2			

The risk to the STP from the PT1 use of Meta 10 is acceptable.

Meta Group 11

Summary table on calculated PEC/PNEC values – Meta Group 11				
PT	**Scenario**	**PEC_{STP}**	**$PNEC_{STP}$**	**$PEC/PNEC_{STP}$**
		[mg/l]	[mg/l]	-
2	3	1.25E-03	4.66	2.68E-04
	4			
	5	1.82E-03		3.91E-04
	6			
	7			
4	12	2.99E-03		6.42E-04

The risk to the STP from the PT2 and PT4 use of the Meta 11 products is acceptable.

Meta Group 12

Summary table on calculated PEC/PNEC values – Meta Group 12				
PT	**Scenario**	**PEC_{STP}**	**$PNEC_{STP}$**	**$PEC/PNEC_{STP}$**
		[mg/l]	[mg/l]	-
2	3	1.83E-03	4.66	3.94E-04
	4			
	5	2.68E-03		5.75E-04
	6			
4	12	4.41E-03		9.46E-04

The risk to the STP from the PT2 and PT4 use of the Meta 12 products is acceptable.

Conclusion: The risk to the STP from the use of the Hydrogen Peroxide Family 1 is acceptable.

Aquatic compartment

Please refer to Confidential Annex for confidential values not inserted into the tables.

Meta Group 1

Exposure to surface water from the use of PT2 formulations in the Meta 1 product family is not expected as there will be no exposure to the STP *via* waste water. Therefore, it is justified an acceptable risk to surface water and sediment from PT2 uses is concluded.

Meta Group 2

Meta 2 is covered by the assessment of Meta 5.

Meta Group 3

Summary table on calculated PEC/PNEC values – Meta Group 3				
PT	**Scenario**	**PEC_{water}**	**$PNEC_{water}$**	**$PEC/PNEC_{water}$**
		[mg/l]	[mg/l]	-
4	9: on-site STP	4.59E-03	0.0126	3.64E-01
	9: off-site STP	2.83E-04		2.25E-02
	10	2.54E-02		**2.01E+00**

PEC/PNEC exceeds 1 for scenario 10 (CIP in milking parlours). However, it should be noted that no disintegration of the active substance during disinfection or after application was assumed in the emission calculation. Hydrogen peroxide degrades rapidly in contact with organic material, so would be largely consumed during the disinfection process and in the sewer system before reaching the STP. Therefore, the calculated PEC/PNEC represents an extreme worst case, and the realistic risk to the aquatic compartment from the PT4 use of Meta 3 products is acceptable.

Meta Group 4

Summary table on calculated PEC/PNEC values – Meta Group 4				
PT	**Scenario**	**PEC_{water}**	**$PNEC_{water}$**	**$PEC/PNEC_{water}$**
		[mg/l]	[mg/l]	-
3	8 – STP	3.79E-06	0.0126	3.01E-04
	8 – slurry/ manure	-		-

The risk to the aquatic compartment from the PT3 use of Meta 4 products is acceptable

Meta Group 5

Summary table on calculated PEC/PNEC values - Meta Group 5				
PT	**Scenario**	**PEC_{water}**	**$PNEC_{water}$**	**$PEC/PNEC_{water}$**
		[mg/l]	[mg/l]	-
2	3	2.49E-04	0.0126	1.98E-02
	4			
	5	1.82E-04		1.44E-02
	6			
	7			
4	11 (large area)	1.25E-03		9.90E-02
	11 (small area)	6.24E-05		4.95E-03

The risk to the aquatic compartment from the PT2 and PT4 use of the Meta 5 products is acceptable.

Meta Group 6

Summary table on calculated PEC/PNEC values – Meta Group 6				
PT	**Scenario**	**PEC_{water}**	**$PNEC_{water}$**	**$PEC/PNEC_{water}$**
		[mg/l]	[mg/l]	-
2	3	1.83E-04	0.0126	1.46E-02
	4			
	5	2.68E-04		2.13E-02
	6			
4	11 (large area)	9.18E-04		7.29E-02
	11 (small area)	4.59E-05		3.64E-03

The risk to the aquatic compartment from the PT2 and PT4 use of the Meta 6 products is acceptable.

Meta Group 7

Summary table on calculated PEC/PNEC values – Meta Group 7				
PT	**Scenario**	**PEC_{water}**	**$PNEC_{water}$**	**$PEC/PNEC_{water}$**
		[mg/l]	[mg/l]	-
2	3 (large area)	6.93E-04	0.0126	5.50E-02
	3 (small area)	1.92E-05		1.52E-03
	4			
	5	1.35E-04		1.07E-02
	6			
	7			
4	11 (large area)	9.23E-04		7.32E-02
	11 (small area)	4.62E-05		3.67E-03

The risk to the aquatic compartment from the PT2 and PT4 use of the Meta 7 products is acceptable.

Meta Group 8

Meta 8 is covered by the assessment of Meta 11.

Meta Group 9

Summary table on calculated PEC/PNEC values – Meta Group 9				
PT	**Scenario**	**PEC_{water}**	**$PNEC_{water}$**	**$PEC/PNEC_{water}$**
		[mg/l]	[mg/l]	-
2	3 (large area)	2.49E-04	0.0126	1.98E-02
	3 (small area)	6.92E-06		5.49E-04
	4			
	5	4.84E-05		3.85E-03
	6			
	7			
4	11 (large area)	3.33E-04		2.64E-02
	11 (small area)	1.66E-05		1.32E-03

The risk to the aquatic compartment from the PT2 and PT4 use of the Meta 9 products is acceptable.

Meta Group 10

Summary table on calculated PEC/PNEC values – Meta Group 10				
PT	**Scenario**	**PEC_{water}**	**$PNEC_{water}$**	**$PEC/PNEC_{water}$**
		[mg/l]	[mg/l]	-
1	1	1.15E-04	0.0126	9.10E-03
	2			

The risk to the aquatic compartment from the PT1 use of Meta 10 is acceptable.

Meta Group 11

Summary table on calculated PEC/PNEC values – Meta Group 11				
PT	**Scenario**	**PEC_{water}**	**$PNEC_{water}$**	**$PEC/PNEC_{water}$**
		[mg/l]	[mg/l]	-
2	3	1.25E-04	0.0126	9.89E-03
	4			
	5	1.82E-04		1.44E-02
	6			
	7			
4	12	2.99E-04		2.38E-02

The risk to the aquatic compartment from the PT2 and PT4 use of the Meta 11 products is acceptable.

Meta Group 12

Summary table on calculated PEC/PNEC values – Meta Group 12				
PT	**Scenario**	**PEC_{water}**	**$PNEC_{water}$**	**$PEC/PNEC_{water}$**
		[mg/l]	[mg/l]	-
2	3	1.83E-04	0.0126	1.46E-02
	4			
	5	2.68E-04		2.13E-02
	6			
4	12	4.41E-04		3.50E-02

The risk to the aquatic compartment from the PT2 and PT4 use of the Meta 12 products is acceptable.

Conclusion: The risk to the aquatic compartment from the use of the Hydrogen Peroxide Family 1 is acceptable.

Terrestrial compartment

Please refer to Confidential Annex for confidential values not inserted into the tables.

Meta Group 1

Exposure to the terrestrial compartment from the use of PT2 formulations in the Meta 1 product family is not expected as there will be no exposure to the STP *via* waste water. Therefore, it is justified that an acceptable risk to the terrestrial compartment from PT2 uses is concluded.

Meta Group 2

Meta 2 is covered by the assessment of Meta 5.

Meta Group 3

Summary table on calculated PEC/PNEC values – Meta Group 3				
PT	**Scenario**	**PEC_{soil}**	**$PNEC_{soil}$**	**$PEC/PNEC_{soil}$**
		[mg/kg_{wwt}]	[mg/kg]	-
4	9: on-site STP	-	0.0018	-
	9: off-site STP	5.29E-06		2.94E-03
	10	4.75E-04		2.64E-01

The risk to the terrestrial compartment from the PT4 use of Meta 3 products is acceptable.

Meta Group 4

Summary table on calculated PEC/PNEC values – Meta Group 4				
PT	**Scenario**	**PEC_{soil}**	**$PNEC_{soil}$**	**$PEC/PNEC_{soil}$**
		[mg/kg_{wwt}]	[mg/kg]	-
3	8 – STP	7.12E-08	0.0018	3.96E-05
	8 – slurry/ manure	3.94E-04		2.19E-01

The risk to the terrestrial compartment from the PT3 use of Meta 4 products is acceptable

Meta Group 5

Summary table on calculated PEC/PNEC values - Meta Group 5				
PT	**Scenario**	**PEC_{soil}**	**$PNEC_{soil}$**	**$PEC/PNEC_{soil}$**
		[mg/kg_{wwt}]	[mg/kg]	-
2	3	4.66E-06	0.0018	2.59E-03
	4			
	5	3.40E-06		1.89E-03
	6			
	7			
4	11 (large area)	2.33E-05		1.30E-02
	11 (small area)	1.17E-06		6.50E-04

The risk to the terrestrial compartment from the PT2 and PT4 use of the Meta 5 products is acceptable.

Meta Group 6

Summary table on calculated PEC/PNEC values – Meta Group 6				
PT	**Scenario**	**PEC_{soil}**	**$PNEC_{soil}$**	**$PEC/PNEC_{soil}$**
		[mg/kg_{wwt}]	[mg/kg]	-
2	3	3.43E-06	0.0018	1.90E-03
	4			
	5	5.01E-06		2.79E-03
	6			
4	11 (large area)	1.72E-05		9.55E-03
	11 (small area)	8.60E-07		4.78E-04

The risk to the terrestrial compartment from the PT2 and PT4 use of the Meta 6 products is acceptable.

Meta Group 7

Summary table on calculated PEC/PNEC values – Meta Group 7				
PT	**Scenario**	**PEC_{soil}**	**$PNEC_{soil}$**	**$PEC/PNEC_{soil}$**
		[mg/l]	[mg/l]	-
2	3 (large area)	1.30E-05	0.0018	7.20E-03
	3 (small area)	3.60E-07		2.00E-04
	4			
	5	2.52E-06		1.40E-03
	6			
	7			
4	11 (large area)	1.73E-05		9.59E-03
	11 (small area)	8.66E-07		4.81E-04

The risk to the terrestrial compartment from the PT2 and PT4 use of the Meta 7 products is acceptable.

Meta Group 8

Meta 8 is covered by the assessment of Meta 11.

Meta Group 9

Summary table on calculated PEC/PNEC values – Meta Group 9				
PT	**Scenario**	**PEC_{soil}**	**$PNEC_{soil}$**	**$PEC/PNEC_{soil}$**
		[mg/l]	[mg/l]	-
2	3 (large area)	4.67E-06	0.0018	2.59E-03
	3 (small area)	1.30E-07		7.22E-05
	4			
	5	9.08E-07		5.05E-04
	6			
	7			
4	11 (large area)	6.23E-06		3.46E-03
	11 (small area)	3.12E-07		1.73E-04

The risk to the terrestrial compartment from the PT2 and PT4 use of the Meta 9 products is acceptable.

Meta Group 10

Summary table on calculated PEC/PNEC values – Meta Group 10				
PT	**Scenario**	**PEC_{soil}**	**$PNEC_{soil}$**	**$PEC/PNEC_{soil}$**
		[mg/kg_{wwt}]	[mg/kg]	-
1	1	2.15E-06	0.0018	1.19E-03
	2			

The risk to the terrestrial compartment from the PT1 use of Meta 10 is acceptable.

Meta Group 11

Summary table on calculated PEC/PNEC values – Meta Group 11				
PT	**Scenario**	**PEC_{soil}**	**$PNEC_{soil}$**	**$PEC/PNEC_{soil}$**
		[mg/kg_{wwt}]	[mg/kg]	-
2	3	2.33E-06	0.0018	1.30E-03
	4			
	5	3.40E-06		1.89E-03
	6			
	7			
4	12	5.60E-06		3.11E-03

The risk to the terrestrial compartment from the PT2 and PT4 use of the Meta 11 products is acceptable.

Meta Group 12

Summary table on calculated PEC/PNEC values – Meta Group 12				
PT	**Scenario**	**PEC_{soil}**	**$PNEC_{soil}$**	**$PEC/PNEC_{soil}$**
		[mg/kg_{wwt}]	[mg/kg]	-
2	3	3.43E-06	0.0018	1.90E-03
	4			
	5	5.01E-06		2.79E-03
	6			
4	12	8.25E-06		4.58E-03

The risk to the terrestrial compartment from the PT2 and PT4 use of the Meta 12 products is acceptable.

Conclusion: The risk to the terrestrial compartment from the use of the Hydrogen Peroxide Family 1 is acceptable.

Groundwater

For hydrogen peroxide it was agreed [redacted] that no groundwater assessment is required since it is very unlikely that any substance will reach the groundwater. Hydrogen peroxide will rapidly degrade on the treated surface during

disinfection, transit in the sewer system or degradation in slurry/manure during storage or degradation in the soil during percolation through the soil column (soil DT_{50} 12 hours).

Furthermore, since Directive 98/83/EC does not specify a parametric limit for H_2O_2 in groundwater, calculation of PEC_{gw} values is considered meaningless.

Primary and secondary poisoning

Primary poisoning

Not applicable.

Secondary poisoning

The estimated log K_{ow} of hydrogen peroxide is –1.57 indicating a negligible potential for bioconcentration in biota. Therefore, it is justified that accumulation of hydrogen peroxide in the food chain is not expected, and the risk of secondary poisoning in aquatic and terrestrial predators is negligible.

Mixture toxicity

Screening step

Screening Step 1: Identification of the concerned environmental compartments

For PT 1, 2, 3 and 4, emissions to the environment occur via wastewater to the STP, with subsequent indirect exposure of surface water and soil. Also, for PT 3 use, emissions may occur to slurry/manure with subsequent exposure of soil.

Screening Step 2: Identification of relevant substances

Refer to the Confidential Annex for full details of the formulations.

The active substance in the formulations is hydrogen peroxide.

The formulations do not contain substances that are classified as hazardous to the environment, or meet the criteria to be classified as hazardous to the environment, according to Regulation (EC) No 1272/2008, and that are present in the biocidal products at a concentration leading to the product to be regarded as hazardous to the environment.

The formulations do not contain substances that meet the criteria for being persistent organic pollutants (POP) under Regulation (EC) No 850/2004, or which meet the criteria for being persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with Annex XIII to Regulation (EC) No 1907/2006.

The formulations do not contain substances that represent 'other grounds for concern' to the environment (refer to Section 3.7.3 of the Confidential Annex).

As no substances of concern for the environment have been identified according to Article 3(f) of the BPR, only the active substance hydrogen peroxide is relevant for consideration in the risk assessment for the environment.

Screening Step 3: Screen on synergistic interactions

Synergistic interactions between the product constituents are not indicated in the literature.

Screening step	
Y	Significant exposure of environmental compartments? (Y/N)
N	Number of relevant substances >1? (Y/N)
N	Indication for synergistic effects for the product or its constituents in the literature? (Y/N)
	Conclusion: There are no substances of concern for the environment within the formulations and synergistic interactions between the constituents is not anticipated. Therefore, the risk to the environment from the use of the Hydrogen Peroxide Product Family 1 formulations is addressed by the risk assessment for the active substance presented above. No further consideration of mixture toxicity is necessary.

Although the co-formulants present in the BPF do not result in classification of the products for the environment according to Regulation 1272/2008, mixture toxicity has been assessed for Meta 10 since the Latvian CA believes that the application method may lead to the mixture being released to the environment. Therefore, mixture toxicity calculations have been included in Section 3.7.3 of the Confidential Annex.

Aggregated exposure (combined for relevant emission sources)

According to Article 19 of the BPR a cumulative risk assessment shall be performed where relevant. For hydrogen peroxide it was agreed [redacted] that aggregated risk assessment is not regarded relevant [redacted].

Overall conclusion on the risk assessment for the environment of the product
The risk to the environment from the use of the Hydrogen Peroxide Product Family 1 formulations is acceptable.

2.2.9 Measures to protect man, animals and the environment

Please see sections 2.1.3. – 2.1.90. of this PAR and the SPC for information.

2.2.10 Assessment of a combination of biocidal products

Not relevant. The products are not intended to be used with other products.

2.2.11 Comparative assessment

Not relevant. Hydrogen Peroxide is not candidate for substitution. As a result, a comparative assessment is not required.

3 Annexes

3.1 List of studies for the biocidal product (family)

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2017	CidalSan Large Area, [redacted], Peristent Foaming	[redacted]	161107ED / CFO17436	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-02-09	Unpublished	Yes
[redacted]	2017	Maxx Oxy 2, Peristent Foaming	[redacted]	161129EB / CFO17481	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-24	Unpublished	Yes
[redacted]	2016	CidalSan Large Area, [redacted]: Determination of Surface Tension	[redacted]	161107ED / CPT17436	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-12-08	Unpublished	Yes
[redacted]	2017	CidalSan Large Area, [redacted], Method Validation & Determination of the Content of the Active Ingredient following SANCO/3030/99 rev. 4 (2000)	[redacted]	161107ED/ CMV17436	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-02-27	Unpublished	Yes
[redacted]	2017	Maxx Oxy Des 2, Method Validation & Determination of the Content of the Active Ingredient following	[redacted]	161129EB/ CMV17481	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein	2017-01-24	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		SANCO/3030/99 rev. 4 (2000)	[redacted]		Germany			
[redacted]	2017	Maxx Oxy Des 2, Determination of Surface Tension	[redacted]	161129EB / CPT17481	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-12-08	Unpublished	Yes
[redacted]	-	Provisional stability tests results of Manosan Oxy	[redacted]	RB/190116/1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	-	Unpublished	Yes
[redacted]	2017	Test Report On the bactericidal efficacy of OxyFoam Plus following EN 1656	[redacted]	17-03061-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-25	Unpublished	Yes
[redacted]	2015	Surface Disinfection with mechanical action, Microbicidal efficacy of [redacted], Ready-to-use wipes, following FprEN16615	[redacted]	15-04677-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-08-12	Unpublished	Yes
[redacted]	2016	On the sporicidal activity [redacted]	[redacted]	16-13198-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein	2016-09-28	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		of [redacted] Oxypak D, according to EN 13704	[redacted]		Germany			
[redacted]	2016	On the sporicidal activity [redacted] of [redacted] Oxypak D, according to EN 13704	[redacted]	16-13198-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-28	Unpublished	Yes
[redacted]	2016	On the yeasticidal efficacy of DrySan Oxy Wipes, Ready to use product, following EN 1650	[redacted]	16-12092-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-11	Unpublished	Yes
[redacted]	2015	On the bactericidal efficacy of [redacted], Ready to use product, following EN 1276	[redacted]	15-02116	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-24	Unpublished	Yes
[redacted]	2015	On the fungicidal efficacy of [redacted], Ready to use product, following EN 1650	[redacted]	15-02116-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-24	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2017	Test report 16-12047-8-3-1, Surface Disinfection with mechanical action yeasticidal efficacy [redacted], OxyDes Maxi Wipes, Ready to use product, following EN 16615	[redacted]	16-12047-8-3-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-12-07	Unpublished	Yes
[redacted]	2017	Test report 16-12047-8-1-1, Surface Disinfection with mechanical action yeasticidal efficacy [redacted], OxyDes Maxi Wipes, Ready to use product, following EN 16615	[redacted]	16-12047-8-1-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-12-09	Unpublished	Yes
[redacted]	2017	Test report 16-12047-7-3-1, Surface Disinfection with mechanical action bactericidal efficacy [redacted], OxyDes Maxi Wipes, Ready to use product, following EN 16615	[redacted]	16-12047-7-3-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-12-07	Unpublished	Yes
[redacted]	2017	Test report 16-12047-6-1-1, Surface Disinfection with mechanical action [redacted]	[redacted]	16-12047-6-1-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2017-12-08	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		[redacted]. Bactericidal efficacy of OxyDes Maxi Wipes, Ready to use product, folloving EN 16615	[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2017	Test report 16-12047-6-2-2, Surface Disinfection with mechanical action Bactericidal efficacy [redacted] of OxyDes Maxi Wipes, Ready to use product, folloving EN 16615	[redacted]	16-12047-6-2-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-12-11	Unpublished	Yes
[redacted]	2017	Test report 17-08829-7, On the microbicidal surface activity of OxyDes Rapid, according to EN 13697:2015	[redacted]	17-08829-7-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-06-20	Unpublished	Yes
[redacted]	2017	Test report 17-08829-9, On the microbicidal surface activity of OxyDes Rapid, according to EN 13697:2015	[redacted]	17-08829-9	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-06-20	Unpublished	Yes
[redacted]	2017	Test report 17-08829-8, On the microbicidal surface activity of OxyDes Rapid, according to EN 13697:2015	[redacted]	17-08829-8-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-06-20	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
	2015	Surface Disinfection with mechanical action, Fungicidal and sporicidal efficacy of , , following FpREN		15-14764-3-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-12-16	Unpublished	Yes
	2015	Surface Disinfection with mechanical action, Fungicidal and sporicidal efficacy of , , following FpREN		15-12507-1-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-08-25	Unpublished	Yes
	2017	Test report 17-08829-2, On the bactericidal efficacy of OxyDes Rapid following EN 1276.		17-08829-2-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-06-20	Unpublished	Yes
	2017	Test report 17-08829-3, On the bactericidal efficacy of OxyDes Rapid following EN 1276.		17-08829-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-06-20	Unpublished	Yes
	2017	Test report 17-08829-1, On the bactericidal		17-08829-1	ECOLAB Deutschland GmbH,	2017-06-18	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		efficacy of OxyDes Rapid following EN 1276.	[redacted]		Ecolab-Allee 1, 40789 Monheim am Rhein Germany			
[redacted]	2017	Test report 17-08829-5, On the yeasticidal efficacy of OxyDes Rapid following EN 1650.	[redacted]	17-08829-5	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-06-20	Unpublished	Yes
[redacted]	2017	Test report 17-08829-6, On the yeasticidal efficacy of OxyDes Rapid following EN 1650.	[redacted]	17-08829-6-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-06-20	Unpublished	Yes
[redacted]	2017	Test report 17-08829-4, On the yeasticidal efficacy of OxyDes Rapid following EN 1650.	[redacted]	17-08829-4	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-06-20	Unpublished	Yes
[redacted]	2016	Test report 16-03270 on the yeasticidal surface activity of OxyDes Rapid, [redacted], [redacted]	[redacted]	16-03270-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-02-16	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		[redacted] according to EN13697	[redacted]					
[redacted]	2016	Test report 16-12047-2-2, Surface disinfection with mechanical action bactericidal efficacy [redacted] of DrySan Oxy Wipes, Ready-to-use product, following EN 16615	[redacted]	16-12047-2-2-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-08-09	Unpublished	Yes
[redacted]	2016	Test report 16-12047-2-1, Surface disinfection with mechanical action bactericidal efficacy [redacted] of DrySan Oxy Wipes, Ready-to-use product, following EN 16615	[redacted]	16-12047-2-1-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-08-09	Unpublished	Yes
[redacted]	2016	Test report 16-12047-3-1, Surface disinfection with mechanical action yeasticidal efficacy [redacted] of DrySan Oxy Wipes, Ready-to-use product, following EN 16615	[redacted]	16-12047-3-1-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-08-09	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2016	Test report 16-12047-1-1 Surface disinfection with mechanical [redacted] Bactericidal efficacy of DrySan Oxy Wipes, Ready to use product, following EN 16615	[redacted]	16-12047-1-1-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-08-09	Unpublished	Yes
[redacted]	2016	Test report 16-12047-4 surface disinfection with mechanical action bactericidal efficacy [redacted] of DrySan Oxy Wipes Ready to use product following EN 16615	[redacted]	16-12047-4-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-08-09	Unpublished	Yes
[redacted]	2015	Test Report 15-02116 On the sporicidal efficacy of [redacted] according to EN 13697	[redacted]	15-02116	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-24	Unpublished	Yes
[redacted]	2015	Test Report 15-02116 On the microbicidal efficacy of [redacted] according to EN 13697	[redacted]	15-02116	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-17	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2017	Test Report 17-05489 on the microbiocidal surface activity of Maxx Oxy Des 2 and Kitchen Pro Oxy Des Super Conc. According to EN 13697:2015	[redacted]	17-05489	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-07	Unpublished	Yes
[redacted]	2017	Test Report 16-20134 surface disinfection with mechanical action Bactericidal efficacy [redacted] of Maxx Oxy Des 2 following EN 16615, [redacted].	[redacted]	16-20134	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-27	Unpublished	Yes
[redacted]	2018	Test report 18-04555-1 On the yeasticidal efficacy of Manosan Oxy ([redacted]) following EN 13624	[redacted]	18-04555-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-03-06	Unpublished	Yes
[redacted]	2018	Test report 18-04555-2 On the yeasticidal efficacy of Manosan Oxy ([redacted]) following EN 13624	[redacted]	18-04555-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-03-06	Unpublished	Yes
[redacted]	2018	Test report 18-04555-3 On the bactericidal efficacy of Manosan Oxy	[redacted]	18-04555-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2018-03-09	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		([redacted]) following EN 13727	[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2018	Test report 18-04555-4 On the bactericidal efficacy of Manosan Oxy ([redacted]) following EN 13727	[redacted]	18-04555-4	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-03-09	Unpublished	Yes
[redacted]	2016	Test report 16-19110 On the bactericidal activity of OxyFoam Plus under clean conditions according to EN 1656, according to EN 1500	[redacted]	16-19110-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-12-15	Unpublished	Yes
[redacted]	2018	Test report 18-04552-1 On the bactericidal efficacy of OxyDes Rapid following EN 1276	[redacted]	18-04552-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-03-09	Unpublished	Yes
[redacted]	2018	Test report 18-04552-6 On the yeasticidal efficacy of OxyDes Rapid following EN 1650	[redacted]	18-04552-6	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-03-06	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2018	Test report 18-04552-12On the bactericidal efficacy of OxyDes Rapid following EN 1276	[redacted]	18-04552-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-03-09	Unpublished	Yes
[redacted]	2018	Test report 18-04552-3 On the yeasticidal efficacy of OxyDes Rapid following EN 1650	[redacted]	18-04552-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-03-06	Unpublished	Yes
[redacted]	2018	Test report 18-04552-4 On the yeasticidal efficacy of OxyDes Rapid following EN 1650	[redacted]	18-04552-4	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-03-06	Unpublished	Yes
[redacted]	2018	Test report 18-04552-5 On the yeasticidal efficacy of OxyDes Rapid following EN 1650	[redacted]	18-04552-5	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-03-06	Unpublished	Yes
[redacted]	2016	Test report 16-13198-18 on the bactericidal activity [redacted] of	[redacted]	16-13198-18-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2016-10-07	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		[redacted] Oxypak D following EN 1276	[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2016	Test Report 16-13198-19 on the bactericidal activity [redacted] of [redacted] Oxypak D following EN 1276	[redacted]	16-13198-19-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-06	Unpublished	Yes
[redacted]	2010	Test Report 10-05281 on the fungicidal efficacy of [redacted] oxypak D following EN 1650	[redacted]	10-05281	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2010-03-29	Unpublished	Yes
[redacted]	2016	Test Report 16-13198-15 on the yeasticidal activity [redacted] of [redacted] Oxypak D following EN 1650	[redacted]	16-13198-15	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-05	Unpublished	Yes
[redacted]	2016	Test Report 16-13198-16 on the yeasticidal activity [redacted] of [redacted] Oxypak D following EN 1650	[redacted]	16-13198-16	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-05	Unpublished	Yes
[redacted]	2016	Test Report 16-13198-17 on the yeasticidal activity	[redacted]	16-13198-17	ECOLAB Deutschland GmbH,	2016-10-10	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		[redacted] of [redacted] Oxypak D following EN 1650	[redacted]		Ecolab-Allee 1, 40789 Monheim am Rhein Germany			
[redacted]	2016	Test Report 16-13198-13 on the fungicidal activity [redacted] of [redacted] oxypak D following EN 1650	[redacted]	16-13198-13	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-05	Unpublished	Yes
[redacted]	2016	Test report 16-13198-14 on the fungicidal activity [redacted] of [redacted] oxypak D following EN 1650.	[redacted]	16-13198-14-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-05	Unpublished	Yes
[redacted]	2016	Test Report 16-13198-10 on the bactericidal surface activity tested against [redacted] of [redacted] Oxypak D according to EN 13697:2015.	[redacted]	16-13198-10	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-29	Unpublished	Yes
[redacted]	2016	Test Report 16-13198-11 on the bactericidal surface activity [redacted] of [redacted] Oxypak	[redacted]	16-13198-11	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein	2016-09-29	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		D according to EN 13697:2015	[redacted]		Germany			
[redacted]	2016	Test Report 16-13198-12 on the bactericidal surface activity [redacted] of [redacted] Oxypak D according to EN 13697:2015.	[redacted]	16-13198-12-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-07	Unpublished	Yes
[redacted]	2016	Test Report 16-13198-7 on the yeasticidal surface activity [redacted] of [redacted] oxypak D according to EN 13697:2015.	[redacted]	16-13198-7	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-29	Unpublished	Yes
[redacted]	2016	Test Report 16-13198-8 on the yeasticidal surface activity [redacted] of [redacted] Oxypak D according to EN 13697:2015	[redacted]	16-13198-8-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-29	Unpublished	Yes
[redacted]	2016	Test Report 16-13198-9 on the yeasticidal surface activity [redacted] of [redacted] Oxypak D according to EN 13697:2015.	[redacted]	16-13198-9-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-29	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2016	Test Report 16-13198-5 on the fungicidal surface activity [redacted] of [redacted] Oxypak D according to EN 13697:2015.	[redacted]	16-13198-5	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-28	Unpublished	Yes
[redacted]	2016	Test Report 16-13198-6 on the fungicidal surface activity [redacted] of [redacted] Oxypak D according to EN 13697:2015.	[redacted]	16-13198-6	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-29	Unpublished	Yes
[redacted]	2016	Test Report 16-16619-1 on the bactericidal efficacy of Manosan Oxy following EN 1276.	[redacted]	16-16619-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-14	Unpublished	Yes
[redacted]	2016	Test Report 16-16619-2 on the yeasticidal efficacy of Manosan Oxy following EN 1650.	[redacted]	16-16619-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-11	Unpublished	Yes
[redacted]	2016	Test Report 16-16619-3 on the microbicidal surface activity of	[redacted]	16-16619-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2016-11-14	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		Manosan Oxy according to EN 13697:2015.	[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2016	Test Report on the bactericidal efficacy of OxyFoam Plus following EN 1656	[redacted]	16-13075-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-12	Unpublished	Yes
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	2010	Test Report 10-05706 on the sporicidal surface activity of [redacted] Oxypak D according to EN 13697	[redacted]	10-05706	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2010-04-20	Unpublished	Yes
[redacted]	2016	Test Report 16-13075-4 on the yeasticidal efficacy of OxyFoam Plus following EN 1657	[redacted]	16-13075-4	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-12	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2018	Chemical-Physical Properties of OxyFoam Plus	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-02-07	Unpublished	Yes
[redacted]	2014	Certificate of analysis	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2014-09-16	Unpublished	Yes
[redacted]	2015	Stability characteristics, Stability at ambient storage conditions, Accelerated Storage stability, Cold stability.	[redacted]	RB28122015/ 01	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-09-25	Unpublished	Yes
[redacted]	2011	Stability study Hydrogen Peroxide based Cleaner Disinfectant concentrates	[redacted]	JH07072011/0 1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2011-10-14	Unpublished	Yes
[redacted]	2016	Bactericidal Activity of OxyDes Rapid in the quantitative surface test according to DIN EN	[redacted]	L15/0682.1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein	2016-01-18	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		13697:2015 (Phase 2, Step 2)	[redacted]		Germany			
[redacted]	2016	Bactericidal activity of OxyDes Rapid in the quantitative surface test according to EN 13697 (Phase 2, Step 2)	[redacted]	L15/0682.2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-01-18	Unpublished	Yes
[redacted]	2010	UNI EN 1650:2008 Quantitative suspension test for the evaluation of fungicidal activity	[redacted]	60/2010	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2010-09-08	Unpublished	Yes
[redacted]	2010	Sporicidal activity according to EN 13704:2005	[redacted]	63/2010	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2010-09-29	Unpublished	Yes
[redacted]	2010	UNI EN 13697:2001 Quantitative non-porous surface test for the evaluation of fungicidal activity	[redacted]	62/2010	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2010-12-21	Unpublished	Yes
[redacted]	2005	[redacted] Oxypak S - EN 1650 - Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas	[redacted]	02e/05-OXK	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2005-02-04	Unpublished	Yes
[redacted]	2006	[redacted] Oxypak S - EN 1276 - Quantitative suspension	[redacted]	02e/08-OXK	ECOLAB Deutschland GmbH,	2008-03-03	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas	[redacted]		Ecolab-Allee 1, 40789 Monheim am Rhein Germany			
[redacted]	2018	[redacted] smell of Incidin Oxyfoam (S), Ultrasan Floor and Cidalsan Large Area	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-02-06	Unpublished	Yes
[redacted]	2017	Maxx Oxy Des 2, [redacted]: Determination of physico-chemical properties – Oxidizing Properties of Liquids	[redacted]	CSL-16-2559.03	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-23	Unpublished	Yes
[redacted]	2017	CidalSan Large Area, [redacted]: Determination of physico-chemical properties, Viscosity via capillary viscometer	[redacted]	CSL-16-2353.02	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-20	Unpublished	Yes
[redacted]	2017	Maxx Oxy Des 2, Determination of physico-chemical properties,	[redacted]	CSL-16-2559.02	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2017-01-23	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		Viscosity via capillary viscometer	[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2017	CidalSan Large Area, [redacted]: Determination of physico-chemical properties, Flash Point	[redacted]	CSL-16-2353.01	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-20	Unpublished	Yes
[redacted]	2017	Maxx Oxy Des 2, Determination of physico-chemical properties, Flash Point	[redacted]	CSL-16-2559.01	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-23	Unpublished	Yes
[redacted]	2017	Determination of physico-chemical properties Corrosive Properties of Liquids (UN Test C.1), CidalSan Large Area, [redacted]	[redacted]	CSL-16-2353.04	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-20	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2017	Determination of physico-chemical properties Corrosive Properties of Liquids (UN Test C.1), Maxx Oxy Des 2,	[redacted]	CSL-16-2559.04	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-26	Unpublished	Yes
[redacted]	2011	Determination of hydrogen peroxide content in liquid disinfectant	[redacted]	209/2010	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2011-01-31	Unpublished	Yes
[redacted]	2015	Storage Stability and Shelf Life of Incidin OxyWipe	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-06-04	Unpublished	Yes
[redacted]	2015	Storage Stability and Shelf Life of Incidin OxyFoam	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-05-20	Unpublished	Yes
[redacted]	2015	Storage Stability and Shelf Life of Incidin OxyFoam S	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-05-20	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]					
[redacted]	2015	Storage Stability and Shelf Life of Incidin OxyWipe S	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-06-16	Unpublished	Yes
[redacted]	2016	Quantitative suspension test for the evaluation of bacterial activity of DrySan Oxy Spray in the medical area according to DIN EN 13727: 2013	[redacted]	L15/0663.4	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-01-18	Unpublished	Yes
[redacted]	2016	Quantitative suspension test for the evaluation of bacterial activity of DrySan Oxy Spray in the medical area according to DIN EN 13727: 2013	[redacted]	L15/0663.1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-01-15	Unpublished	Yes
[redacted]	2016	Quantitative Non-Porous Surface test for the evaluation of bactericidal and/or fungicidal activity of Drysan Oxy Spray in food, Industrial, Domestic and Instiutional Areas according to DIN EN 13697:2015 (Phase2, Step 2)	[redacted]	L15/0663.5	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-02-16	Unpublished	Yes
[redacted]	2016	Quantitative determination of Hydrogen Peroxide in Manosan Oxy by Means of Iodometric Titration	[redacted]	32X16003.E1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-01-18	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]					
[redacted]	2016	Quantitative determination of Hydrogen Peroxide in DrySan Oxy by Means of Iodometric Titration	[redacted]	32X16001.E1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-01-28	Unpublished	Yes
[redacted]	2016	Quantitative determination of Hydrogen Peroxide in OxyDes Rapid by Means of Iodometric Titration	[redacted]	32X16002.E1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-01-28	Unpublished	Yes
[redacted]	2017	[redacted] Oxypak D ([redacted]), Storage Stability	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-09-13	Unpublished	Yes
[redacted]	2017	Analyzing Report	[redacted]	17-08708	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-06-06	Unpublished	Yes
[redacted]	2016	Analyzing Report	[redacted]	16-02125	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2016-01-18	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2015	[redacted] Yeasticidal And Fungicidal Efficacy (4 - Field-Test)	[redacted]	A 14241-7	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-05-11	Unpublished	Yes
[redacted]	2016	Report A 16208-1, [redacted] – Bactericidal activity (EN 1276)	[redacted]	A 16208-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-10	Unpublished	Yes
[redacted]	2016	Report A 16208-2, [redacted] – Yeasticidal activity (EN 1650)	[redacted]	A 16208-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-10	Unpublished	Yes
[redacted]	2016	Report A 15285-3, Manosan Oxy Bactericidal efficacy (EN 13727)	[redacted]	A 15285-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-01-11	Unpublished	Yes
[redacted]	2016	Report A 16265, Manosan Oxy Yeasticidal efficacy (EN 13624)	[redacted]	EN 16265	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-21	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2016	Report A 16208-4 [redacted] Bactericidal activity (EN 13727)	[redacted]	A 16208-4	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-14	Unpublished	Yes
[redacted]	2016	Report A 16208-5 [redacted] Yeasticidal efficacy (EN 13727)	[redacted]	A 16208-5	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-14	Unpublished	Yes
[redacted]	2015	Report A 14239-2, [redacted] Yeasticidal and fungicidal efficacy (EN 13624)	[redacted]	A 14239-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-05-05	Unpublished	Yes
[redacted]	2015	Report A 14239-3, -[redacted]- Tuberculocidal and mycobactericidal efficacy (EN 14348)	[redacted]	A 14239-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-05-05	Unpublished	Yes
[redacted]	2015	Report A 14239-1, -[redacted] - Bactericidal efficacy (EN 13727)	[redacted]	A 14239-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-05-06	Unpublished	Yes
[redacted]	2015	Report A 15285-1, Manosan Oxy, [redacted] Hygienic handwash (EN 1499:2013)	[redacted]	A 15285-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-12-18	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2017	Report A 17053-2.2 Incidin Oxyfoam S – sample B ([redacted]) Yeasticidal activity (EN13624)	[redacted]	A 17053-2.2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-06	Unpublished	Yes
[redacted]	2017	Report A 17053-3.1 Incidin Oxyfoam S – sample C ([redacted]) Bactericidal activity (EN13727)	[redacted]	A 17053-3.1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-06	Unpublished	Yes
[redacted]	2017	Report A 17053-2.1 Incidin Oxyfoam S – sample B ([redacted]) Bactericidal activity (EN13727)	[redacted]	A 17053-2.1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-06	Unpublished	Yes
[redacted]	2017	Report A 17053-2.3 Incidin Oxyfoam S – sample B ([redacted]) Fungicidal activity (EN13727)	[redacted]	A 17053-2.3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-06	Unpublished	Yes
[redacted]	2017	Report A 17053-4.1 Incidin Oxyfoam S – sample D ([redacted]) Bactericidal activity (EN13727)	[redacted]	A 17053-4.1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-06	Unpublished	Yes
[redacted]	2017	Report A 17053-4.3 Incidin Oxyfoam S – sample D ([redacted]) Fungicidal activity (EN13624)	[redacted]	A 17053-4.3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-06	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2017	Report A 17053-4.2 Incidin Oxyfoam S – sample D ([redacted]) Yeasticidal activity (EN13624)	[redacted]	A 17053-4.2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-06	Unpublished	Yes
[redacted]	2017	Report A 17053-3.3 Incidin Oxyfoam S – sample C ([redacted]) Fungicidal activity (EN13624)	[redacted]	A 17053-3.3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-06	Unpublished	Yes
[redacted]	2017	Report A 17053-3.2 Incidin Oxyfoam S – sample C ([redacted]) Yeasticidal activity (EN13624)	[redacted]	A 17053-3.2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-06	Unpublished	Yes
[redacted]	2015	Report A 14242-2, [redacted] Yeasticidal and fungicidal efficacy (EN 13624)	[redacted]	A 14242-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-12	Unpublished	Yes
[redacted]	2017	Report A 17206-1, Klerwipe Sporicidal Enhanced Peroxide, Bactericidal efficacy (4-field-test) (EN 16615)	[redacted]	A 17206-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-09-07	Unpublished	Yes
[redacted]	2018	Report A 17486-1, Klercide Sporicidal enhanced Peroxide (Liquid) Sporicidal efficacy (EN 13704)	[redacted]	A 17486-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-03-01	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2017	Report A 17206-2, Klerwipe Sporicidal enhanced Peroxide yeasticidal & fungicidal efficacy (4-field-test) (EN 13704)	[redacted]	A 17206-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-09-07	Unpublished	Yes
[redacted]	2017	Report A 17206-3, Klerwipe Sporicidal Enhanced Peroxide sporicidal efficacy (4-field-test) (EN 16615)	[redacted]	A 17206-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-09-07	Unpublished	Yes
[redacted]	2015	Report A 14242-1, [redacted] Bactericidal efficacy (EN 13727)	[redacted]	A 14242-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-12	Unpublished	Yes
[redacted]	2015	Report A 14242-2, [redacted] Yeasticidal and fungicidal efficacy (EN 13727)	[redacted]	A 14242-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-12	Unpublished	Yes
[redacted]	2014	Report A 14242-4, Product formulation [redacted] Sporicidal activity	[redacted]	A 14242-4	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2014-12-22	Unpublished	Yes
[redacted]	2015	Report A 15189-2, Incidin OxyFoam S, Sporicidal efficacy (4-field test) [redacted]	[redacted]	A 15189-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-12-07	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2015	Report A 14241-1, [redacted] Bactericidal efficacy (EN 13727)	[redacted]	A 14241-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-12-07	Unpublished	Yes
[redacted]	2015	Report A 14241-2, [redacted] Yeasticidal and fungicidal efficacy (EN 13624)	[redacted]	A 14241-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-04-07	Unpublished	Yes
[redacted]	2015	Report A 14241-5, [redacted] Bactericidal and yeasticidal efficacy (DGHM)	[redacted]	A 14241-5	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-04-07	Unpublished	Yes
[redacted]	2015	Report A 15190-2, Incidin OxyWipes S, Sporicidal efficacy (4-field-test) [redacted]	[redacted]	A 15190-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-11-18	Unpublished	Yes
[redacted]	2015	Report a 14241-4, product formulation [redacted], sporicidal efficacy (EN 13704)	[redacted]	A 14241-4	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-04-07	Unpublished	Yes
[redacted]	2015	Report A 14242-7 [redacted] Yeasticidal and fungicidal efficacy (4 field test)	[redacted]	A 14242-7	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-04-10	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2016	Report A 16029, Incidin OxyWipe S, formulations with [redacted] and [redacted] sporicidal efficacy (EN 13704)	[redacted]	A 16029	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-05-17	Unpublished	Yes
[redacted]	2015	Report A 14241-8, [redacted], tuberculocidal and mycobactericidal efficacy (4-field-test)	[redacted]	A 14241-8	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-05-12	Unpublished	Yes
[redacted]	2015	Inciidin oxyfoam S, sporicidal efficacy (4-fleld-test) [redacted]	[redacted]	A 15189-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-11-17	Unpublished	Yes
[redacted]	2015	Manosan Oxy - Hygienic Handwash EN 1499:2013 ([redacted])	[redacted]	A -15285-2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-12-18	Unpublished	Yes
[redacted]	2015	Report A 14241-10, [redacted], Sporicidal efficacy, 4-field-test – [redacted]	[redacted]	A 14241-10	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-05-11	Unpublished	Yes
[redacted]	2015	Report A 14241-6, [redacted], Bactericidal efficacy, 4-field-test	[redacted]	A 14241-6	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-05-12	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2016	Report A 16208-3 XX [redacted] Bactericidal and Yeasticidal activity (EN 13697)	[redacted]	A 16208-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-19	Unpublished	Yes
[redacted]	2015	Determination of bactericidal (EN 1276) activity of the product [redacted] ([redacted])	[redacted]	D124-1/2015	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-11-17	Unpublished	Yes
[redacted]	2015	Determination of fungicidal (EN 1650) activity of the product [redacted] ([redacted])	[redacted]	D124-2/2015	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-11-17	Unpublished	Yes
[redacted]	2015	Determination of sporicidal (EN 13704) activity of the product [redacted] ([redacted])	[redacted]	D124-4/2015	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-11-17	Unpublished	Yes
[redacted]	2016	Determination of bactericidal (EN 13697) and fungicidal (EN 13697) activity of the product Kercide Sporicidal Low Residue Peroxide	[redacted]	D72-3/2016	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2013-07-19	Unpublished	Yes
[redacted]	2008	[redacted] the virucidal efficacy of [redacted] tested acc. To EN 14476	[redacted]	08.00441	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein	2008-07-23	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]		Germany			
[redacted]	2018	Test Report 16-04225-1 Virucidal activity of Klercide Sporicidal Low Residue Peroxide tested against Murine Norovirus, S99, strain Berlin/06/DE According to EN 14476	[redacted]	16-04225-1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-03-14	Unpublished	Yes
[redacted]	2017	Measurement on the exposure of [redacted]	[redacted]	17-02613	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-09-06	Unpublished	Yes
[redacted]	2017	Oasis Pro Oxy Des, Maxx Oxy Des 2 Storage stability	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-06	Unpublished	Yes
[redacted]	2016	Quantitative suspension test for the evaluation of the sporicidal activity of the [redacted] according to NF EN 13704	[redacted]	34670	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-25	Unpublished	Yes
[redacted]	2016	Quantitative Suspension Test for evaluation of Sporicidal activity of the	[redacted]	A 16 184 13704	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2016-07-15	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		[redacted] according to NF EN 13704	[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2016	Quantitative Suspension Test for evaluation of Sporicidal activity of the [redacted] according to NF EN 13704	[redacted]	A 16 183 13704	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-25	Unpublished	Yes
[redacted]	2016	Antiseptics and chemical disinfectants. Quantitative carrier test for the evaluation of bacterial activity of the [redacted]. Test method without mechanical action and requirements according to the NF EN 13697.	[redacted]	A 16 105 13697	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-07-15	Unpublished	Yes
[redacted]	2016	Antiseptics and chemical disinfectants. Quantitative carrier test for the evaluation of fungicidal activity of the [redacted]. Test method without mechanical action and requirements according to the NF EN 13697.	[redacted]	A 16 87 13697	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-05-24	Unpublished	Yes
[redacted]	2016	Chemical antiseptics and disinfectants. Quantitative suspension test for the evaluation of sporicidal activity of the [redacted]. Test method and	[redacted]	A 16 183 13697	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-25	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		prescriptions according to the NF EN 13704.						
[redacted]	2015	Interim Report, Storage Stability Report of Klercide Sporicidal enhanced Peroxide in Ecolab Packaging items	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-10-21	Unpublished	Yes
[redacted]	2016	Storage Stability Report Klerwipe Sporicidal Low Residue Peroxide	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-09-29	Unpublished	Yes
[redacted]	2015	Interim Report, Storage Stability Report of Klerwipe Sporicidal enhanced Peroxide	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-12-07	Unpublished	Yes
[redacted]	2009	Report A 09034-1-3, CidalSan Large Area Bactericidal and Yeasticidal activity	[redacted]	A 09034-1-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2009-06-03	Unpublished	Yes
[redacted]	2009	Report A 09034-2-3, CidalSan Large Area Bactericidal activity – additional test organisms	[redacted]	A 09034-2-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2009-06-03	Unpublished	Yes
[redacted]	2011	Report A 11116-6, [redacted]	[redacted]	A 11116-6	ECOLAB Deutschland GmbH,	2011-05-10	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		[redacted], yeasticidal and fungicidal activity, according to EN 13697	[redacted]		Ecolab-Allee 1, 40789 Monheim am Rhein Germany			
[redacted]	2009	Report A 08261-3-3 CidalSan Large Area	[redacted]	A 08261-3-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2009-07-13	Unpublished	Yes
[redacted]	2017	Measurement on the exposure of [redacted]	[redacted]	17-02613	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-09-06	Unpublished	Yes
[redacted]	2015	Quantitative non-porous surface test for the evaluation of bactericidal and/or fungicidal activity of chemical disnfectants used in food, industrial, domestic and institutional areas - EN 13697	[redacted]	W-265081e-15-Sl/to	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-12-15	Unpublished	Yes
[redacted]	2016	Accelerated storage stability of [redacted] Rev.7	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-12-03	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2016	Accelerated storage stability of [redacted] Oxypak D [redacted] Rev.3	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-01-29	Unpublished	Yes
[redacted]	2018	Statement concerning smell of Oxypak D, Oxypak S, Oxypak S10, Manosan Oxy, Manosan OxyFoam, OxyFoam Plus, MEPA Foampro D, OxyDes Rapid, OxyDes Maxi Wipes	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-01-24	Unpublished	Yes
[redacted]	2018	Determination of [redacted]	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-05-23	Unpublished	Yes
[redacted]	2017	Liquid chromatographic determination of [redacted] in OxyDes Rapid	[redacted]	17-05162-3	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-07-01	Unpublished	Yes
[redacted]	2012	Stability characteristics, Stability at ambient storage conditions, Accelerated Storage stability, Reactivity towards container	[redacted]	JH15052012/01	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2012-05-09	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		materials, functional stability.	[redacted]					
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	2017	Evaluation of the effectiveness of Incidin	[redacted]	L17/0458fMV.1	ECOLAB Deutschland GmbH,	2017-04-11	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		OxyWipe, modified vaccinia virus Ankara (MVA), following EN 14476:2013 (clean conditions)	[redacted]		Ecolab-Allee 1, 40789 Monheim am Rhein Germany			
[redacted]	2017	Evaluation of the effectiveness of Incidin OxyWipe, modified vaccinia virus Ankara (MVA), following EN 14476:2013 (dirty conditions)	[redacted]	L17/0458fMV.2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-11	Unpublished	Yes
[redacted]	2017	Evaluation of the effectiveness of Incidin OxyFoam S against vaccinia virus strain Elstree, following DVV/RKI	[redacted]	A08ML639BV	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-11	Unpublished	Yes
[redacted]	2017	Evaluation of the effectiveness of Incidin Oxyfoam S modified vaccinia virus Ankara (MVA) based on EN 14476:2013 + A1:2015	[redacted]	L17/0097aMV.1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-05-16	Unpublished	Yes
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		[redacted]	[redacted]					
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	2008	Evaluation of the effectiveness of Incidin Oxyfoam S modified vaccinia virus Ankara (MVA) based on EN 14476:2013 + A1:2015 (dirty conditions)	[redacted]	L17/0097aMV.2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-05-16	Unpublished	Yes
[redacted]	2017	Evaluation of the effectiveness of Incidin Oxyfoam S human totavirus strain Wa according to DVV/RKI	[redacted]	L17/0620aR.1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-11-27	Unpublished	Yes
[redacted]	2015	Evaluation of the effectiveness of [redacted]. Human rotavirus strain Wa, following EN 14476:2013, quantitative suspension test for the evaluation of virucidal activity of chemical disinfectants and	[redacted]	E15L0308bcR	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-05-21	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		antiseptics used in human medicine						
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
	2009	Evaluation of the effectiveness of CidalSan Large Area agains vaccinia virus strain Elstree. Test method according to the guidline of DVV and RKI.		A09ML733V	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2009-04-24	Unpublished	Yes
	2008	Evaluation of the effectiveness of Incidin OxyFoam S agains Bovine Viral Diarrhea Virus (BVDV). Test method according to the guidline of DVV and RKI.		A08ML639BB	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2008-10-10	Unpublished	Yes
	2012	Evaluation of the effectiveness of , Adenovirus type 5, prEN 14476:2011 (clean conditions)		A12ML1367-2/1448A	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2012-10-26	Unpublished	Yes
	2015	Evaluation of the effectiveness of . Adenovirus type 5,		E14L0308adA	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2015-03-18	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		following EN 14476:2013, quantitative suspension test for the evaluation of virucidal activity of chemical disinfectants and antiseptics used in human medicine	[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2012	Evaluation of the effectiveness of [redacted], Murine norovirus, prEN 14476:2011 (clean conditions)	[redacted]	A12ML1448M	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2012-10-26	Unpublished	Yes
[redacted]	2012	Evaluation of the effectiveness of [redacted], poliovirus type 1 strain LSc-2ab, prEN 14476:2011 (clean conditions)	[redacted]	A12ML1448Po	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2012-10-26	Unpublished	Yes
[redacted]	2015	Evaluation of the effectiveness of [redacted]. Murine norovirus, following EN 14476:2013 (dirty conditions), quantitative suspension test for the evaluation of virucidal activity of chemical disinfectants and antiseptics used in human medicine	[redacted]	E14L0308adM	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-27	Unpublished	Yes
[redacted]	2015	Evaluation of the effectiveness of [redacted] Poliovirus type 1 strain LSc-2ab, following EN 14476:2013, quantitative suspension	[redacted]	E14L0308aPo	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-04-02	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		test for the evaluation of virucidal activity of chemical disinfectants and antiseptics used in human medicine						
	2015	Evaluation of the effectiveness of . polyoma virus SV40 following DVV/RKI method		E14L0308aS	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-04-09	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]					
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	2015	Evaluation of the effectiveness of [redacted], poliovirus type 1 strain LSc-2ab, EN 14476:2013, quantitative suspension test for the evaluation of virucidal activity of chemical disinfectants and antiseptics used in human medicine	[redacted]	E14L0308cPo	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-05	Unpublished	Yes
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
	2015	Evaluation of the effectiveness of , murine norovirus, EN 14476:2013 (clean conditions), quantitative suspension test for the evaluation of virucidal activity of chemical disinfectants and antiseptics used in human medicine		E14/15L0308/ 0120ccM	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-04-13	Unpublished	Yes
	2015	Evaluation of the effectiveness of , murine norovirus, EN 14476:2013 (dirty conditions), quantitative suspension test for the evaluation of virucidal activity of chemical disinfectants and antiseptics used in human medicine		E14/15L0308/ 0120cdM	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-04-13	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]		[redacted]	[redacted]		[redacted]			
[redacted]	2009	Evaluation of the effectiveness of CidalSan Large Area against Bovine Viral Diarrhea Virus (BVDV)	[redacted]	A09ML733B	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2009-03-17	Unpublished	Yes
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	2015	[redacted], EN 14348, Mycobactericidal activity – Phase 2, Step 1	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-17	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – bactericidal and yeasticidal activity (phase	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2015-03-11	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		2, step 2) – 1. Test run inclusive validation	[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – bactericidal and yeasticidal activity (phase 2, step 2) – 2. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-16	Unpublished	Yes
[redacted]	2015	prEN 16615 (2014), 4-field-test – bactericidal and yeasticidal activity (phase 2, step 2) – 3. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-16	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – bactericaidal and yeasticidal activity (phase 2, step 1) – 1. Test run inclusive validation	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-13	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – fungicidal activity (phase 2, step 2) – 1. Test run inclusive validation	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-18	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – mycobactericidal activity (phase 2, step 2) – 1. Test run inclusive validation	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-24	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – mycobactericidal activity	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2015-03-24	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		(phase 2, step 2) – 2. Test run	[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – mycobactericidal activity (phase 2, step 2) – 3. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-25	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – fungicidal activity (phase 2, step 2) – 1. Test run inclusive validation	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-18	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – fungicidal activity (phase 2, step 2) – 2. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-25	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – fungicidal activity (phase 2, step 2) – 3. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-25	Unpublished	Yes
[redacted]	2015	[redacted], EN 14348, Mycobactericidal activity – phase 2, step 1.	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-17	Unpublished	Yes
[redacted]	2015	EN 13704, Quantitative suspension test –	[redacted]	-	ECOLAB Deutschland GmbH,	2015-04-30	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		sporicidal activity (phase 2, step 1)	[redacted]		Ecolab-Allee 1, 40789 Monheim am Rhein Germany			
[redacted]	2015	[redacted] EN 13624, Quantitative suspension test – fungicidal activity (phase 2, step 1)	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-03	Unpublished	Yes
[redacted]	2015	[redacted], EN 13727, Quantitative suspension test – bactericidal activity (phase 2, step 1)	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-25	Unpublished	Yes
[redacted]	2015	[redacted], prEN16615 (2014), 4-field-test – mycobactericidal activity (Phase 2, step 2) – 1. Test run inclusive validatin	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-04-07	Unpublished	Yes
[redacted]	2015	Incidin Oxyfoam S, DIN EN 13704 (May 2002) Sporicidal activity – phase 2, step 1.	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-27	Unpublished	Yes
[redacted]	2015	Incidin Oxyfoam S, DIN EN 13704 (2002) Sporicidal activity – phase 2, step 1.	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-26	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2015	DIN EN 13704 (2002) Sporicidal activity – phase 2, step 1.	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-26	Unpublished	Yes
[redacted]	2015	[redacted], EN 13624, Quantitative suspension test – fungicidal activity (phase 2, step 1)	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-03	Unpublished	Yes
[redacted]	2015	[redacted], 4-field-test – fungicidal activity (Phase 2, step 2) – 1.test run inclusive validation	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-17	Unpublished	Yes
[redacted]	2015	[redacted], 4-field-test – fungicidal activity (Phase 2, step 2) – 2.test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-17	Unpublished	Yes
[redacted]	2015	[redacted], 4-field-test – fungicidal activity (Phase 2, step 2) – 3.test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-25	Unpublished	Yes
[redacted]	2015	[redacted], EN 14348, Mycobactericidal activity - phase 2, step 1	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-17	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2015	[redacted], Mycobactericidal activity Phase 2, step 1	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-17	Unpublished	Yes
[redacted]	2015	[redacted], EN 13727, Quantitative suspension test – bactericidal activity (phase 2, step 1)	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-25	Unpublished	Yes
[redacted]	2015	[redacted], EN 13624, Quantitative suspension test – fungicidal activity (phase 2, step 1)	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-03	Unpublished	Yes
[redacted]	2015	[redacted], EN 13727, Quantitative suspension test – bactericidal activity (phase 2, step 1)	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-25	Unpublished	Yes
[redacted]	2015	[redacted], EN 13727, Quantitative suspension test – bactericidal activity (phase 2, step 1)	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-25	Unpublished	Yes
[redacted]	2015	[redacted], EN 13624, Quantitative suspension test – fungicidal activity (phase 2, step 1)	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-03	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – fungicidal activity (phase 2, step 2) – 1. Test run inclusive validation	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-18	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – fungicidal activity (phase 2, step 2) – 1. Test run inclusive validation (with extra time)	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-18	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – fungicidal activity (phase 2, step 2) – 2. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-25	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – fungicidal activity (phase 2, step 2) – 3. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-25	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – mycobactericidal activity (phase 2, step 2) – 1. Test run inclusive validation	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-24	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – mycobactericidal activity (phase 2, step 2) – 2. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-24	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – mycobactericidal activity (phase 2, step 2) – 1. Test run inclusive validation	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-24	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – mycobactericidal activity (phase 2, step 2) – 2. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-24	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – mycobactericidal activity (phase 2, step 2) – 3. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-25	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – bactericidal and yeasticidal activity (phase 2, step 2) – 2. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-16	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – bactericidal and yeasticidal activity (phase 2, step 2) – 1. Test run inclusive validation	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-11	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – bactericidal and yeasticidal activity (phase 2, step 2) – 1. Test run inclusive validation	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-11	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – bactericidal and yeasticidal activity (phase 2, step 2) – 2. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-16	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – bactericidal and yeasticidal activity (phase 2, step 2) – 3. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-16	Unpublished	Yes
[redacted]	2015	[redacted], prEN 16615 (2014), 4-field-test – bactericidal and yeasticidal activity (phase 2, step 2) – 3. Test run	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-03-16	Unpublished	Yes
[redacted]	2015	DIN EN 13704 (2002) Quantitative suspension test for the evaluation of sporicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas (phase 2, step 1)	[redacted]	SN 131871.1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2015-02-26	Unpublished	Yes
[redacted]	2016	Manosan Oxy, [redacted]: Classification of Oxidizing Liquids	[redacted]	HR02PR	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-12-13	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2016	Manosan Oxy, [redacted]: Determination of Low Temperature Stability	[redacted]	BQ32NT	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-12-20	Unpublished	Yes
[redacted]	2016	DrySan Oxy, [redacted]: Determination of Low Temperature Stability	[redacted]	NJ51MN	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-10	Unpublished	Yes
[redacted]	2016	[redacted]oxypak D, [redacted]: Determination of Low Temperature Stability	[redacted]	CS22KM	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-17	Unpublished	Yes
[redacted]	2017	Incidin OxyFoam, [redacted]: Determination of Low Temperature Stability	[redacted]	YR45WG	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-10	Unpublished	Yes
[redacted]	2017	Incidin OxyFoam S, [redacted]: Determination of Low Temperature Stability	[redacted]	RH01CH	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2017-03-31	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2016	OxyDes Rapid, [redacted]: Determination of Low Temperature Stability	[redacted]	MG86LH	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-10	Unpublished	Yes
[redacted]	2017	Incidin OxyWipes S, [redacted]: Analytical Method Validation	[redacted]	FG98JD	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-25	Unpublished	Yes
[redacted]	2016	OxyDes Rapid, [redacted]: Classification of Oxidizing Liquids	[redacted]	DQ37FS	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-30	Unpublished	Yes
[redacted]	2017	Klercide Sporicidal Low Residue Peroxide, [redacted]: Determination of Surface Tension	[redacted]	WR60PT	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-03-16	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2017	[redacted] Oxypak D, [redacted]: Determination of Surface Tension	[redacted]	JB52KQ	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-04	Unpublished	Yes
[redacted]	2016	Manosan Oxy, [redacted]: Determination of Surface Tension	[redacted]	HQ74WG	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-10	Unpublished	Yes
[redacted]	2016	DrySan Oxy, [redacted]: Determination of Surface Tension	[redacted]	GL69PL	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-22	Unpublished	Yes
[redacted]	2017	Incidin OxyFoam, [redacted]: Determination of Surface Tension	[redacted]	XM29DH	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-26	Unpublished	Yes
[redacted]	2017	Incidin OxyFoam S, [redacted]: Determination of Surface Tension	[redacted]	QK76FP	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2017-01-24	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2016	OxyDes Rapid, [redacted]: Determination of Surface Tension	[redacted]	JV12TG	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-11-17	Unpublished	Yes
[redacted]	2017	Klercide Sporicidal Low Residue Peroxide, [redacted]: determination of viscosity	[redacted]	LL49FS	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-03-10	Unpublished	Yes
[redacted]	2016	[redacted] Oxypak D, [redacted]: Determination of Viscosity	[redacted]	HC40SY	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-17	Unpublished	Yes
[redacted]	2016	Manosan Oxy, [redacted]: Determination of Viscosity	[redacted]	HH87SK	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-10	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2017	DrySan Oxy, [redacted]: Determination of Viscosity	[redacted]	YT33LW	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-02D-21	Unpublished	Yes
[redacted]	2016	Incidin OxyFoam, [redacted]: Determination of Viscosity	[redacted]	DT35CN	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-12-20	Unpublished	Yes
[redacted]	2017	Incidin OxyFoam S, [redacted]: Determination of Viscosity	[redacted]	MH38QN	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-26	Unpublished	Yes
[redacted]	2016	OxyDes Rapid, [redacted]: Determination of Viscosity	[redacted]	XG93XL	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-10-14	Unpublished	Yes
[redacted]	2016	DrySan Oxy Wipes, [redacted]: Determination of Flash Point	[redacted]	KP02KW	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2016-11-10	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2017	Incidin OxyFoam, [redacted]: Determination of Flash Point	[redacted]	DJ85XW	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-20	Unpublished	Yes
[redacted]	2017	Incidin OxyFoam S, [redacted]: Determination of Flash Point	[redacted]	NG87PN	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-04	Unpublished	Yes
[redacted]	2017	Incidin OxyWipes S, [redacted]: Determination of Flash Point	[redacted]	MB10BG	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-25	Unpublished	Yes
[redacted]	2011	[redacted], [redacted]: Determination of Low temperature Stability and Oxidising Properties	[redacted]	41004003	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2011-09-02	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2016	[redacted] Oxypak D, [redacted]: Classification of Oxidising Liquids	[redacted]	RY60HG	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-12-01	Unpublished	Yes
[redacted]	2016	DrySan Oxy, [redacted]: Classification of Oxidising Liquids	[redacted]	WC13BV	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-12-13	Unpublished	Yes
[redacted]	2017	Klercide sporicidal Low Residue Peroxide, [redacted]: Analytical Method Validation	[redacted]	XX35WG	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-25	Unpublished	Yes
[redacted]	2017	[redacted] Oxypak D, [redacted]: Analytical Method Validation	[redacted]	JV57SL	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-26	Unpublished	Yes
[redacted]	2016	Incidin OxyFoam S, [redacted]: Analytical Method Validation	[redacted]	BF51VJ	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2016-03-17	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2017	OxyDes Rapid [redacted]: Classification of Corrosivity to Metals	[redacted]	GN81SM	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-24	Unpublished	Yes
[redacted]	2016	Incidin OxyFoam S, [redacted]: Classification of Corrosivity to Metals	[redacted]	FH65YT	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-03-18	Unpublished	Yes
[redacted]	2017	DrySan Oxy, [redacted]: Classification of Corrosivity to Metals	[redacted]	FV63WT	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-24	Unpublished	Yes
[redacted]	2017	Manosan Oxy, [redacted]: Classification of Corrosivity to Metals	[redacted]	CF52WG	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-01-24	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2017	[redacted] Oxypak D, [redacted]: Classification of Corrosivity to Metals	[redacted]	NN52YW	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-04-25	Unpublished	Yes
[redacted]	2017	Klercide Sporicidal Low Residue Peroxide, [redacted]: Classification of Corrosivity to Metals	[redacted]	ML22NC	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-05-02	Unpublished	Yes
[redacted]	2016	DrySan Oxy Wipes, [redacted]: Determination of Discharge Rate and Clogging	[redacted]	JC75NM	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-11-14	Unpublished	Yes
[redacted]	2017	Incidin OxyFoam, [redacted]: Determination of Discharge Rate and Clogging	[redacted]	KL49GB	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2017-03-30	Unpublished	Yes
[redacted]	2017	Incidin OxyFoam S, [redacted]: Determination of	[redacted]	JJ11KB	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2017-03-30	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		Discharge Rate and Clogging	[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2019	OxyDes Rapid, [redacted]: Determination of Discharge Rate, Clogging and Spray Diameter	[redacted]	KK50YX	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-12	Unpublished	Yes
[redacted]	2019	Klercide Sporicidal Low Residue Peroxide, [redacted]: Determination of Discharge Rate, Clogging and Spray Diameter	[redacted]	WL77DB	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-12	Unpublished	Yes
[redacted]	2019	CidalSan Large Area, [redacted], 2-Year Storage Stability Test	[redacted]	161107ED/ CLR17436	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-15	Unpublished	Yes
[redacted]	2019	CidalSan Large Area, [redacted], 2-Year Storage Stability Test	[redacted]	161107ED / CLR17437	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-15	Unpublished	Yes
[redacted]	2019	DrySan Oxy Wipes, [redacted]: Determination of Long-Term Storage Stability	[redacted]	NV27TY	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2019-02-08	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2019	DrySan Oxy Wipes, [redacted]: Determination of Long-Term Storage Stability	[redacted]	VF49SP	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-08	Unpublished	Yes
[redacted]	2019	DrySan Oxy, [redacted]: Determination of Long-Term Storage Stability	[redacted]	BP60CP	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-01-11	Unpublished	Yes
[redacted]	2019	DrySan Oxy, [redacted]: Determination of Long-Term Storage Stability	[redacted]	KH75LF	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-01-09	Unpublished	Yes
[redacted]	2019	Incidin OxyFoam S, [redacted]: Determination of Long-Term Storage Stability	[redacted]	KL58LX	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-20	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2019	Incidin OxyFoam S, [redacted]: Determination of Long-Term Storage Stability	[redacted]	QH74HN	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-21	Unpublished	Yes
[redacted]	2019	Incidin OxyFoam, [redacted]: Determination of Long-Term Storage Stability	[redacted]	BL62KN	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-21	Unpublished	Yes
[redacted]	2019	Incidin OxyFoam, [redacted]: Determination of Long-Term Storage Stability	[redacted]	PC92QF	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-15	Unpublished	Yes
[redacted]	2019	Incidin OxyWipe S, [redacted]: Determination of Long-Term Storage Stability	[redacted]	DD01JQ	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-01	Unpublished	Yes
[redacted]	2019	Incidin OxyWipe S, [redacted]: Determination of Long-Term Storage Stability	[redacted]	MX78BM	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2019-02-20	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2019	Klercide Sporicidal Low Residue Peroxide, [redacted]: Determination of Long-Term Storage Stability	[redacted]	BY76TB	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-07	Unpublished	Yes
[redacted]	2019	Klercide Sporicidal Low Residue Peroxide, [redacted]: Determination of Long-Term Storage Stability	[redacted]	RN20RP	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-19	Unpublished	Yes
[redacted]	2019	Manosan Oxy, [redacted]: Determination of Long-Term Storage Stability	[redacted]	CB49NC	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-08	Unpublished	Yes
[redacted]	2019	Manosan Oxy, [redacted]: Determination of Long-Term Storage Stability	[redacted]	TN31DW	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-01-30	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2019	Maxx Oxy Des 2, [redacted], 2-Year Storage Stability Test	[redacted]	161129EB / CLR17481	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-19	Unpublished	Yes
[redacted]	2019	Maxx Oxy Des 2, [redacted], 2-Year Storage Stability Test	[redacted]	161129EB / CLR17482	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-19	Unpublished	Yes
[redacted]	2019	OxyDes Maxi Wipes, [redacted]: Determination of Long-Term Storage Stability	[redacted]	NT57GK	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-01	Unpublished	Yes
[redacted]	2019	OxyDes Maxi Wipes, [redacted]: Determination of Long-Term Storage Stability	[redacted]	SG84WN	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-01-16	Unpublished	Yes
[redacted]	2019	OxyDes Rapid, [redacted]: Determination of Long-Term Storage Stability	[redacted]	GF17VF	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-01-15	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
[redacted]	2019	OxyDes Rapid, [redacted]: Determination of Long-Term Storage Stability	[redacted]	HG33YV	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-01-15	Unpublished	Yes
[redacted]	2019	[redacted] okypak D, [redacted], Batch [redacted]: Long-term storage stability summary	[redacted]	NH92WX	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	-	Unpublished	Yes
[redacted]	2019	[redacted] okypak D, [redacted], Batch [redacted]: Long-term storage stability summary	[redacted]	VP24QW	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	-	Unpublished	Yes
[redacted]	2019	Determination of [redacted]	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-14	Unpublished	Yes
[redacted]	2019	Determination of [redacted]	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein	2019-03-21	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
					Germany			
	2018	Determination of		-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-05-23	Unpublished	Yes
	2019	Determination of		-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-02-25	Unpublished	Yes
	2019	Non-analyte interference testing for Manosan Oxy, DrySan Oxy, OxyDes Rapid.		-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-21	Unpublished	Yes
	2019	Non-analyte interference testing for Incidin OxyFoam S, Incidin OxyFoam, CidalSan Large Area blank formulations		-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-20	Unpublished	Yes
	2019	Non-analyte interference testing for Maxx Oxy Des 2, KitchenPro Oxy Des		-	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2019-03-21	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		Concentrate blank formulations	[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2016	OxyDes Maxi Wipes [redacted]: Analytical Method Validation	[redacted]	DL73VV	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-08-15	Unpublished	Yes
[redacted]	2016	DrySan Oxy Wipes [redacted]: Analytical Method Validation	[redacted]	NR21SH	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2016-08-15	Unpublished	Yes
[redacted]	2019	-	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-05	Unpublished	Yes
[redacted]	2019	-	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-26	Unpublished	Yes
[redacted]	2019	Quantitative suspension test for the evaluation of bactericidal activity of [redacted]Oxypak D in Food, Industrial, Domestic and	[redacted]	L18/0910.1	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein	2019-01-31	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		Institutional Areas (DIN EN 1276 Ber 1:2010; Phase 2, Step 1)	[redacted]		Germany			
[redacted]	2019	Quantitative Non-Porous Surface Test for evaluation of bactericidal and/or fungicidal activity of [redacted]Oxypak D in Food, Industrial, Domestic and Institutional Areas (DIN EN 13697:2015; Phase 2, Step 2)	[redacted]	L18/0910.2	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-06	Unpublished	Yes
[redacted]	2018	Test report 18-11078, Surface Disinfection with mechanical action, Microbiocidal efficacy of DrySan Oxi Wipes ([redacted]), following EN16615	[redacted]	18-11078	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-07-20	Unpublished	Yes
[redacted]	2015	Report A18422, Incidin OxyWipe S ([redacted], storage sample) Sporicidal efficacy (EN 13704)	[redacted]	A18422	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-09-19	Unpublished	Yes
[redacted]	2018	[redacted]); Quantitative suspension test – bactericidal activity (pahse 2, step 1), dirty conditions	[redacted]	2018-2370	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-11-13	Unpublished	Yes
[redacted]	2018	Formula [redacted]);	[redacted]	2018-2372	ECOLAB Deutschland GmbH,	2018-11-13	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
		Quantitative suspension test – yeasticidal activity (pahse 2, step 1), dirty conditions	[redacted]		Ecolab-Allee 1, 40789 Monheim am Rhein Germany			
[redacted]	2018	Formula [redacted]; Quantitative suspension test – yeasticidal activity (pahse 2, step 1), dirty conditions	[redacted]	2018-2374	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-11-13	Unpublished	Yes
[redacted]	2018	Formula [redacted] in combination with a standardized wipe material; fungicidal activity (pahse 2, step 2), dirty conditions	[redacted]	2018-2375	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2018-11-14	Unpublished	Yes
[redacted]	-	Use of hydrogen peroxide [redacted]	[redacted]	-	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	-	Unpublished	Yes
[redacted]	2013	[redacted], Measurement of Airborne Hydrogen Peroxide [redacted]	[redacted]	RB181213/02	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2013-12-18	Unpublished	Yes
[redacted]	2019	[redacted] – H2O2 concentration in air [redacted]	[redacted]	19316-01	ECOLAB Deutschland GmbH, Ecolab-Allee 1,	2019-03-17	Unpublished	Yes

Author	Year	Title	Testing laboratory	Report no.	Legal entity Owner	Report date	Published/ Unpublished	Data Protection
			[redacted]		40789 Monheim am Rhein Germany			
[redacted]	2019	[redacted]	[redacted]	19316-001	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-17	Unpublished	Yes
[redacted]	2019	[redacted] 2O2 concentration in air [redacted]	[redacted]	19316-002	ECOLAB Deutschland GmbH, Ecolab-Allee 1, 40789 Monheim am Rhein Germany	2019-03-17	Unpublished	Yes

3.2 Output tables from exposure assessment tools


HHRA_F&B_AGRI_PT1_ECOLAB_14001-0


HHRA_F&B_AGRI_PT3_ECOLAB_14001-0


HHRA_F&B_IND_PT4_ECOLAB_14001-00


HHRA_HC-IP_PT2_ECOLAB_14001-002_E


HHRA_HC-LS_PT2_ECOLAB_14001-002_E


HHRA_IND_PT2_ECOLAB_14001-002_EC


HHRA_INST_PT2_PT4_ECOLAB_14001-00


Local_HHRA_RMMs_per_use_ECOLAB_1

3.3 New information on the active substance

A new information (Analytical methods of determination of hydrogen peroxide in air; Analytical methods of determination of hydrogen peroxide in water) was submitted to eCA Finland for the purpose of filling the data gaps defined in CAR for Hydrogen Peroxide PTs 1-6. The data package has been evaluated and accepted as sufficient by eCA.

3.4 Residue behaviour

Not applicable

3.5 Summaries of the efficacy studies (B.5.10.1-xx)

Please refer to IUCLID Section 6.7.

3.6 Confidential annex

Please see a separate file.

3.7 Other

None