Summary of product characteristics for a biocidal product

Product name: Protectol GA 50

Product type(s): PT06 - Preservatives for products during storage (Preservatives)

PT06 - Preservatives for products during storage (Preservatives)

PT06 - Preservatives for products during storage (Preservatives)

PT06 - Preservatives for products during storage (Preservatives)

PT06 - Preservatives for products during storage (Preservatives)

PT11 - Preservatives for liquid-cooling and processing systems (Preservatives)

PT11 - Preservatives for liquid-cooling and processing systems (Preservatives)

PT12 - Slimicides (Preservatives)

PT12 - Slimicides (Preservatives)

PT12 - Slimicides (Preservatives)

PT12 - Slimicides (Preservatives)

Authorisation number: 847-1

R4BP 3 asset reference number: DK-0015763-0000

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Administrative information

1.1. Trade names of the product

Protectol GA 50
Protectol GA 50 OF
Myacide GA 50
FennoSan GL 10 B
BIM CC 3250
BIM MC 4946
BIM MP 4850
FennoCide GL 50 B
Protectol® GA 50
Myacide® GA 50
Protectol® GA 50 OF
FennoSan GL10B
FennoCide GL 50 B
BIM CC 3250
BIM MC 4946
BIM MP 4850
Protectol® GA 50
Myacide® GA 50
Protectol® GA 50 OF
FennoSan GL10B
FennoCide GL 50 B
BIM CC 3250
BIM MC 4946
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Protectol® GA 50
Myacide® GA 50
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Protectol® GA 50

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BIM CC 3250

BIM MC 4946

BIM MP 4850

Protectol® GA 50

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BIM CC 3250

BIM MC 4946

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FennoCide GL 50 B

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BIM MC 4946

BIM MP 4850

Protectol® GA 50

Myacide® GA 50

Protectol® GA 50 OF

FennoSan GL10B

FennoCide GL 50 B

BIM CC 3250

BIM MC 4946

BIM MP 4850

Protectol® GA 50

Myacide® GA 50

Protectol® GA 50 OF

FennoSan GL10B

FennoCide GL 50 B

BIM CC 3250

BIM MC 4946

BIM MP 4850

Protectol® GA 50

Myacide® GA 50

Protectol® GA 50 OF

FennoSan GL10B

FennoCide GL 50 B

BIM CC 3250

BIM MC 4946

BIM MP 4850

Protectol® GA 50

Myacide® GA 50

Protectol® GA 50 OF

FennoSan GL10B

FennoCide GL 50 B

BIM CC 3250

BIM MC 4946

BIM MP 4850
Protectol® GA 50
Myacide® GA 50
Protectol® GA 50 OF
BIM CC 3250
BIM MC 4946
BIM MP 4850
BIM MC 4950
Protectol GA 50
Myacide GA 50
Protectol GA 50 OF

1.2. Authorisation holder

Name and address of the authorisation holder	Name	BASF SE
	Address	Carl-Bosch-Str. 38 67056 Ludwigshafen am Rhein Germany
Authorisation number	847-1	
R4BP 3 asset reference number	DK-0015763-0000	
Date of the authorisation	28/06/2018	
Expiry date of the authorisation	27/12/2024	

1.3. Manufacturer(s) of the biocidal products

Name of the manufacturer	BASF SE
Address of the manufacturer	Carl-Bosch-Str. 38 67056 Ludwigshafen Germany
Location of manufacturing sites	Carl-Bosch-Str. 38 67056 Ludwigshafen Germany

1.4. Manufacturer(s) of the active substance(s)

Active substance	1310 - Glutaral (Glutaraldehyde)
Name of the manufacturer	BASF SE
Address of the manufacturer	Carl-Bosch-Str. 38 67056 Ludwigshafen Germany
Location of manufacturing sites	Carl-Bosch-Str. 38 67056 Ludwigshafen Germany

2. Product composition and formulation

2.1. Qualitative and quantitative information on the composition of the biocidal product

Common name	IUPAC name	Function	CAS number	EC number	Content (%)
Glutaral (Glutaraldehyde)		Active Substance	111-30-8	203-856-5	50

2.2. Type of formulation

AL - Any other liquid

3. Hazard and precautionary statements

Hazard statements

Toxic if swallowed.

Fatal if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Toxic to aquatic life with long lasting effects.

Corrosive to the respiratory tract.

Precautionary statements	Do not breathe spray. Wash hands thoroughly after handling. Do no eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves. [In case of inadequate ventilation] wear respiratory protection. IF SWALLOWED:Immediately call a POISON CENTER. IF SWALLOWED:Rinse mouth.Do NOT induce vomiting. IF ON SKIN (or hair):Take off immediately all contaminated clothing.Rinse skin with water. IF INHALED:Remove person to fresh air and keep comfortable for breathing. IF IN EYES:Rinse cautiously with water for several minutes.Remove contact lenses, if present and easy to do. Continue rinsing. If experiencing respiratory symptoms:Call a doctor. Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Take off contaminated clothing.And wash it before reuse. Collect spillage. Store in a well-ventilated place.Keep container tightly closed. Store locked up. Dispose of contents to according to national requirements.

4. Authorised use(s)

4.1 Use description

Use 1 - Preservation of detergents and cleaning fluids and raw materials thereof

Product type	PT06 - Preservatives for products during storage (Preservatives)
Where relevant, an exact description of the authorised use	preservation of detergents and cleaning fluids (laundry products, laundry softener, liquid dishwashing products, hard surface cleaners and raw materials for use in detergent and cleaning applications)
Target organism(s) (including development stage)	Scientific name: - Common name: bacteria Development stage: -

Field(s) of use	Indoor industrial setting, automatic dosing via pump and dosing line
Application method(s)	Method: single addition to containers and vessels Detailed description: single dose of liquid to the chemical mixture in vessels or added to drums, canisters etc. via pumps and dosing lines during manufacture Method: single addition to containers and vessels Detailed description: pre-dilution of Protectol GA 50 in tanks to 24 % glutaral with water, afterwards single dose of liquid to the chemical mixture in vessels or added to drums, canisters etc. via pumps and dosing lines during manufacture
Application rate(s) and frequencies	Application Rate: The effective concentration is 100-1958 mg Protectol® GA 50 per kg. Dilution (%): 0 Number and timing of application: single application Application Rate: The effective concentration is 50-979 mg glutaraldehyde per kg. Dilution (%): 50 Number and timing of application: single application
Category(ies) of users	Industrial
Pack sizes and packaging material	Iso Tank Container, stainless steel (no inliner) , 3-30 m^3 container or road tanker IBC (intermediate bulk container), Plastic: HDPE , 1100 kg Drum, Plastic: HDPE or steel/PE inliner, 230 kg Drum, steel with PE inliner , 60 kg Bottle, Glass , 1 kg Bottle, Plastic: PE , 1 kg only packaging for customer sampling, not intended for sales material

4.1.1 Use-specific instructions for use

none

4.1.2 Use-specific risk mitigation measures

none

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

none

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

none

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

none

4.2 Use description

Use 2 - Cannot be authorised based on submitted efficacy data: preservation of wax and polymer emulsions and raw materials thereof

Product type	PT06 - Preservatives for products during storage (Preservatives)
Where relevant, an exact description of the authorised use	Preservative for polymer emulsions (polishes, car polishes, waxes)
Target organism(s) (including development stage)	Scientific name: - Common name: - Development stage: -
Field(s) of use	Indoor Outdoor industrial setting, automatic dosing via pump and dosing line
Application method(s)	Method: - Detailed description: -

Application rate(s) and frequencies	Application Rate: - Dilution (%): Number and timing of application: -
Category(ies) of users	Trained professional Industrial Professional
Pack sizes and packaging material	- - - -

4.2.1 Use-specific instructions for use

none

4.2.2 Use-specific risk mitigation measures

none

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

none

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

none

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

none

4.3 Use description

Use 3 - Preservation of water based products used in the paper industry

Product type	PT06 - Preservatives for products during storage (Preservatives)
Where relevant, an exact description of the authorised use	Preservation of additives used in the production of paper: inorganic slurries (CaCO3 and kaolin), cellulose (pulp), polymers, pigment dispersions, starch
Target organism(s) (including development stage)	Scientific name: - Common name: bacteria and yeasts Development stage: -
Field(s) of use	Indoor industrial setting, automatic dosing via pump and dosing line
Application method(s)	Method: single addition to containers and vessels Detailed description: single dose of liquid to the chemical mixture in vessels or added to drums, canisters etc. via pumps and dosing lines during manufacture Method: single addition to containers and vessels Detailed description: pre-dilution of Protectol GA 50 in tanks to 24 % glutaral with water, afterwards single dose of liquid to the chemical mixture in vessels or added to drums, canisters etc. via pumps and dosing lines during manufacture
Application rate(s) and frequencies	Application Rate: The effective concentration for industrial products is 20-1958 mg Protectol® GA 50 per kg. Dilution (%): 0 Number and timing of application: single application Application Rate: The effective concentration is 10-979 mg glutaraldehyde per kg. Dilution (%): 50 Number and timing of application: single application
Category(ies) of users	Industrial
Pack sizes and packaging material	iso container, steanless steel (no inliner), 3-30 m³ container or road tanker

IBC (intermediate bulk container), Plastic: HDPE , 1100 kg

Drum, Plastic: HDPE or steel/PE inliner , 230 kg

Drum, steel with PE inliner , 60 kg

Bottle, Glass , 1 kg
Bottle, Plastic: PE , 1 kg

only packaging for customer sampling, not intended for sales material

4.3.1 Use-specific instructions for use

none

4.3.2 Use-specific risk mitigation measures

The person responsible for the placing on the market fully preserved pulp shall ensure that the label of these treated articles provides the following information: Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information) and protective coated coverall (at least TN3, EN 14605; coverall material to be specified by the authorisation holder within the product information; 10% penetration), and RPE (2.5 % penetration; APF 40) while loading and unloading slurry tanks only in case of fully preserved pulp (cellulose and additives) and if slurries are not pumped in automatic procedures.

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

none

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

none

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

none

4.4 Use description

Use 4 - Preservation of paints and raw materials thereof

Product type	PT06 - Preservatives for products during storage (Preservatives)
Where relevant, an exact description of the authorised use	preservation of paints and raw materials for the production of paints, plastic and glues (pigments, polymer and pigment dispersions, inorganic slurries used as fillers)
Target organism(s) (including development stage)	Scientific name: - Common name: bacteria and yeasts Development stage: -
Field(s) of use	Indoor Outdoor industrial setting, automatic dosing via pump and dosing line
Application method(s)	Method: single addition to containers and vessels Detailed description: single dose of liquid to the chemical mixture in vessels or added to drums, canisters etc. via pumps and dosing lines during manufacture Method: single addition to containers and vessels Detailed description: pre-dilution of Protectol GA 50 in tanks to 24 % glutaral with water, afterwards single dose of liquid to the chemical mixture in vessels or added to drums, canisters etc. via pumps and dosing lines during manufacture
Application rate(s) and frequencies	Application Rate: The effective concentration is 50-1958 mg Protectol® GA 50 per kg. Dilution (%): 0 Number and timing of application: single application Application Rate: The effective concentration is 25-979 mg glutaraldehyde per kg. Dilution (%): 50 Number and timing of application: single application
Category(ies) of users	Industrial Trained professional Professional
Pack sizes and packaging material	iso tank container, stainless steel (no inliner), 3-30 m^3 container or road tanker IBC (intermediate bulk container), Plastic: HDPE , 1100 kg

Drum, Plastic: HDPE or steel/PE inliner , 230 kg

Drum, steel with PE inliner , 60 kg

Bottle, Glass , 1 kg
Bottle, Plastic: PE , 1 kg

only packaging for customer sampling, not intended for sales material

4.4.1 Use-specific instructions for use

none

4.4.2 Use-specific risk mitigation measures

For direct addition of Protectol GA 50 to paints and coatings: The person responsible for the placing on the market of treated articles shall ensure that the label of these directly preserved paints and coatings provides the following information: In order to avoid soil contamination during spray application of the treated articles (paints and coatings) cover ground adjacent to the wall with plastic sheet unless the ground is impermeable hardstanding. Use chemical resistant gloves (glove material to be specified by the authorisation holder within the product information) and a protective coverall (at least TN3, EN 14605; coverall material to be specified by the authorisation holder within the product information; 5% penetration) and RPE (10 % penetration; APF 10) for painting using spray application; For rolling/brush application no PPE is required but use of chemical resistant gloves (glove material to be specified by the authorisation holder within the product information) is recommended.

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

none

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

none

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

none

4.5 Use description

Use 5 - Preservation of additives for the production of leather and textiles

Product type	PT06 - Preservatives for products during storage (Preservatives)
Where relevant, an exact description of the authorised use	Preservativation of additives for the production of leather and textiles.
Target organism(s) (including development stage)	Scientific name: - Common name: Bacteria Development stage: -
Field(s) of use	Indoor industrial setting, automatic dosing via pump and dosing line
Application method(s)	Method: single addition to containers and vessels Detailed description: single dose of liquid to the chemical mixture in vessels or added to drums, canisters etc. via pumps and dosing lines during manufacture Method: single addition to containers and vessels Detailed description: pre-dilution of Protectol GA 50 in tanks to 24 % glutaral with water, afterwards single dose of liquid to the chemical mixture in vessels or added to drums, canisters etc. via pumps and dosing lines during manufacture
Application rate(s) and frequencies	Application Rate: The effective concentration is 50-1958 mg Protectol® GA 50 per kg. Dilution (%): 0 Number and timing of application: single application Application Rate: The effective concentration is 25-979 mg glutaraldehyde per kg. Dilution (%): 50 Number and timing of application: single application
Category(ies) of users	Industrial
Pack sizes and packaging material	iso tank container, stainless steel (no inliner) , 3-30 m^3 container or road tanker IBC (intermediate bulk container), Plastic: HDPE , 1100 kg Drum, Plastic: HDPE or steel/PE inliner , 230 kg Drum, steel with PE inliner , 60 kg Bottle, Glass , 1 kg

Bottle, Plastic: PE , 1 kg

only packaging for customer sampling, not intended for sales material

4.5.1 Use-specific instructions for use

none

4.5.2 Use-specific risk mitigation measures

The person responsible for the placing on the market of treated articles shall ensure that the label of these treated articles provides the following information: During textile and leather treatment use chemical resistant gloves (glove material to be specified by the authorisation holder within the product information) and a protective coverall (at least TN3, EN 14605; coverall material to be specified by the authorisation holder within the product information; 5% penetration). Waste water must be treated according to industry standards defined in the BAT documents for textile and leather industry.

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

none

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

none

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

none

4.6 Use description

Use 6 - Preservation of hydrotesting fluids

Product type	PT11 - Preservatives for liquid-cooling and processing systems (Preservatives)
Where relevant, an exact description of the authorised use	Prevent microbially induced deterioration and corrosion in pipelines, vessels, boilers etc. during pressure tests after construction or maintenance

Target organism(s) (including development stage)	Scientific name: - Common name: deterioration and corrosion inducing bacteria Development stage: -
Field(s) of use	Outdoor industrial setting, automatic dosing via pump and dosing line
Application method(s)	Method: single addition to the water Detailed description: single dose of liquid to the testing water via automated pumps and dosing lines Method: single addition to the water Detailed description: pre-dilution of Protectol GA 50 in tanks to 24 % glutaral with water, afterwards single dose of liquid to the testing water via automated pumps and dosing lines
Application rate(s) and frequencies	Application Rate: The effective concentration is 25-4000 mg Protectol® GA 50 per L water. Dilution (%): 0 Number and timing of application: single application Application Rate: The effective concentration is 12.5-2000 mg glutaraldehyde per L water. Dilution (%): 50 Number and timing of application: single application
Category(ies) of users	Industrial
Pack sizes and packaging material	iso container (tanktainer), stainless steel (no inliner) , 3-30 m³ container or road tanker IBC (intermediate bulk container), Plastic: HDPE , 1100 kg Drum, Plastic: HDPE or steel/PE inliner , 230 kg Drum, steel with PE inliner , 60 kg Bottle, Glass , 1 kg Bottle, Plastic: PE , 1 kg only packaging for customer sampling, not intended for sales material

4.6.1 Use-specific instructions for use

If discharged into seawater 0.2 mg/L glutaraldehyde must not be exceeded in the hydrotesting fluids. This concentration can be achieved either by slow release and/or long retention times resulting indegradation of glutaraldehyde and/or by dilution and/or by addition of sodium bisulphite at pH 5 (release after at least 20 minutes) or addition of sodium hydroxide to pH 12 (release after at least 10-16 hours) as degradation aids. Hydrotest water containing up to 750 mg/L glutaraldehyde after the pressure test can be used for re-injection. Run lab test to determine the soiling dependent dosage and degradation rate in use.

4.6.2 Use-specific risk mitigation measures

If discharged into seawater 0.2 mg/L glutaraldehyde must not be exceeded in hydrotesting fluids. To avoid the development of resistance: in addition to the requirements in the general instructions for use, check the efficacy of the product on site. If needed, causes of reduced efficacy must be investigated to ensure that there is no resistance or to identify potential resistance.

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

none

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

none

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

none

4.7 Use description

Use 7 - Preservation of production and injection water in oilfield applications

Product type	PT11 - Preservatives for liquid-cooling and processing systems (Preservatives)
Where relevant, an exact description of the authorised use	Prevent microbially induced deterioration and corrosion in (produced) water (re-)injection systems in water treatment units, in the produced water system, in gas/crude production, transmission and storage systems, and during pipeline pigging and scraping operations.
Target organism(s) (including development stage)	Scientific name: - Common name: deterioration and corrosion inducing bacteria Development stage: -

Field(s) of use

	Outdoor industrial setting, automatic dosing via pump and dosing line
Application method(s)	Method: addition to vessels, tanks, pipelines etc. Detailed description: addition of liquid to the water phases via automated pumps and dosing lines Method: addition to vessels, tanks, pipelines etc. Detailed description: pre-dilution of Protectol GA 50 in tanks to 24 % glutaral with water, afterwards addition of liquid to the water phases via automated pumps and dosing lines
Application rate(s) and frequencies	Application Rate: The effective concentration is 25-1500 mg Protectol® GA 50 per L water. Dilution (%): 0 Number and timing of application: For injection water and production water re-injection, pipeline and storage tank uses: min 25 mg/L - max. 1500 mg/L for 1 h daily as shock dose or max. 1500 mg/L for 2 h once a week or max. 1200 mg/L for 6 hours every two weeks or other dosing regimens resulting in the same or lower daily average concentrations. Min. 24 hshut in. If Protectol GA 50 is added to produced water intended to be disposed to the sea, dose min 25 mg/L - 36 mg Protectol GA 50 per liter water daily with a dosing time of 2 hours or weekly 25 mg/L - max. 260 mg/L Protectol GA 50 with a dosing time of 2 hours. Contact time of min. 24 hours should be observed before discharge. Application Rate: The effective concentration is 12.5-750 mg glutaraldehyde per L water. Dilution (%): 50 Number and timing of application: For injection water and production water re-injection, pipeline and storage tank uses: min. 50 mg/L - max. 3000 mg/L prediluted Protectol GA 50 for 1 h daily as shock dose or max. 3000 mg/L for 2 h once a week or max. 2400 mg/L for 6 hours every two weeks or other dosing regimens resulting in the same or lower daily average concentrations. Min 24 h shut in. If prediluted Protectol GA 50 is added to produced water intended to be disposed to the sea, dose min 50 mg/L - 72 mg prediluted Protectol GA 50 per liter water daily with a dosing time of 2 hours or weekly 50 mg/L - max. 520 mg/L prediluted Protectol GA 50 with a dosing time of 2 hours. Contact time of min. 24 hours should be observed before discharge.
Category(ies) of users	Industrial
Pack sizes and packaging material	Iso tank container, stainless steel (no inliner) , 3-30 m³ container or road tanker IBC (intermediate bulk container), Plastic: HDPE , 1100 kg Drum, Plastic: HDPE or steel/PE inliner , 230 kg

Drum, steel with PE inliner , 60 kg

Bottle, Glass , 1 kg
Bottle, Plastic: PE , 1 kg

only packaging for customer sampling, not intended for sales material

4.7.1 Use-specific instructions for use

If Protectol® GA 50 is added to production water intended to be disposed to the sea and not re-injected, use retention time of at least 24 hours (dependent on degradation rate) in order to achieve sufficient degradation. Run lab test to determine the soiling/degradation rate dependent dosage. Check glutaraldehyde degradation to determine the water release rate when releasing into seawater and/or the in-situ dilution at the outlet with water necessary and/or the rate of glutaraldehyde degradation.

4.7.2 Use-specific risk mitigation measures

If discharged into seawater 0.2 mg/L glutaraldehyde must not be exceeded in the production water. To avoid the development of resistance: in addition to the requirements in the general instructions for use, check the efficacy of the product on site. If needed, causes of reduced efficacy must be investigated to ensure that there is no resistance or to identify potential resistance.

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

none

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

none

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

none

4.8 Use description

Use 8 - Slimicide for hydrotesting fluids in oilfield applications

Product type	PT12 - Slimicides (Preservatives)
Where relevant, an exact description of the authorised use	To avoid microbially induced corrosion and spoilage by destroying biofilm in pipelines, vessels, boilers etc. during pressure tests after construction or maintenance
Target organism(s) (including development stage)	Scientific name: - Common name: biofilm forming bacteria Development stage: -
Field(s) of use	Outdoor industrial setting, automatic dosing via pump and dosing line
Application method(s)	Method: single addition to the water Detailed description: single dose of liquid to the testing water via automated pumps and dosing lines Method: single addition to the water Detailed description: pre-dilution of Protectol GA 50 in tanks to 24 % glutaral with water, afterwards single dose of liquid to the testing water via automated pumps and dosing lines
Application rate(s) and frequencies	Application Rate: The effective concentration is 25-4000 mg Protectol® GA 50 per L water. The minimum effective concentration tested for biofilm 312.5 mg Protectol® GA 50 per L water after 4 h or 20 mg Protectol® GA 50 per L water after 24 h. Dilution (%): 0 Number and timing of application: single application, min. 24 h shut-in Application Rate: The effective concentration is 12.5-2000 mg glutaraldehyde per L water. The minimum effective concentration tested for biofilm 156 mg glutaraldehyde per L water after 4 h or 10 mg glutaraldehyde per L water after 24 h. Dilution (%): 50 Number and timing of application: single application, min. 24 h shut-in
Category(ies) of users	Industrial
Pack sizes and packaging material	iso tank container, stainless steel ,(no inliner) 3-30 m^3 container or road tanker IBC (intermediate bulk container), Plastic: HDPE , 1100 kg Drum, Plastic: HDPE or steel/PE inliner , 230 kg Drum, steel with PE inliner , 60 kg Bottle, Glass , 1 kg Bottle, Plastic: PE , 1 kg

only packaging for customer sampling, not intended for sales material

4.8.1 Use-specific instructions for use

If discharged into seawater 0.2 mg/L glutaraldehyde must not be exceeded in the hydrotesting fluids. This concentration can be achieved either by slow release and/or long retention times resulting in degradation of glutaraldehyde and/or by dilution and/or by addition of sodium bisulphite at pH 5 (release after at least 20 minutes) or addition of sodium hydroxide to pH 12 (release after at least 10-16 hours) as degradation aids. Hydrotest water containing up to 750 mg/L glutaraldehyde after the pressure test can be used for re-injection.

Run lab test to determine the soiling dependent dosage and degradation rate in use.

4.8.2 Use-specific risk mitigation measures

If discharged into seawater 0.2 mg/L glutaraldehyde must not be exceeded in hydrotesting fluids. To avoid the development of resistance: in addition to the requirements in the general instructions for use, check the efficacy of the product on site. If needed, causes of reduced efficacy must be investigated to ensure that there is no resistance or to identify potential resistance.

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

none

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

none

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

none

4.9 Use description

Use 9 - Slimicide for production and injection water in oilfield applications

Product type	PT12 - Slimicides (Preservatives)

Where relevant, an exact description of the authorised use	To avoid microbially induced corrosion and spoilage by destroying biofilm in (produced) water (re–)injection systems in water treatment units, in the produced water system, in gas/crude production, transmission and storage systems and during pipeline pigging and scraping operations.
Target organism(s) (including development stage)	Scientific name: - Common name: biofilm forming bacteria Development stage: -
Field(s) of use	Outdoor industrial setting, automatic dosing via pump and dosing line
Application method(s)	Method: addition to vessels, tanks, pipelines etc. Detailed description: addition of liquid to the water phases via automated pumps and dosing lines Method: addition to vessels, tanks, pipelines etc. Detailed description: pre-dilution of Protectol GA 50 in tanks to 24 % glutaral with water, afterwards addition of liquid to the water phases via automated pumps and dosing lines
Application rate(s) and frequencies	Application Rate: The effective concentration is 25-1500 mg Protectol® GA 50 per L water. The minimum effective concentration tested for biofilm 312.5 mg Protectol® GA 50 per L water after 4 h or 20 mg Protectol® GA 50 per L water after 24 h. Dilution (%): 0 Number and timing of application: For injection water and production water re-injection, pipeline and storage tank uses: min. 25 mg/L - max. 1500 mg/L for 1 h daily as shock dose or max. 1500 mg/L for 2 h once a week or max. 1200 mg/L for 6 hours every two weeks or other dosing regimens resulting in the same or lower daily average concentrations. Min 24 h shut in. If Protectol GA 50 is added to produced water intended to be disposed to the sea, dose min 25 mg/L - 36 mg Protectol GA 50 per liter water daily with a dosing time of 2 hours or weekly 25 mg/L - max. 260 mg/L Protectol GA 50 with a dosing time of 2 hours. Contact time of min. 24 hours should be observed before discharge. Application Rate: The effective concentration is 12.5-750 mg glutaraldehyde per L water. The minimum effective concentration tested for biofilm 156 mg glutaraldehyde per L water after 4 h or 10 mg glutaraldehyde per L water after 24 h. Dilution (%): 50 Number and timing of application: For injection water and production water re-injection, pipeline and storage tank uses: min. 50 mg/L - max. 3000 mg/L prediluted Protectol GA 50 for 1 h daily as shock dose or max. 3000 mg/L for 2 h once a week or max. 2400 mg/L for 6 hours every two weeks or other dosing regimens resulting in the same or lower daily average concentrations. Min 24 h shut in. If prediluted Protectol GA 50 is added to produced water intended to be disposed to the sea, dose min 50 mg/L - 72 mg prediluted Protectol GA 50 per liter water daily with a dosing time of 2 hours or weekly 50 mg/L - max. 520 mg/L prediluted Protectol GA 50 with a dosing time of 2 hours. Contact time of min. 24 hours should be observed before discharge.

Category(ies) of users	Industrial
Pack sizes and packaging material	iso tank container, stainless steel (no inliner), 3-30 m^3 container or road tanker IBC (intermediate bulk container), Plastic: HDPE , 1100 kg Drum, Plastic: HDPE or steel/PE inliner , 230 kg Drum, steel with PE inliner , 60 kg Bottle, Glass , 1 kg Bottle, Plastic: PE , 1 kg only packaging for customer sampling, not intended for sales material

4.9.1 Use-specific instructions for use

If protectol GA 50 is added to produced water intended to be disposed to the sea and not re-injected, use retention time of at least 24 hours (dependent on degradation rate) in order to achieve suffiecient degradation. Run lab test to determine the soiling/degradation rate dependent dosage. Check glutaraldehyde degradation to determine the water release rate when releasing into seawater and/or the in-situ dilution at the outlet with water necessary and/or the rate of glutaraldehyde degradation.

4.9.2 Use-specific risk mitigation measures

If discharged into seawater 0.2 mg/L glutaraldehyde must not be exceeded in the production water. To avoid the development of resistance: in addition to the requirements in the general instructions for use, check the efficacy of the product on site. If needed, causes of reduced efficacy must be investigated to ensure that there is no resistance or to identify potential resistance.

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

none

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

none

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

none

4.10 Use description

Use 10 - Slimicide for paper industry, wet-end

Product type	PT12 - Slimicides (Preservatives)
Where relevant, an exact description of the authorised use	For use as paper slimicide for continous paper production, for slime control/prevention for process water and short term protection of wet stock during machine shut down
Target organism(s) (including development stage)	Scientific name: - Common name: biofilm forming bacteria Development stage: -
Field(s) of use	Indoor industrial setting, automatic dosing via pump and dosing line
Application method(s)	Method: addition to vessels, tanks, circuits etc. Detailed description: automatic addition of liquid into the white water circuit, head box or machine chest via pumps and dosing lines Method: addition to vessels, tanks, water circuits etc. Detailed description: pre-dilution of Protectol GA 50 in tanks to 24 % glutaral with water, afterwards automatic addition of liquid into the white water circuit, head box or machine chest via pumps and dosing lines
Application rate(s) and frequencies	Application Rate: shock dose: 92-400 mg/L Protectol® GA 50; intermittent dosage: 92-300 mg/L Protectol® GA 50 Dilution (%): 0 Number and timing of application: single dosage over 1 hour or repeat every 6-8 hours (intermittent dosage) Application Rate: shock dose: 46-200 mg/L glutraldehyde in-use concentration; intermittent dosage: 46-150 mg/L glutaraldehyde in-use concentration. A shock dose is used to gain control in case of severe microbial infection and the dosage is lowered when control is achieved. Dilution (%): 50 Number and timing of application: single dosage over 1 hour or repeat every 6-8 hours (intermittent dosage)

Category(ies) of users

	Industrial
Pack sizes and packaging material	iso tank container, stainless steel (no inliner), 3-30 m^3 container or road tanker IBC (intermediate bulk container), Plastic: HDPE , 1100 kg Drum, Plastic: HDPE or steel/PE inliner , 230 kg Drum, steel with PE inliner , 60 kg Bottle, Glass , 1 kg Bottle, Plastic: PE , 1 kg only packaging for customer sampling, not intended for sales material

4.10.1 Use-specific instructions for use

none

4.10.2 Use-specific risk mitigation measures

A protective coverall (at least TN3, EN 14605; coverall material to be specified by the authorisation holder within the product information; 10% penetration) and chemical resistant gloves (glove material to be specified by the authorisation holder within the product information) are required while cleaning/maintenance work on pulp tanks and RPE (2.5 % penetration, APF 40) should be used. Ensure low level of containement. Application in the paper industry is only allowed when waste water is purified at least biologically before discharge to surface water or sea water. To avoid the development of resistance: in addition to the requirements in the general instructions for use, check the efficacy of the product on site. If needed, causes of reduced efficacy must be investigated to ensure that there is no resistance or to identify potential resistance.

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

none

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

none

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

none

4.11 Use description

Use 11 - Slimicide for paper industry, paper de-inking process

Product type	PT12 - Slimicides (Preservatives)
Where relevant, an exact description of the authorised use	For papermill de-inking use Protectol® GA 50 for the control of slime and microbial release of catalase enzyme interfering with the de-inking process during paper recycling
Target organism(s) (including development stage)	Scientific name: - Common name: biofilm forming bacteria Development stage: -
Field(s) of use	Indoor industrial setting, automatic dosing via pump and dosing line
Application method(s)	Method: addition to tanks, vessels, water circuits etc. Detailed description: automatic addition of liquid to vessels, tanks or water circuits of the de-inking plant via pumps and dosing lines Method: addition to vessels, tanks, water circuits Detailed description: pre-dilution of Protectol GA 50 in tanks to 24 % glutaral with water, afterwards automatic addition of liquid to vessels, tanks or water circuits of the de-inking plant.via pumps and dosing lines
Application rate(s) and frequencies	Application Rate: The effective concentration is 92-250 mg Protectol® GA 50 per L Dilution (%): 0 Number and timing of application: up to 4 times per day lasting 30 minutes Application Rate: The effective concentration is 46-125 mg glutaraldehyde per L water Dilution (%): 50 Number and timing of application: up to 4 times per day lasting 30 minutes
Category(ies) of users	Industrial
Pack sizes and packaging material	iso tankcontainer (tanktainer), stainless steel (no inliner) , 3-33 m³ IBC (intermediate bulk container), Plastic: HDPE , 1100 kg

Drum, Plastic: HDPE or steel/PE inliner , 230 kg

Drum, steel with PE inliner , 60 kg

Bottle, Plastic: PE , 1 kg
Bottle, Plastic: PE , 1 kg

only packaging for customer sampling, not intended for sales material

4.11.1 Use-specific instructions for use

none

4.11.2 Use-specific risk mitigation measures

A protective coverall (at least TN3, EN 14605; coverall material to be specified by the authorisation holder within the product information; 10% penetration) and chemical resistant gloves (glove material to be specified by the authorisation holder within the product information) are required while cleaning/maintenance work on pulp tanks and RPE (2.5 % penetration, APF 40) should be used. Application in the paper industry is only allowed when waste water is purified at least biologically before discharge to surface water or sea water. To avoid the development of resistance: in addition to the requirements in the general instructions for use, check the efficacy of the product on site. If needed, causes of reduced efficacy must be investigated to ensure that there is no resistance or to identify potential resistance.

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

none

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

none

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

none

5. General directions for use

5.1. Instructions for use

For the control of micro-organisms responsible for spoilage, deterioration, gas evolution, odour, color/pH/viscosity changes, disintegration of formulations, slime, and corrosion. Protectol® GA 50 should be added directly to the water phase where adequate mixing will ensure quick dissolution. In hot process, allow the temperature to fall below 40 °C prior to addition.

Microbiological tests to prove adequacy of preservation have to be undertaken by the user of Protectol® GA 50 in order to determine the effective dose of the preservative for the specific matrix/location/system. If needed, consult the manufacturer of the preservative product.

5.2. Risk mitigation measures

When connecting pump to Protectol® GA 50 drum wear protective chemical resistant gloves (glove material to be specified by the authorisation holder within the product information), a protective coated coverall (at least TN3, EN 14605; coverall material to be specified by the authorisation holder within the product information; 10 % penetration), eye protection and RPE (2.5 % penetration; APF 40).

To avoid the development of resistance: Always read the label or leaflet before use and follow all the instructions provided. The authorization holder should report any observed incidents related to the efficacy to the Competent Authorities (CA). The user should ensure general cleanliness and hygiene during application. The user should prevent as far as possible the release of the biocide into the environment to avoid non-effective concentrations in the environment which might select for resistance in the environment. If resistance does occur, the user should consider cycling between different active substances.

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

Likely direct or indirect effects may include:
Skin and eye contact: Irritation to severe burns of the skin and eyes. May induce eye lacrimation, skin sensitization and/or allergic dermatitis.
Mouth contact/ingestion: Irritation to corrosion of the gastrointestinal tract. May include nausea, vomiting, ulceration of the esophagus and/or stomach with subsequent perforation, hematemesis and/or internal bleeding.
Inhalation/aspiration: Irritation to corrosion of the respiratory tract. May include coughing, rhinitis, coryza, epistaxis, pulmonary oedema, bronchospasm, respiratory distress and/ or asthma.
Other clinical manifestations may include; headache, tachycardia, palpitations, hypotension and depression of the CNS.

First aid instructions:
Relocate individual form contamination site/ source; remove all contaminated clothing avoiding exposure to yourself and/ or others.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
IF INHALED: Remove person to fresh air and keep confortable for breathing. Keep the person calm, maintain body temperature, monitor breathing, start artificial respiration if necessary. Immediately call a POISON CENTER/doctor.
IF ON SKIN(or hair): Wash skin with plenty of water without rubbing.
IF IN EYES: Rinse immediately with water at least for 15 minutes under running water with eyelids held open. Always check and remove contact lenses.
Immediately call a POISON CENTER/doctor.
Take off contaminated clothing and wash it before reuse.
If symptoms persist or worsen seek medical advice/attention.
NEVER give anything by mouth to an impaired or unconscious individual, place in recovery (left sideways) position with the knees bent and transport to a healthcare centre, bring the label or container if possible.
Never leave an intoxicated individual unattended!
Advice for medical and healthcare personnel:
Monitor vital signs for at least 24 hours and provide symptomatic and supportive treatment following local protocols.
In case of ingestion evaluate realization of endoscopy and immediate dilution and/or decontamination.
The use of ipecac syrup is contraindicated.
If inhaled, administer a corticosteroid from a controlled/ metered dose inhaler.
No known antidote is currently available. Pulmonary odema prophylaxis.

5.4. Instructions for safe disposal of the product and its packaging

Dispose of contents to hazardous or special waste collection point.
Incinerate in suitable incineration plant, observing local authority regulations.

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

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

Store in well-ventilated place. Keep container tightly closed.

Keep under inert gas.

Storage temperature: ≤ 25 °C
Shelf-life: 12 months

6. Other information

The minimum content of pure active substance in the product is 48.5% (w/w).

III. Etiketten skal indeholde nedenstående oplysninger. Oplysninger i citationstegn skal angives ordret:

1) I hovedfeltet:
”Konserveringsmiddel og slimicid

Må kun anvendes som konserveringsmiddel til bekæmpelse af bakterier i vaske- og rengøringsmidler og midler til brug i papir-, tekstil- og læderproduktion, til bekæmpelse af bakterier og gær i maling og coating, til bekæmpelse af bakterier i væske i behandlingssystemer i olieproduktion og som slimicid til bekæmpelse af biofilmdannende bakterier i papir- og olieproduktion.”

2) I advarselsfeltet:
”FARE

Giftig ved indtagelse.
Livsfarlig ved indånding.
Forårsager svære forbrændinger af huden og øjenskader.
Kan forårsage allergi-eller astmasymptomer eller åndedrætsbesvær ved indånding.
Kan forårsage allergisk hudreaktion.
Giftig for vandlevende organismer, men langvarige bivirkninger.

Ætsende for luftvejene.

Indånd ikke spray.

Der må ikke spises, drikkes eller ryges under brugen af dette produkt.

Tilsmudset arbejdstøj bør ikke fjernes fra arbejdspladsen.

I tilfælde af utilstrækkelig ventilation, anvend åndedrætsværn.

Opbevares på et godt ventileret sted. Hold beholderen tæt lukket.

Undgå udledning til miljøet.

Udslip opsamles.

Bær beskyttelsestøj/øjenbeskyttelse/ansigtsbeskyttelse. Bær kemisk resistente beskyttelseshandsker ved brug af produktet.”
Handskematerialet skal angives af godkendelsesindehaveren i produktdatabladet.

”Vask huden grundigt med sæbe og vand efter brug.

Alt tilsmudset tøj tages af og vaskes inden genanvendelse.

Overtrædelse af nedenstående særligt fremhævede forskrifter kan medføre straf:

Må kun anvendes som konserveringsmiddel til bekæmpelse af bakterier i vaske- og rengøringsmidler og midler til brug i papir-, tekstil- og læderproduktion, til bekæmpelse af bakterier og gær i maling og coating, til bekæmpelse af bakterier i væske i processystemer i papir- og olieproduktion og som slimicid til bekæmpelse af biofilmdannende bakterier i papir- og olieproduktion.

Må ikke anvendes mod andre skadevoldere og ikke i højere doseringer end de i brugsanvisningen nævnte.

Brug kun udendørs eller i et rum med god udluftning.

Må ikke tømmes i kloakafløb.

Opbevares under lås og utilgængeligt for børn.

Må ikke opbevares sammen med fødevarer, drikkevarer og foderstoffer.

Kemisk resistente beskyttelseshandsker, beskyttelsestøj (minimum TN3, EN14605, 10 % penetration), øjenbeskyttelse og åndedrætsværn (2,5 % penetration, APF 40) skal anvendes ved sammenkobling af pumpe og produkt ved generel brug. Tøj- og handskemateriale skal angives af godkendelsesindehaveren i produktdatabladet.

Den person, der er ansvarlig for markedsføring af malinger og coatings, der er konserveret med dette produkt, skal sikre, at mærkningen af disse malinger og coatings indeholder følgende oplysninger:

- Jorden skal afdækkes ved påføring af konserveret maling og coating, således at eventuelt spild opsamles.
- Kemisk resistente beskyttelseshandsker, beskyttelsestøj (minimum TN3, EN 14605, 5% penetration) og åndedrætsværn (10% penetration, APF 10) skal anvendes ved spraypåføring af maling. Tøj- og handskemateriale skal angives af godkendelsesindehaveren i produktdatabladet.

Den person, der er ansvarlig for markedsføring af papirmasse, der er konserveret med dette produkt, skal sikre, at mærkningen af dette indeholder følgende oplysninger:

- Kemisk resistente beskyttelseshandsker skal anvendes ved håndtering af produktet, og beskyttelsestøj (minimum TN3, EN 14605, 10% penetration) og åndedrætsværn (2,5% penetration, APF 40) skal anvendes ved læsning og aflæsning af opslæmningstanke med fuldt konserveret papirmasse (cellulose og additiver), hvis opslæmningsproceduren ikke er automatisk. Tøj- og handskemateriale skal angives af godkendelsesindehaveren i produktdatabladet.

Den person, der er ansvarlig for markedsføring af additiver til læder- og tekstilproduktion, der er konserveret med dette produkt, skal sikre, at mærkningen af disse additiver indeholder følgende oplysninger:

- Kemisk resistente beskyttelseshandsker og beskyttelsestøj (minimum TN3, EN 14605, 5% penetration) skal anvendes ved behandling af tekstiler og læder. Tøj- og handskemateriale skal angives af godkendelsesindehaveren i produktdatabladet.

Behandlet testvand fra hydrotest og produktionsvand må ikke udledes til havvand, hvis indholdet af glutaraldehyd overstiger 0,2 mg/L.

Ved brug i papirproduktion, skal spildevand som minimum gennemgå biologisk rensning inden udledning til overfladevand.

Ved rengøring og vedligeholdelse af papirmassebeholdere skal anvendes kemisk resistente beskyttelseshandsker, beskyttelsestøj (minimum TN3, EN14605, 10 % penetration) og åndedrætsværn (2,5 % penetration, APF 40). Tøj- og handskemateriale skal angives af godkendelsesindehaveren i produktdatabladet.

Emballagen kan genanvendes efter grundig rengøring."
Farepiktogrammerne GHS05, GHS06 og GHS09.

Miljøstyrelsen henleder opmærksomheden på, at godkendelsesindehaver skal anføre oplysninger om førstehjælp, herunder:

I TILFÆLDE AF INDTAGELSE: Skyl munden med vand og ring omgående til en GIFTINFORMATION eller læge. Fremkald IKKE opkastning.

VED KONTAKT MED HUDEN (eller håret): Alt tilsmudset tøj tages straks af. Skyl/brus huden med vand.

VED INDÅNDING: Flyt personen til et sted med frisk luft og sørg for, at vejrtrækningen lettes.

VED KONTAKT MED ØJNENE: Skyl forsigtigt med vand i flere minutter. Fjern eventuelle kontaktlinser, hvis dette kan gøres let. Fortsæt skylning.

Ved luftvejssymptomer: Ring til en GIFTINFORMATION eller læge.

Skyl omgående tilsmudset tøj og hud med rigeligt vand, før tøjet fjernes.

3) I deklarationsfeltet:
a) Teksten ”konserveringsmiddel og slimicid BPR-reg. nr. 847-1. Aktivstof og biocidholdigt produkt er godkendt efter biocidforordningen (Forordning (EU) nr. 528/2012)”.
b) Oplysning om præparattype: ”flydende koncentrat” for dette præparat.
c) Indholdet af aktivstof i vægtprocent (% w/w) og g/L ved 20 °C
d) Udløbsdatoen skal anføres. Denne dato må højst være 12 måneder efter produktionsdatoen. Etikettens dato kan udformes som en henvisning til en produktionsdato andetsteds på emballagen.
e) Batchnummer eller – betegnelse skal anføres.
f) Pakningsstørrelse i L.
g) Godkendelsesindehavers navn og adresse.

4) Brugsanvisningen:

Oplysninger om skadevoldere, anvendelsesområde og doseringer.
Følgende retningslinjer gælder i forhold til bortskaffelse.
Der skal mærkes med sikkerhedssætning P501: ”Indholdet/beholderen bortskaffes i overensstemmelse med kommunale regler for affaldshåndtering.”
Derudover skal mærkningen ske efter retningslinjerne:
”Tom emballage og rester skal afleveres til den kommunale affaldsordning for farligt affald.”