Biocidal active substance:

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/ICL Europe

2,2-Dibromo-2-cyanoacetamide

Rapporteur Member State: Denmark

(DBNPA)

Section	on A3	Physical and Chem	ical Properties of Act	ive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
3.1	Melting point, boiling point, relative density (IIA3.1)								
3.1.1	Melting point								
	Melting pt. 1	DSC	Purity: 99.51 mol %	125.0 <u>+</u> 0.2 °C		N	1	Doc. No. 112-001, A3.1.1/01	X1
	Melting pt. 2	DSC EPA OPP 63-16	Purity: 98 %	125 °C	DSC experiments performed to investigate explosive properties of DBNPA showed an endothermic peak at 125 °C. This result confirms the melting point determined in a previous study (see above)	Y	1	Doc. No. 119-001, A3.1.1/02	X2
	Melting pt. 3	EC method A.1	98.1 ± 0.5 %	124.5 °C	Melting point determined using the capillary method by heating three samples of the test substance	Y	1	Doc. No. 119-002, A3.1.1/03	X3

Biocidal active substance:

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Rapporteur Member State: Denmark

2,2-Dibromo-2-cyanoacetamide (DBNPA)

October 2023

Section	on A3	Physical and Chem	ical Properties of Act	tive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
3.1.2	Boiling point								
	Boiling point 1	DSC EPA OPP 63-16	Purity: 98 %	Decomposition > 201 °C	DSC experiments performed to investigate explosive properties of DBNPA showed no endothermic peak above the melting point of 125 °C, but an exothermic peak starting at 201 °C with a maximum at 253 °C. This event can be interpreted as a decomposition reaction.	Y	1	Doc. No. 119-001, A3.1.1/02	X4
	Boiling point 2	EC method A.2	98.1 ± 0.5 %		Not determined due to decomposition of the test substance	Y	1	Doc. No. 119-002, A3.1.1/03	X5
3.1.3	Bulk density/ relative density								
	Bulk density 1	EPA OPP 63-7	Purity: 98 %	Bulk density: 1.356 g/cm ³ at 25 °C		Y	1	Doc. No. 119-001, A3.1.1/02	X6
	Bulk density 2	EPA OPP 63-7	Purity: 95 %	Bulk density: untapped: 0.934 g/mL		Y	2	Doc. No. 181-003,	X7

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2,2-Dibromo-2-cyanoacetamide (DBNPA)

Rapporteur Member State: Denmark

October 2023

Section	on A3	Physical and Chemica	l Properties of Act	tive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
				tapped: 1.370 g/mL				C_A3.1.3/01	
3.2	Vapour pressure (IIA3.2)								
	Vapour pressure 1	Knudsen-effusion weight loss method	Purity 98 %	8.91 x 10 ⁻⁶ mmHg = 1.19 x 10 ⁻³ Pa at 19.2 °C 1.96 x 10 ⁻⁴ mmHg = 2.61 x 10 ⁻² Pa at 40.2 °C	Relationship between vapour pressure and temperature was investigated	N	1	Doc. No. 115-001, A3.2/01	X8
	Vapour pressure 2	Calculated: Modified grain method	Not relevant: calculation	1.55 x 10-5 mmHg = 2.1 x 10 ⁻³ Pa at 25 °C	Calculated value confirms experimental results	N	2	Doc. No. 115-004, A3.2/02	X9
3.2.1	Henry's Law Constant (Pt. I-A3.2)	Calculated at 20 °C	Not relevant: calculation	pH 5 = 1.99 x 10 ⁻⁵ Pa m ³ mol ⁻¹ pH 7 = 2.04 x 10 ⁻⁵ Pa m ³ mol ⁻¹ pH 9 = 1.45 x 10 ⁻⁵ Pa m ³ mol ⁻¹	H = Vapour pressure x molecular mass / aqueous solubility	N	2		X10
3.3	Appearance (IIA3.3)		1			I			
3.3.1	Physical state								
	Physical state 1	EPA OPP 63-3	Purity: 98 %	solid crystalline		Y	1	Doc. No. 119-001, A3.1.1/02	X11

Biocidal active substance:

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2,2-Dibromo-2-cyanoacetamide

Rapporteur Member State: Denmark

(DBNPA)

October 2023

Sectio	n A3	Physical and Chemical	Properties of Act	ive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
	Physical state 2	Methods for the determination of physico-chemical properties, Official Journal of the European Communities L383A, Vol. 35, 29 December 1992	98.1 ± 0.5 %	crystalline solid at room temperature		Y	1	Doc. No. 119-002, A3.1.1/03	X12
3.3.2	Colour								
	Colour 1	EPA OPP 63-3	Purity: 98 %	off-white		Y	1	Doc. No. 119-001, A3.1.1/02	X13
	Colour 2	Methods for the determination of physico-chemical properties, Official Journal of the European Communities L383A, Vol. 35, 29 December 1992	98.1 ± 0.5 %	off-white		Y	1	Doc. No. 119-002, A3.1.1/03	X14
3.3.3	Odour		•	•	•	•	•	•	

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2,2-Dibromo-2-cyanoacetamide

Rapporteur Member State: Denmark

(DBNPA) October 2023

Section	on A3	Physical and Chemica	l Properties of Act	ive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
	Odour 1		Purity: > 97 %	Mild pungent		N	1	SDS, Doc. No. 953-002; Document I, Appendix 7/01	X15
	Odour 2		98.1 ± 0.5 %		Not tested due to potential inhalation hazard.	Y	1	Doc. No. 119-002, A3.1.1/03	X16
3.4	Absorption spectra (IIA3.4)								
	UV/VIS	OECD Guideline 101	Purity: > 98 %	The UV spectrum confirms the molecular structure.	UV spectra were recorded in aqueous solutions at pH 2, 7 and 10.	N	1	Doc. No. 117-001, C_A3.4/01	X17
			Purity: 98 %	The UV spectrum confirms the molecular structure.		Y	1	Doc. No. 146-002, C_A3.4/02	X18
	IR	KBr pellet; 4000 – 400 cm ⁻¹	Purity: 99.65 ± 0.02 %	The IR spectrum confirms the molecular structure.		N	1	Doc. No. 411-005, C_A3.4/03	X19

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2,2-Dibromo-2-cyanoacetamide

Rapporteur Member State: Denmark

(DBNPA)

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Section A3	Physical and Chemical	Properties of Act	ive Substance					
Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
NMR	¹ H at 300.279 MHz ¹³ C at 75.512 MHz both in DMSO-d ₆	Purity: 99.65 ± 0.02 %	The ¹ H- and ¹³ C-NMR spectra obtained confirm the molecular structure.		N	1	Doc. No. 411-005, C_A3.4/03	X20
	¹H	98.1 – 99.9 %	The ¹ H-NMR spectrum confirms the molecular structure.		N	2	Doc. No. 411-006, C_A3.4/04	X21
MS		Not indicated	The mass spectrum confirms the molecular structure		N	2	Doc. No. 117-002, C_A3.4/05	X22

Biocidal active substance:

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2,2-Dibromo-2-cyanoacetamide (DBNPA)

Rapporteur Member State: Denmark (DBI

October 2023

Secti	on A3	Physical and Chemic	al Properties of Act	ive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
3.5	Solubility in water (IIA3.5)								
	Water solubility 1	shake flask method	Purity: > 99.5 %	0.79 wt % at 0.1 °C 1.53 wt % at 18.3 °C 3.82 wt % at 46.6 °C 5.46 wt % at 54.5 °C	effect of pH not investigated	N	2	Doc. No. 114-005, A3.5/01	X23
	Water solubility 2	EPA OPP 63-8	Purity 99.5 %	17.00 + 0.50 g/L at 25.7 °C	effect of pH and temperature not investigated	Y	2	Doc. No. 114-003, A3.5/02	X24
	Water solubility 3	EC method A.6 EPA 540/9-82-018 OECD 105	Purity 99.23 %	Mean solubility [g/L]: 10.8 (pH 5, 10 °C) 14.4 (pH 5, 20 °C) 20.2 (pH 5, 30 °C) 11.5 (pH 7, 10 °C) 14.1 (pH 7, 20 °C) 18.6 (pH 7, 30 °C) 19.9 (pH 9, 20 °C)	The mean water solubility of the test item was determined in the range of 10.1 – 20.2 g/L for all pH and temperatures tested.	Y	1	Doc. No. 114-007, A3.5/03	X25
3.6	Dissociation constant (-)	EPA OPP 63-10	Purity: not indicated; however Biobrom C103 is technical DBNPA	spectrophotometric method: pKa = 8.3 ± 0.3 titrimetric method: pKa 8.24 ± 0.05	Only if additional data are required (see BPD, TNsG)	Y	2	Doc. No. 115-003, A3.6/01	X26

Biocidal active substance:

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2,2-Dibromo-2-cyanoacetamide

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Secti	on A3	Physical and Chem	ical Properties of Ac	tive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
3.7	Solubility in organic solvents, including the effect of temperature on solubility (IIIA3.1)								
	Solubility in organic solvents 1	not indicated	not indicated	Results given in wt % at room temperature: methanol: 53 % 2-propanol: 23 % dipropylene glycol: 38% acetonitrile: 49 % dipropylen glycol dimethyl ether: 50 %	30 solvents are addressed in the report. The results for 5 solvents are presented herein.	N	2	Doc. No. 154-001, A3.7/01	X27
	Solubility in organic solvents 2	EPA OPP 63-8	Purity: 95%	results obtained at 23 – 25 °C 150 g / 100 g acetone 160 g / 100 g tetrahydrofuran 75 g / 100 g dimethylformamide 60 g / 100 g ethanol 1 g / 100 g chloroform or benzene	Only results are presented in the report. No details on experiments.	Y	2	Dow Doc. No. 181-003, C_A3.1.3/01	X28
	Solubility	CIPAC MT 181	98.1 ± 0.5 %	> 250 g/L in PEG 200 and acetone at 15 ± 1 °C		Y	1	Doc. No. 119-002,	X29

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2,2-Dibromo-2-cyanoacetamide

Rapporteur Member State: Denmark

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Secti	on A3	Physical and Chemical	Properties of Act	ive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
	in organic solvents 3			and 30 ± 1 °C				A3.1.1/03	
3.8	Stability in organic solvents used in b.p. and identity of relevant breakdown products (IIIA3.2)			Not required	A study is not needed as neither the active substance as manufactured, nor the biocidal product covered by this dossier include an organic solvent.				X30

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2,2-Dibromo-2-cyanoacetamide

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Secti	on A3	Physical and Chemica	l Properties of Act	ive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
3.9	Partition coefficient n-octanol/water (IIA3.6)								
	log Pow 1	EPA OPP 63-11	Purity: 99.5 %	pH 5: log Pow = 0.80 (Kow = 6.24) pH 7: log Pow = 0.80 (Kow = 6.31) pH 9: log Pow = 0.82 (Kow = 6.61) all at 20 – 21 °C	Shake-flask mehod	Y	1	Doc. No. 114-004, A3.9/01	X31

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2,2-Dibromo-2-cyanoacetamide

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Section A3	Physical and Chemic	cal Properties of Act	tive Substance					
Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
3.10 Thermal stabili identity of relev breakdown pro (IIA3.7)	vant	Purity: > 97 %	Gases are released during decomposition. Decomposition products may include and are not limited to: bromine, carbon dioxide, dibromoacetonitrile, hydrogen bromide, nitrogen oxides and traces of cyanogen bromide, ethyl bromide, methyl bromide DSC experiments performed to investigate explosive properties of DBNPA showed an exothermic peak starting at 201 °C with a maximum at 253 °C. This event can be	No tests as per TNsG on data requirements are available. During a meeting of the Applicants and the RMS, RMS advised "to forward what is available" and that a test could be run later if needed.	N	2	SDSs, Doc. Nos. 953- 002; 953-003. Document I, Appendix 7/01 Doc. No. 119-001, A3.1.1/02	X32
			interpreted as a decomposition reaction. DSC experiments performed up to 370°C showed an endothermic event at 125°C and an exothermic event at 245°C. No further events were measured up to 370°C.		N	1	Doc. No. 141-003 A3.10/01	

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2,2-Dibromo-2-cyanoacetamide

Rapporteur Member State: Denmark

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Section	on A3	Physical and Chemical	Properties of Act	ive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
3.11	Flammability, including auto-flammability and identity of combustion products (IIA3.8)								
	Flammability 1	Spatula test, ignition tube test and dust cloud flammability test	Purity: not stated	According to the group A/B classification test, DBNPA is group B non-flammable at temperatures below 110 °C.		Y	2	Doc. No. 142-001, A3.11/01	X33
	Flammability 2	EC method A.10	98.1 ± 0.5 %	(i) The test substance did not propagate combustion. (ii) The test substance is not classified as highly flammable in terms of its burning characteristics.		Y	1	Doc. No. 119-002, A3.1.1/03	X34
	Auto-flammability	EC method A.16	98.1 ± 0.5 %	The test substance did not ignite before melting.		Y	1	Doc. No. 119-002, A3.1.1/03	X35
3.12	Flash-point (IIA3.9)			As DBNPA is a solid at a up to 125 °C, this data recapplicable for DBNPA.					X36

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Biocidal active substance:

Rapporteur Member State: Denmark

2,2-Dibromo-2-cyanoacetamide (DBNPA)

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Section	on A3	Physical and Chemi	cal Properties of Act	ive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
3.13	Surface tension (IIA3.10)	EC method A.5	98.1 ± 0.5 %	$72.2 \pm 0.6 \text{ mN} \cdot \text{m}^{-1}$ at $25.0 \pm 0.5 \text{ °C}$	The Wilhelmy Plate method was used to measure the surface tension.	Y	1	Doc. No. 119-002, A3.1.1/03	X37
3.14	Viscosity (-)			According to the TNsG of the viscosity must be pro DBNPA is a solid at amb to 125 °C, this data requi applicable for DBNPA.	vided for liquids. As itent conditions and up				X38

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2,2-Dibromo-2-cyanoacetamide

Rapporteur Member State: Denmark

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Secti	on A3	Physical and Chemi	ical Properties of Act	ive Substance					
	Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
3.15	Explosive properties (IIA3.11)	DSC EPA OPP 63-16	Purity: 98 %	Based on the results of the test, the test material is not impact sensitive.	Not applicable, there are no chemical groups associated with explosive properties present in the DBNPA molecule. Indeed, none of the groups listed as indicating explosive properties under Section 2.1.4.2 of the ECHA Guidance on the application of the CLP criteria (version 5.0, July 2017) are found in DBNPA, thus Section 2.1.4.2 point a. (page 91) of the CLP criteria is satisfied.	Y	1	Doc. No. 119-001, A3.1.1/02	X39
3.16	Oxidizing properties (IIA3.12)	estimation		According to the TNsG for requirements and the EC cases where an examinate formula establishes beyon that the active ingredient	Method A.17 "In ion of structural nd reasonable doubt	N	2		X40

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2,2-Dibromo-2-cyanoacetamide

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(DBNPA) October 2023

ection A3	Physical and Chemi	cal Properties of Act	tive Substance					
Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Officia use onl
			present constitut the molecule and elements in a hig	to provide such on for the non- properties. " tent to EC Method have no highly ygen, fluorine, ot likely to possess itarly, where these the atoms are only hydrogen, then unlikely. A substance prities when: ive atoms which are e a high proportion of a lare bound to the other elements such as sulphur or nly, the oxygen may be useful as a				

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2,2-Dibromo-2-cyanoacetamide

Rapporteur Member State: Denmark (DBNPA)

October 2023

Section A3	Physical and Chemi	cal Properties of Act	tive Substance					
Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
			oxidizing properties." As can be seen from the or DBNPA, given in Docum DBNPA consist of carbon oxygen and bromine. The oxygen atom are only bon The oxygen balance is not react exothermically material.	nent IIIA, Section 2, n, hydrogen, nitrogen, bromines and the nded to carbon. gative. I that DBNPA does				
3.17 Reactivity towards container material (IIA3.13)	Experience		DBNPA is stored and delivered in HDPE containers without problems for several decades.					X41
	Experience		Keep container closed. Do not store in Aluminium. Avoid contact with amines, strong bases, strong oxidisers, strong reducing agents. Avoid contact with metals such as Aluminium.	Please refer to [REDACTED] Safety Data Sheet (SDS).	N/A	1	SDS, Doc. No. 953-002; Document I, Appendix 7/01	

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2,2-Dibromo-2-cyanoacetamide (DBNPA)

Rapporteur Member State: Denmark

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Section A3	Physical and Chemic	cal Properties of Act	tive Substance					
Subsection (Annex Point)	Method	Purity/ Specification	Results Give also data on test pressure, temperature, pH and concentration range if necessary	Remarks/ Justification	GLP (Y/N)	Reliability	Reference	Official use only
3.18 Dust explosion hazard (IIA4.17.3.)	ISO 6184/1 1085	Purity: not specified	Explosion pressure: 5.6 bar at 2500 g/m³ Max. rate of pressure rise: 340 bar/s at 2500 g/m³ K _{st} value: 92 bar/m/s St class: St 1	The minimum Ignition Energy of DBNPA was found to be >500. Therefore, DBNPA is considered to be low on sensitivity to ignition.	N		Russell L (1995) Chilworth Report No. 04395	
3.19 Granulometry (Correct reference: C_A3.14/01)	CIPAC MT 187		No presence of inhalable/respirable particles have been detected	Particle size analysis by laser diffraction was used.	Y	1	Michnik I, (2023) Report No. GLP3016013 296R1/2023 Pathak S, (2023) Report No. 10971.10 C_A3.14/01	

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ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.1.1 Melting point 1 (X1)

[REDACTED], method in line with EC A1

Conclusion -

Reliability 1

Acceptability Acceptable

Remarks -

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

ConclusionDiscuss if deviating from view of rapporteur member stateReliabilityDiscuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 19-64

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2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.1.1 Melting point 2 (X2)

[REDACTED], method EPA OPP 63-16

Conclusion -

Reliability 1

Acceptability Acceptable

Remarks Method EPA PP 63-16 explodability testing showed endotherm at melting

temperature, confirms previous result.

COMMENTS FROM...

Date Give date of comments submitted

Results and discussionDiscuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

ConclusionDiscuss if deviating from view of rapporteur member stateReliabilityDiscuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 20-64

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2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.1.1 Melting point 3 (X3)

Capillary method, EC A1 on [REDACTED]

Conclusion Reliability 1

Acceptability Acceptable

Remarks -

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 21-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.1.2 Boiling point 1 (X4)

[REDACTED], Method EPA PP 63-16

Conclusion -

Reliability 1

Acceptability Acceptable

Remarks Method EPA PP 63-16 explodability testing showed exotherm starting at 201°C

with a maximum at 253°C. This corresponds to decomposition

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 22-64

ICL Europe/Microbial Control (Switzerland) GmbH.

Remarks

2,2-Dibromo-2-cyanoacetamide (DBNPA)

	EVALUATION BY RAPPORTEUR MEMBER STATE
Date	30 May 2013
Materials and methods	Section 3.1.2 Boiling point 2 (X5)
1	[REDACTED], visual assessment, method EC A2
Conclusion	-
Reliability	1
Acceptability	Acceptable
Remarks	No boiling point determined due to decomposition
-	COMMENTS FROM
Date	Give date of comments submitted
Results and discussion	Discuss additional relevant discrepancies referring to the (sub) heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Reliability	Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 23-64

ICL Europe/Microbial Control (Switzerland) GmbH.

Remarks

2,2-Dibromo-2-cyanoacetamide (DBNPA)

	EVALUATION BY RAPPORTEUR MEMBER STATE							
Date	30 May 2013							
Materials and methods	Section 3.1.3 Bulk/rel. density 1 (X6)							
	Bulk density on [REDACTED] at 23°C, method EPA OPP 63-7							
Conclusion	-							
Reliability	1							
Acceptability	Acceptable							
Remarks	Both tapped and untapped results should be reported, see Bulk/rel. density 2							
	COMMENTS FROM							
Date	Give date of comments submitted							
Results and discussion	Discuss additional relevant discrepancies referring to the (sub) heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state							
Conclusion	Discuss if deviating from view of rapporteur member state							
Reliability	Discuss if deviating from view of rapporteur member state							
Acceptability	Discuss if deviating from view of rapporteur member state							

Joint dossier Biocidal active substance: Page 24-64

ICL Europe/Microbial Control (Switzerland) GmbH.

Remarks

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE Date 30 May 2013 Materials and methods Section 3.1.3 Bulk/rel. density 2 (X7) Bulk density on [REDACTED]at 25°C Conclusion Reliability Acceptability Acceptable Remarks Both tapped and untapped results are presented **COMMENTS FROM...** Date Give date of comments submitted Discuss additional relevant discrepancies referring to the (sub) heading numbers Results and discussion and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state Conclusion Discuss if deviating from view of rapporteur member state Reliability Discuss if deviating from view of rapporteur member state Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 25-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.2 Vapour pressure 1 (X8)

Vapour pressure Knudsen effusion method EC A4 on [REDACTED] at 20°C and

40°C

Conclusion -

Reliability 1

Acceptability Acceptable

Remarks -

COMMENTS FROM...

Date Give date of comments submitted

Results and discussionDiscuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 26-64

ICL Europe/Microbial Control (Switzerland) 2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.2 Vapour pressure 2 (X9)

Calculation method

Conclusion Reliability 2

Acceptability Acceptable

Remarks Confirms experimental results

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 27-64

ICL Europe/Microbial Control (Switzerland) 2,2-Dib GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.2.1 Henrys Law Constant (X10)

Calculated from vapour pressure and water solubility

Conclusion Reliability 2

Acceptability Acceptable

Remarks

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 28-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.3.1 Physical state 1 (X11)

Visual assessment on [REDACTED] at 25°C

Conclusion Reliability 1

Acceptability Acceptable

Remarks -

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 29-64

ICL Europe/Microbial Control (Switzerland) 2 GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.3.1 Physical state 2 (X12)

Visual assessment on [REDACTED] at room temperature

Conclusion Reliability 1

Acceptability Acceptable

Remarks -

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 30-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.3.2 Colour 1 (X13)

Visual assessment on [REDACTED] at 25°C

Conclusion Reliability 1

Acceptability Acceptable

Remarks -

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 31-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.3.2 Colour 2 (X14)

Visual assessment on [REDACTED] at room temperature

Conclusion Reliability 1

Acceptability Acceptable

Remarks -

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 32-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.3.3 Odour 1 (X15)

Conclusion Reliability 2

Acceptability Acceptable

Remarks Not a data requirement, [REDACTED]

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 33-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.3.3 Odour 2 (X16)

Not tested due to inhalation hazard

Conclusion Reliability 1

Acceptability Acceptable

Remarks Lot number of test item not given

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 34-64

ICL Europe/Microbial Control (Switzerland) GmbH.

Acceptability

Remarks

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE 30 May 2013 Date Materials and methods Section 3.4 UV/Vis (X17) OECD 101 conducted on [REDACTED] at 3 pH values Conclusion Reliability Acceptability Acceptable pH2 spectra has maxima at 195 nm which give $\varepsilon = 3900 \text{ L.mol}^{-1}.\text{cm}^{-1}$ Remarks pH 10 and 7 spectra have no maxima **COMMENTS FROM...** Date Give date of comments submitted Discuss additional relevant discrepancies referring to the (sub) heading numbers Results and discussion and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state Discuss if deviating from view of rapporteur member state Conclusion Reliability Discuss if deviating from view of rapporteur member state

Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 35-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.4 UV/Vis (X18)

Conducted on [REDACTED]at one pH

Conclusion Reliability 2

Acceptability Acceptable

Remarks Confirms molecular structure only conducted at one pH, acceptable as purity is

98%, therefore unlikely to give different result than the [REDACTED]. Full

details of instrumentation not given.

COMMENTS FROM...

Date Give date of comments submitted

Results and discussionDiscuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

ConclusionDiscuss if deviating from view of rapporteur member stateReliabilityDiscuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 36-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.4 IR (X19)

In KBr disks conducted on technical DBNPA (99.65%)

Conclusion Reliability 1

Acceptability Acceptable

Remarks Conducted on [REDACTED]

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 37-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.4 NMR (X20)

¹³C and 1H spectra

Conclusion Reliability 1

Acceptability Acceptable

Remarks Conducted on [REDACTED]

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 38-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.4 NMR (X21)

¹H spectra

Conclusion - Reliability 3

Acceptability Not Acceptable

Remarks Full details are not given for the ¹H NMR, details of the test item are missing,

instrument conditions not given. See X20 for acceptable data.

COMMENTS FROM...

Date Give date of comments submitted

Results and discussionDiscuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 39-64

ICL Europe/Microbial Control (Switzerland) GmbH.

Reliability

Remarks

Acceptability

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE Date 30 May 2013 Materials and methods Section 3.4 MS (X22) No purity stated or method Conclusion Reliability Acceptability Acceptable Remarks Information is missing on the MS method and purity **COMMENTS FROM...** Date Give date of comments submitted Discuss additional relevant discrepancies referring to the (sub) heading numbers Results and discussion and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state Conclusion Discuss if deviating from view of rapporteur member state

Discuss if deviating from view of rapporteur member state

Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 40-64

2,2-Dibromo-2-cyanoacetamide

ICL Europe/Microbial Control (Switzerland) GmbH.

(DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.5 Water solubility 1 (X23)

Shake flask method on [REDACTED]

Conclusion Reliability 3

Acceptability Not Acceptable

Remarks pH not investigated. As the test item has a pKa pH should be investigated. Please

refer to Water solubility 3

COMMENTS FROM...

Date Give date of comments submitted

Results and discussionDiscuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 41-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.5 Water solubility 2 (X24)

Shake flask method on [REDACTED]

Conclusion Reliability 3

Acceptability Not Acceptable

Remarks pH not investigated. As the test item has a pKa pH should be investigated. Please

refer to Water solubility 3

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 42-64

ICL Europe/Microbial Control (Switzerland) GmbH.

Remarks

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

	EVALUATION BY RAPPORTEUR MEMBER STATE
Date	30 May 2013
Materials and methods	Section 3.5 Water solubility 3 (X25)
	Shake flask method on [REDACTED], OECD 105
Conclusion	-
Reliability	1
Acceptability	Acceptable
Remarks	Effects of pH and temperature investigated. pKa of 8.3
	COMMENTS FROM
Date	Give date of comments submitted
Results and discussion	Discuss additional relevant discrepancies referring to the (sub) heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Reliability	Discuss if deviating from view of rapporteur member state
Acceptability	Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 43-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.6 Dissociation constant (X26)

Purity not stated however conducted on [REDACTED] which is technical

DBNPA, titrimetric and spectroscopic method

Conclusion Acceptable

Reliability 2

Acceptability Acceptable

Remarks [REDACTED]. Testing at 23-25°C. Not conducted in triplicate as stated in OECD

112, conducted by titrimetric and spectroscopic methods with good agreement

between results, no check made for the presence of emulsions.

COMMENTS FROM...

Date Give date of comments submitted

Results and discussionDiscuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 44-64

ICL Europe/Microbial Control (Switzerland) GmbH.

Remarks

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

	EVALUATION BY RAPPORTEUR MEMBER STATE
Date	30 May 2013
Materials and methods	Section 3.7 Solubility in organic solvents 1 (X27)
Conclusion	-
Reliability	3
Acceptability	Not Acceptable
Remarks	Various solvents used with no indication of purity and not given in g/L. No temperature given. See solubility in organic solvents 2 and 3
	COMMENTS FROM
Date	Give date of comments submitted
Results and discussion	Discuss additional relevant discrepancies referring to the (sub) heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Reliability	Discuss if deviating from view of rapporteur member state
Acceptability	Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 45-64

ICL Europe/Microbial Control (Switzerland) 2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE 30 May 2013 Date Materials and methods Section 3.7 solubility in organic solvents 2 (X28) Conclusion 3 Reliability Acceptability Not Acceptable No details on method Remarks **COMMENTS FROM...** Date Give date of comments submitted Discuss additional relevant discrepancies referring to the (sub) heading numbers Results and discussion and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state Conclusion Discuss if deviating from view of rapporteur member state Reliability Discuss if deviating from view of rapporteur member state Acceptability Discuss if deviating from view of rapporteur member state Remarks

Evaluation by Rapporteur Member State

Joint dossier Biocidal active substance: Page 46-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.7 solubility in organic solvents 3 (X29)

Conducted on technical DBNPA

Conclusion Reliability 1

Acceptability Acceptable

Remarks Conducted on PEG 200 and acetone, conducted on technical DBNPA of 98.1%

purity. [REDACTED]. However, the purity of 98.1% can be considered acceptable, as a more pure form is unlikely to give different results.

COMMENTS FROM...

Date Give date of comments submitted

Results and discussionDiscuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

ConclusionDiscuss if deviating from view of rapporteur member stateReliabilityDiscuss if deviating from view of rapporteur member stateAcceptabilityDiscuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 47-64

ICL Europe/Microbial Control (Switzerland) GmbH.

Remarks

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE 30 May 2013 Date Materials and methods Section 3.8 solubility in organic solvents used in b.p. and identity of relevant breakdown products (X30) Conclusion Reliability Acceptability Acceptable Remarks Not required **COMMENTS FROM...** Date Give date of comments submitted Discuss additional relevant discrepancies referring to the (sub) heading numbers Results and discussion and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state Conclusion Discuss if deviating from view of rapporteur member state Discuss if deviating from view of rapporteur member state Reliability Acceptability Discuss if deviating from view of rapporteur member state

Page 48-64 Joint dossier Biocidal active substance:

ICL Europe/Microbial Control (Switzerland) GmbH. 2,2-Dibromo-2-cyanoacetamide

Remarks

(DBNPA)

October 2023 Document IIIA, Section A3

	EVALUATION BY RAPPORTEUR MEMBER STATE
Date	30 May 2013
Materials and methods	Section 3.9 Partition coefficient n-octanol/water (X31)
	Conducted on [REDACTED] at 3 pH's
Conclusion	-
Reliability	1
Acceptability	Acceptable
Remarks	Used different concentrations at each pH, did not vary the ratio of octanol:water.
	COMMENTS FROM
Date	Give date of comments submitted
Results and discussion	Discuss additional relevant discrepancies referring to the (sub) heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Reliability	Discuss if deviating from view of rapporteur member state
Acceptability	Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 49-64

ICL Europe/Microbial Control (Switzerland) GmbH.

Acceptability

Remarks

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

	EVALUATION BY RAPPORTEUR MEMBER STATE
Date	3 June 2013
Materials and methods	Section 3.10 Thermal stability, identity of relevant breakdown products (X32)
Conclusion	-
Reliability	2
Acceptability	Acceptable
Remarks	DSC analysis showed the melting and decomoposition temperatures. [REDACTED]
	COMMENTS FROM
Date	Give date of comments submitted
Results and discussion	Discuss additional relevant discrepancies referring to the (sub) heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Reliability	Discuss if deviating from view of rapporteur member state

Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 50-64

ICL Europe/Microbial Control (Switzerland) 2,3 GmbH.

Remarks

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

	EVALUATION BY RAPPORTEUR MEMBER STATE
Date	30 May 2013
Materials and methods	Section 3.11 Flammability 1 (X33)
Conclusion	-
Reliability	3
Acceptability	Not acceptable
Remarks	Purity not stated and testing not inline with EC A10 see Flammablity 2
	COMMENTS FROM
Date	Give date of comments submitted
Results and discussion	Discuss additional relevant discrepancies referring to the (sub) heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Reliability	Discuss if deviating from view of rapporteur member state
Acceptability	Discuss if deviating from view of rapporteur member state

Joint dossier	Biocidal active substance:	Page 51-64
ICL Europe/Microbial Control (Switzerland) GmbH.	2,2-Dibromo-2-cyanoacetamide	
GMDH.	(DBNPA)	
Document IIIA, Section A3		October 2023

Joint dossier Biocidal active substance: Page 52-64

ICL Europe/Microbial Control (Switzerland)

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

October 2023

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.11 Flammability 2 (X34)

Method EC A10 conducted on technical DBNPA

Conclusion Reliability 1

Acceptability Acceptable

Remarks -

Justification from applicant

Two key studies on flammability and one key study on the autoflammability properties for DBNPA were submitted by the applicants in July 2007 in accordance with the data requirements for the BPD (98/8/EC), prior to Regulation (EU) 1272/2008 coming into force.

In accordance with the Guidance on application of the CLP criteria v5 July 2017: For the classification of a substance or mixture as a flammable solid data on the following properties are needed:

- melting point;
- information on water reactivity;
- information on flash point for solids containing flammable liquids. For inorganic material, testing may be waived in cases where the substance is commonly known to be not flammable (i.e. stable salts or metal oxides) or where a flammability hazard can be excluded by any other scientific reasoning. The melting point of DBNPA is 125°C, with decomposition from 201°C. The substance hydrolyses in water and is highly soluble (ca. 10-20 g/L) in the pH range 5 to 9, at temperatures of 10 to 30°C. The substance does not contain any

flammable liquid being identified as a white crystalline solid. The two existing flammability studies performed to EC Method A10

Show that

- (i) The test substance did not propagate combustion.
- (ii) The test substance is not classified as highly flammable in terms of its burning characteristics.

In the autoflammability study performed in accordance with EC Method A 16, the test substance did not ignite before melting.

In the absence of any indication in the existing studies that the substance is flammable, an additional screening study performed in accordance with Part III, Sub-section 33.2.1.4.3.2 of the UN-MTC is scientifically unjustified.

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

ConclusionDiscuss if deviating from view of rapporteur member stateReliabilityDiscuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier ICL Europe/Microbial Control (Switzerland) GmbH.	Biocidal active substance: 2,2-Dibromo-2-cyanoacetamide (DBNPA)	Page 53-64
Document IIIA, Section A3		October 2023
Remarks		

Page 54-64 Joint dossier Biocidal active substance:

ICL Europe/Microbial Control (Switzerland)

2,2-Dibromo-2-cyanoacetamide (DBNPA)

October 2023 Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.11 Autoflammability (X35)

Method EC A16 conducted on technical DBNPA

Conclusion Reliability

Acceptability Acceptable

Remarks

Justification from applicant

In accordance with the Guidance on application of the CLP criteria v5 July 2017: According to the additional classification considerations in CLP Annex I, 2.10.4, the classification procedure for pyrophoric solids need not be applied when experience in manufacture or handling shows that the substance or mixture does not ignite spontaneously on coming into contact with air at normal temperatures (i.e. the substance or mixture is known to be stable at room temperature for

prolonged periods of time (days)).

In the autoflammability study performed in accordance with EC Method A 16, the

test substance did not ignite before melting.

In addition, there have been no reported incidences of the substance exhibiting pyrophoric properties during manufacture, transport, use or during testing. In the absence of any indication that the substance is pyrophoric a UN Test N.2 as described in Part III, Sub-section 33 of the UN-MTC is scientifically

unjustified.

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 55-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.12 Flash point (X36)

According to the TNsG on data requirements, the flash point must be provided for liquids. As DBNPA is a solid at ambient conditions and up to 125 °C, this data

requirement is not applicable for DBNPA.

Conclusion -

Reliability 1

Acceptability Acceptable

Remarks -

COMMENTS FROM...

Date Give date of comments submitted

Results and discussionDiscuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 56-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.13 Surface tension (X37)

Method EC A5 conducted on technical DBNPA at 25°C at 1g/L

Conclusion -

Reliability 1

Acceptability Acceptable

Remarks Not surface active

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 57-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.14 Viscosity (X38)

According to the TNsG on data requirements, the viscosity must be provided for liquids. As DBNPA is a solid at ambient conditions and up to 125 °C, this data

requirement is not applicable for DBNPA.

Conclusion -

Reliability 1

Acceptability Acceptable

Remarks

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 58-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.15 Explosive properties (X39)

DSC EPA OPP63-16 Conducted at 98% purity

Conclusion -

Reliability 1

Acceptability Acceptable

Remarks

COMMENTS FROM APPLICANT

Date April 2022

Results and discussion The waiver justification was updated as requested by the eCA:

Not applicable, there are no chemical groups associated with explosive properties present in the DBNPA molecule. Indeed, none of the groups listed as indicating explosive properties under Section 2.1.4.2 of the ECHA Guidance on the application of the CLP criteria (version 5.0, July 2017) are found in DBNPA, thus

Section 2.1.4.2 point a. (page 91) of the CLP criteria is satisfied.

ConclusionDiscuss if deviating from view of rapporteur member stateReliabilityDiscuss if deviating from view of rapporteur member stateAcceptabilityDiscuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance:

ICL Europe/Microbial Control (Switzerland)

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Page 59-64

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 30 May 2013

Materials and methods Section 3.16 Oxidising properties (X40)

According to the TNsG for guidance on data requirements and the EC Method A.17 "In cases where an examination of structural formula establishes beyond reasonable doubt that the active ingredient is incapable of reacting exothermically with combustible material, it is acceptable to provide such information as justification for the non-determining of oxidising properties."

According to the supplement to EC Method A17 "Compounds which have no highly electronegative atom - oxygen, fluorine, chlorine, bromine - are not likely to possess oxidizing properties. Similarly, where these elements are present but the atoms are only bonded to carbon and/or hydrogen, then oxidizing properties are unlikely. A substance may have oxidizing properties when:

- the electronegative atoms which are present constitute a high proportion of the molecule and are bound to elements in a high oxidation state;
- the electronegative atoms are bonded to each other or to other electronegative elements such as iodine, nitrogen, sulphur or phosphorus.

For organic substances only, the oxygen balance (OB) calculation may be useful as a criteria combined with an examination of the chemical structure as a means of predicting oxidizing properties."

As can be seen from the chemical structure of DBNPA, given in Document IIIA, Section 2, DBNPA consist of carbon, hydrogen, nitrogen, oxygen and bromine. The bromines and the oxygen atom are only bonded to carbon.

The oxygen balance is negative.

Therefore, it is concluded that DBNPA does not react exothermically with combustible material..

Conclusion Reliability 2

Acceptability Acceptable

Remarks

COMMENTS FROM...

Date Give date of comments submitted

Results and discussionDiscuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 60-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 3 June 2013

Materials and methods Section 3.17 Reactivity towards container material (X41)

Conclusion Reliability 2

Acceptability Acceptable

Remarks The applicant states DBNPA has been stored and delivered in HDPE containers

without problems for several decades.

MSDS states avoid contact with amines, strong bases, strong oxidisers, strong

reducing agents. Avoid contact with metals such as Aluminium.

Recommended that at product authorisation the applicant provides further

information to support this claim.

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Remarks

Conclusion

Joint dossier Biocidal active substance: Page 61-64

ICL Europe/Microbial Control (Switzerland) GmbH.

2,2-Dibromo-2-cyanoacetamide (DBNPA)

Document IIIA, Section A3

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 26 July 2023

Materials and methods Section 3.19 (3.14 correct reference)

Granulometry, CIPAC MT 187

Conclusion -

Reliability 1

Acceptability Acceptable

Remarks No presence of inhalable/respirable particles have been detected

COMMENTS FROM...

Date Give date of comments submitted

Results and discussion Discuss additional relevant discrepancies referring to the (sub) heading numbers

and to applicant's summary and conclusion.

Discuss if deviating from view of rapporteur member state

Conclusion Discuss if deviating from view of rapporteur member state

Reliability Discuss if deviating from view of rapporteur member state

Acceptability Discuss if deviating from view of rapporteur member state

Joint dossier Biocidal active substance: Page 62-64 2,2-Dibromo-2-cyanoacetamide

ICL Europe/Microbial Control (Switzerland) GmbH. (DBNPA)

October 2023 Document IIIA, Section A3

Section A3 Annex Point IIA, III.3	Self-reactive substances and mixtures	
	JUSTIFICATION FOR NON-SUBMISSION OF DATA	Official use only
Other existing data []	Technically not feasible [] Scientifically unjustified []	
Limited exposure []	Other justification [X]	
Detailed justification:	Not applicable, there are no chemical groups present in DBNPA associated with explosive or self-reactive properties. Indeed, none of the groups given in Table A6.1 in Appendix 6 of the UN RTDG, Manual of Tests and Criteria (Rev. 7, 2019) are found in DBNPA, thus Annex I: 2.8.4.2 (page 157) of the CLP criteria is satisfied.	
Undertaking of intended data submission []		
	Evaluation by Competent Authorities	
	Use separate "evaluation boxes" to provide transparency as to the comments and views submitted	
	EVALUATION BY RAPPORTEUR MEMBER STATE	
Date	31. October 2022	
Evaluation of applicant's justification	Based on information given in Annex 6 of the UN RTDG, Manual of Tests and Criteria (Rev. 7, 2019) and on satisfaction of Annex 2.8.4.2 of the CLP Guidance on the Application of the CLP Criteria (v.5. June 2017), submission of data on DNPA is not necessary.	
Conclusion	Justification by applicant is acceptable.	
Remarks		
	COMMENTS FROM OTHER MEMBER STATE (specify)	
Date	Give date of comments submitted	
Evaluation of applicant's justification	Discuss if deviating from view of rapporteur member state	
	Discuss if deviating from view of rapporteur member state	

Joint dossier Biocidal active substance: Page 63-64 2,2-Dibromo-2-cyanoacetamide

ICL Europe/Microbial Control (Switzerland) GmbH. (DBNPA)

October 2023

Document IIIA, Section A3

Section A3 Annex Point IIA, III.3	Self-heating substances and mixtures	
	JUSTIFICATION FOR NON-SUBMISSION OF DATA	Official use only
Other existing data []	Technically not feasible [] Scientifically unjustified []	
Limited exposure []	Other justification [X]	
Detailed justification:	According to CLP guidance p 113: "Substances or mixtures with a low melting point (< 160 °C) should not be considered for classification in this class since the melting process is endothermic and the substance-air surface is drastically reduced. However, this criterion is only applicable if the substance or mixture is completely molten up to this temperature." The melting point of DBNPA is 123-125 °C thus it should not be considered for classification in this class.	
Undertaking of intended data submission []		
	Evaluation by Competent Authorities	
	Use separate "evaluation boxes" to provide transparency as to the comments and views submitted	
	EVALUATION BY RAPPORTEUR MEMBER STATE	
Date	31. October 2022	
Evaluation of applicant's justification	Based on information given in the CLP Guidance on the Application of the CLP Criteria v.5 2017 and on the melting point of DBNPA, submission of data is not necessary.	
Conclusion	Justification by applicant is acceptable.	
Remarks		
	COMMENTS FROM OTHER MEMBER STATE (specify)	
Date	Give date of comments submitted	
Evaluation of applicant's justification	Discuss if deviating from view of rapporteur member state	
Conclusion	Discuss if deviating from view of rapporteur member state	

Joint dossier Biocidal active substance: Page 64-64 ICL Europe/Microbial Control (Switzerland) GmbH. 2,2-Dibromo-2-cyanoacetamide

October 2023 Document IIIA, Section A3

(DBNPA)

Section A3 Annex Point IIA, III.3	Substances and mixtures which in contact with water emit flammable gases and organic peroxides	
	JUSTIFICATION FOR NON-SUBMISSION OF DATA	Official use only
Other existing data []	Technically not feasible [] Scientifically unjustified []	
Limited exposure []	Other justification [X]	
Detailed justification:	Not applicable, DBNPA does not contain metals or metalloids and is known be moderately soluble in water forming a stable mixture when diluted in water. Thus Annex I: 2.12.4.1 a) and c) (page 191) of the ECHA Guidance on the application of the CLP criteria (version 5.0, July 2017) is satisfied. Furthermore, Annex I: 2.12.4.1 b) (page 191) is satisfied due to water being the primary solvent used in DBNPA production.	
Undertaking of intended data submission []		
	Evaluation by Competent Authorities	
	Use separate "evaluation boxes" to provide transparency as to the comments and views submitted	
	EVALUATION BY RAPPORTEUR MEMBER STATE	
Date	31. October 2022	
Evaluation of applicant's justification	Based on information given in the CLP Guidance on the Application of the CLP Criteria (v.5 June 2017) and on the chemical composition, DBNPA is assessed to not emit flammable gases and organic peroxides when in contact with water. Submission of data is not necessary.	
Conclusion	Justification by applicant is acceptable	
Remarks		
	COMMENTS FROM OTHER MEMBER STATE (specify)	
Date	Give date of comments submitted	
Evaluation of applicant's	Discuss if deviating from view of rapporteur member state	
justification		