

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : BioVX
 Type of product : Biocidal products

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Biocidal product

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier

THESEO Deutschland GmbH
 Kolpingstraße 4
 49835 Wietmarschen - Germany
 T +49 59 25 / 99 33 - 0 - F +49 59 25 / 14 33
info@ewabo.de

Email competent person

sds@kft.de

1.4. Emergency telephone number

Emergency number : National Health Service (NHS)
 24 hour national number consumer
 England and Scotland: 111
 Wales: 0845 46 47
 Northern Ireland: call your local General Practitioner

 Call 999 if there is a life-threatening incident.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4 H302
 Skin corrosion/irritation, Category 1 H314
 Specific target organ toxicity — Single exposure, Category 3, H335
 Respiratory tract irritation
 Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411
 Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Harmful if swallowed. May cause respiratory irritation. Causes severe skin burns and eye damage. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

GHS07

GHS09

Signal word (CLP) : Danger

Hazardous ingredients : pentapotassium bis(peroxymonosulphate) bis(sulphate); malic acid; sulphamidic acid; dipotassium peroxodisulphate

Hazard statements (CLP) : H302 - Harmful if swallowed.
 H314 - Causes severe skin burns and eye damage.
 H335 - May cause respiratory irritation.
 H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)	: P260 - Do not breathe dust. P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER, a doctor. P363 - Wash contaminated clothing before reuse. P391 - Collect spillage. P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up. P501 - Dispose of contents, container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements	: EUH208 - Contains dipotassium peroxodisulphate, (R)-p-Mentha-1,8-diene. May produce an allergic reaction.
Extra phrases	: The additional label requirements of directive EU 528/2012 about the available on the market and use of biocidal products in article 69 have to be observed.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
 This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
pentapotassium bis(peroxymonosulphate) bis(sulphate)	(CAS-No.) 70693-62-8 (EC-No.) 274-778-7 (REACH-no) 01-2119485567-22-xxxx	>=50 - <70	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412
Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	(EC-No.) 932-051-8 (REACH-no) 01-2119565112-48-xxxx	>=10 - <20	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412
malic acid	(CAS-No.) 6915-15-7 (EC-No.) 230-022-8 (REACH-no) 01-2119906954-31-xxxx	>=5 - <10	Eye Irrit. 2, H319
sulphamidic acid	(CAS-No.) 5329-14-6 (EC-No.) 226-218-8 (EC Index-No.) 016-026-00-0 (REACH-no) 01-2119488633-28-xxxx	>=2.5 - <5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412
dipotassium peroxodisulphate	(CAS-No.) 7727-21-1 (EC-No.) 231-781-8 (EC Index-No.) 016-061-00-1	>=1 - <2.5	Ox. Sol. 3, H272 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412
(R)-p-Mentha-1,8-diene	(CAS-No.) 5989-27-5 (EC-No.) 227-813-5 (EC Index-No.) 601-029-00-7 (REACH-no) 01-2119529223-47-xxxx	>=0.1 - <1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell. Do not apply mouth-to-mouth resuscitation.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Burns. Erythema.
Symptoms/effects after eye contact	: Serious damage to eyes. Can cause blindness.
Symptoms/effects after ingestion	: Burns.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Symptoms of poisoning may not appear for several hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Strong water jet.

5.2. Special hazards arising from the substance or mixture

Explosion hazard	: Dust may form explosive mixture in air.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon monoxide. Carbon dioxide. Metal oxides. Nitrogen oxides. Sulphur oxides.

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid dust formation. Do not breathe dust.
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust, spray.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid sub-soil penetration. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
Other information	: Disposal must be done according to official regulations.

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according to Regulation (EC) No. 1907/2006 (REACH)

6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Dust may form flammable and explosive mixture with air.
Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe dust, spray. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep only in original container. Protect from sunlight. Store tightly closed in a dry and cool place.
Incompatible materials : oxidizing materials. Reducing agents.
Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Biocidal product.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

pentapotassium bis(peroxymonosulphate) bis(sulphate) (70693-62-8)

DNEL/DMEL (Workers)

Acute - systemic effects, dermal	80 mg/kg bodyweight/day
Acute - systemic effects, inhalation	50 mg/m ³
Acute - local effects, dermal	0.449 mg/cm ²
Acute - local effects, inhalation	50 mg/m ³
Long-term - systemic effects, dermal	20 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.28 mg/m ³
Long-term - local effects, inhalation	0.28 mg/m ³

DNEL/DMEL (General population)

Acute - systemic effects, dermal	40 mg/kg bodyweight
Acute - systemic effects, inhalation	25 mg/m ³
Acute - systemic effects, oral	10 mg/kg bodyweight
Acute - local effects, dermal	0.22 mg/cm ²
Acute - local effects, inhalation	25 mg/m ³
Long-term - systemic effects, oral	10 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.14 mg/m ³
Long-term - systemic effects, dermal	10 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.14 mg/m ³

PNEC (Water)

PNEC aqua (freshwater)	0.022 mg/l
PNEC aqua (marine water)	0.002 mg/l
PNEC aqua (intermittent, freshwater)	0.011 mg/l

pentapotassium bis(peroxymonosulphate) bis(sulphate) (70693-62-8)	
PNEC (Sediment)	
PNEC sediment (freshwater)	0.078 mg/kg dwt
PNEC sediment (marine water)	0.008 mg/kg dwt
PNEC (Soil)	
PNEC soil	1 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	44.44 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	108 mg/l
malic acid (6915-15-7)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	5.2 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	36.6 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	2.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	9 mg/m ³
Long-term - systemic effects, dermal	2.6 mg/kg bodyweight/day
sulphamidic acid (5329-14-6)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	10 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	70.5 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	17.4 mg/m ³
Long-term - systemic effects, dermal	5 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	1.8 mg/l
PNEC aqua (marine water)	0.18 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	8.36 mg/kg dwt
PNEC sediment (marine water)	0.84 mg/kg dwt
PNEC (Soil)	
PNEC soil	5 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	20 mg/l
dipotassium peroxodisulphate (7727-21-1)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	400 mg/kg bodyweight/day
Acute - systemic effects, inhalation	590 mg/m ³
Acute - local effects, dermal	2.248 mg/cm ²
Long-term - systemic effects, dermal	18.2 mg/kg bodyweight/day
Long-term - local effects, dermal	0.102 mg/cm ²
Long-term - systemic effects, inhalation	2.06 mg/m ³
Long-term - local effects, inhalation	2.06 mg/m ³

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dipotassium peroxodisulphate (7727-21-1)

DNEL/DMEL (General population)

Acute - systemic effects, dermal	200 mg/kg bodyweight
Acute - systemic effects, inhalation	295 mg/m ³
Acute - systemic effects, oral	1.124 mg/kg bodyweight
Acute - local effects, dermal	1.124 mg/cm ²
Acute - local effects, inhalation	295 mg/m ³
Long-term - systemic effects, oral	9.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.03 mg/m ³
Long-term - systemic effects, dermal	9.1 mg/kg bodyweight/day
Long-term - local effects, dermal	0.051 mg/cm ²
Long-term - local effects, inhalation	1.03 mg/m ³

PNEC (Water)

PNEC aqua (freshwater)	0.0763 mg/l
PNEC aqua (marine water)	0.011 mg/l
PNEC aqua (intermittent, freshwater)	0.763 mg/l

PNEC (Sediment)

PNEC sediment (freshwater)	0.275 mg/kg dwt
PNEC sediment (marine water)	0.0396 mg/kg dwt

PNEC (Soil)

PNEC soil	0.015 mg/kg dwt
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PNEC (STP)

PNEC sewage treatment plant	3.6 mg/l
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8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Chemically resistant protective gloves. Nitrile rubber. EN 374. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Eye protection:

Wear closed safety glasses. EN 166. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure

Skin and body protection:

Wear suitable protective clothing. EN 340

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Dust production: dust mask with filter type P2. EN 143.

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product. Keep away from food, drink and animal feeding stuffs. Apply emollient cream. Remove soiled clothing promptly.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance	: Powder.
Colour	: pink.
Odour	: Citrus fruits.
Odour threshold	: No data available
pH	: No data available
pH solution	: 1.5 - 2.75 (20 °C, 1 % Solution)
Relative evaporation rate (butylacetate=1)	: Not applicable
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: Not applicable
Relative vapour density at 20 °C	: Not applicable
Relative density	: 1.07
Solubility	: Water: Soluble
Log Pow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: Not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Reducing agents. Oxidation agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

ATE CLP (oral)	898.249 mg/kg bodyweight
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pentapotassium bis(peroxymonosulphate) bis(sulphate) (70693-62-8)

LD50 oral rat	500 mg/kg (OECD 423 method)
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402 method)

dipotassium peroxodisulphate (7727-21-1)

LD50 oral rat	742 mg/kg bodyweight (RA, OECD 401)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (RA, EPA OPP 81-2)

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Serious eye damage, category 1, implicit (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: Not classified. Not classified. (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Not relevant)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	: Not classified (Based on available data, the classification criteria are not met)
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.

pentapotassium bis(peroxymonosulphate) bis(sulphate) (70693-62-8)

LC50 fish 1	53 mg/l (96 h; Oncorhynchus mykiss; (OECD 203 method))
EC50 Daphnia 1	3.5 mg/l (48 h; Daphnia magna; (OECD 202 method))
ErC50 (algae)	> 1 mg/l (72 h; Selenastrum capricornutum; (OECD 201 method))
NOEC chronic crustacea	0.267 mg/l (28 d; Americamysis bahia)

Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide

LC50 fish 1	5.5 mg/l (96 h; Cyprinus carpio)
EC50 Daphnia 1	6.3 mg/l (48 h; Daphnia magna; (OECD 202 method))
EC50 72h algae	72 mg/l (Desmodesmus subspicatus; (OECD 201 method))
NOEC (chronic)	1.18 (21 d; Daphnia magna; (OECD 211 method); Read-across)
NOEC chronic fish	0.23 mg/l (72 d; Oncorhynchus mykiss; Read-across)
NOEC chronic algae	1.5 mg/l (Desmodesmus subspicatus; (OECD 201 method))

sulphamidic acid (5329-14-6)

LC50 fish 1	70.3 mg/l (96 h; Pimephelas promelas; (OECD 203 method))
EC50 Daphnia 1	71.6 mg/l (48 h; Daphnia magna; (OECD 202 method))
ErC50 (algae)	33.8 mg/l (72 h; Desmodesmus subspicatus; (OECD 201 method))
NOEC chronic fish	>= 60 mg/l (34 d; Danio rerio; (OECD 210 method))
NOEC chronic crustacea	19 mg/l (21 d; Daphnia magna; (OECD 211 method))
NOEC chronic algae	18 mg/l (72 h; Desmodesmus subspicatus; (OECD 201 method))

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dipotassium peroxodisulphate (7727-21-1)

LC50 fish 1	76.3 mg/l (96 h; Oncorhynchus mykiss, FIFRA Guideline 72-1)
EC50 Daphnia 1	120 mg/l (RA, Daphnia magna, FIFRA Guideline 72-2)
ErC50 (algae)	136 mg/l (RA, 72 h, Phaeodactylum tricornutum, OECD 201)

(R)-p-Mentha-1,8-diene (5989-27-5)

LC50 fish 1	702 mg/l (96 h; Pimephales promelas; (OECD 203 method))
EC50 Daphnia 1	0.307 mg/l (48 h; Daphnia magna; (OECD 202 method))
ErC50 (algae)	0.214 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))
LOEC (chronic)	0.188 mg/l
NOEC (chronic)	0.08 mg/l (21 d; Daphnia magna; (OECD 211 method))
NOEC chronic fish	0.059 mg/l (8 d; Pimephales promelas; (OECD 212 method))

12.2. Persistence and degradability

Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide

Persistence and degradability	Readily biodegradable.
Biodegradation	94 % (28 d)

malic acid (6915-15-7)

Persistence and degradability	Readily biodegradable.
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sulphamic acid (5329-14-6)

Persistence and degradability	Not applicable.
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(R)-p-Mentha-1,8-diene (5989-27-5)

Persistence and degradability	Readily biodegradable.
Biodegradation	80 % (28 d; (OECD 301D method))

12.3. Bioaccumulative potential

pentapotassium bis(peroxymonosulphate) bis(sulphate) (70693-62-8)

Log Pow	< 0.3 (20 °C; pH ~ 1; (OECD 117 method))
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Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide

Log Pow	0.7 (OECD 117 method)
Bioaccumulative potential	Bioaccumulation unlikely.

malic acid (6915-15-7)

Log Pow	-6.14 (20 °C; Quantitative structure-activity relationship (QSAR))
Bioaccumulative potential	Bioaccumulation unlikely.

sulphamic acid (5329-14-6)

Log Pow	Not applicable
Bioaccumulative potential	Not applicable.

(R)-p-Mentha-1,8-diene (5989-27-5)

Log Pow	4.38 (37 °C; pH 7.2; (OECD 117 method))
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12.4. Mobility in soil

pentapotassium bis(peroxymonosulphate) bis(sulphate) (70693-62-8)

Log Koc < 1.25 (OECD 121 method)

sulphamidic acid (5329-14-6)

Ecology - soil Low mobility (soil).

12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Component

pentapotassium bis(peroxymonosulphate) bis(sulphate) (70693-62-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide ()	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
malic acid (6915-15-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
sulphamidic acid (5329-14-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
dipotassium peroxodisulphate (7727-21-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
(R)-p-Mentha-1,8-diene (5989-27-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Disposal must be done according to official regulations. European waste catalogue. Do not dispose of with domestic waste. Do not discharge into drains or the environment.
European List of Waste (LoW) code	: 07 06 99 - wastes not otherwise specified 15 01 10* - packaging containing residues of or contaminated by dangerous substances
HP Code	: HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure. HP8 - "Corrosive:" waste which on application can cause skin corrosion. HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 3260	UN 3260	UN 3260	UN 3260	UN 3260
14.2. UN proper shipping name				
CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (pentapotassium bis(peroxymonosulphate) bis(sulphate))	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (pentapotassium bis(peroxymonosulphate) bis(sulphate))	Corrosive solid, acidic, inorganic, n.o.s. (pentapotassium bis(peroxymonosulphate) bis(sulphate))	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (pentapotassium bis(peroxymonosulphate) bis(sulphate))	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (pentapotassium bis(peroxymonosulphate) bis(sulphate))

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according to Regulation (EC) No. 1907/2006 (REACH)

Transport document description

UN 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (pentapotassium bis(peroxymonosulphate) bis(sulphate)), 8, II, (E), ENVIRONMENTALLY HAZARDOUS	UN 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (pentapotassium bis(peroxymonosulphate) bis(sulphate)), 8, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 3260 Corrosive solid, acidic, inorganic, n.o.s. (pentapotassium bis(peroxymonosulphate) bis(sulphate)), 8, II, ENVIRONMENTALLY HAZARDOUS	UN 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (pentapotassium bis(peroxymonosulphate) bis(sulphate)), 8, II, ENVIRONMENTALLY HAZARDOUS	UN 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (pentapotassium bis(peroxymonosulphate) bis(sulphate)), 8, II, ENVIRONMENTALLY HAZARDOUS
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14.3. Transport hazard class(es)

8	8	8	8	8
				

14.4. Packing group

II	II	II	II	II
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14.5. Environmental hazards

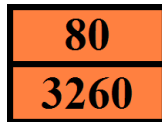
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
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No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: C2
Special provisions (ADR)	: 274
Limited quantities (ADR)	: 1kg
Excepted quantities (ADR)	: E2
Transport category (ADR)	: 2
Hazard identification number (Kemler No.)	: 80
Orange plates	:



Tunnel restriction code (ADR)	: E
EAC code	: 2X

Transport by sea

Special provisions (IMDG)	: 274
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B

Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y844
PCA limited quantity max net quantity (IATA)	: 5kg
PCA packing instructions (IATA)	: 859
PCA max net quantity (IATA)	: 15kg
CAO max net quantity (IATA)	: 50kg
Special provisions (IATA)	: A3, A803

Inland waterway transport

Classification code (ADN)	: C2
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 1 kg
Excepted quantities (ADN)	: E2

Rail transport

Classification code (RID)	: C2
Special provisions (RID)	: 274
Limited quantities (RID)	: 1kg
Excepted quantities (RID)	: E2
Transport category (RID)	: 2
Hazard identification number (RID)	: 80

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	(R)-p-Mentha-1,8-diene
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	(R)-p-Mentha-1,8-diene
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	(R)-p-Mentha-1,8-diene
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	(R)-p-Mentha-1,8-diene

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

Other information, restriction and prohibition regulations : Take note of Directive 94/33/EC on the protection of young people at work. Use biocides safely. Always read the label and product information before use. Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

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

This product contains biocidal products

Type of product (Biocide) : 3 - Veterinary hygiene, 4 - Food and feed area, 5 - Drinking water

Authorisation number :

Directive 2012/18/EU (SEVESO III)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
E2 Hazardous to the Aquatic Environment in Category Chronic 2	200	500

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative

Data sources : MSDS of the supplier.

Department issuing data specification sheet: : KFT Chemieservice GmbH
Im Leuschnerpark. 3 64347 Griesheim
Postfach 1451 64345 Griesheim
Germany

Phone: +49 6155-8981-400 Fax: +49 6155 8981-500
Safety Data Sheet Service: +49 6155 8981-522

Contact person : Dr. Tobias Eger

Other information : Every advertisement for biocides has to be accompanied by following sentence: Use biocides safely.
Always read the label and product information before use.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

BioVX

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Flam. Liq. 3	Flammable liquids, Category 3
Ox. Sol. 3	Oxidising Solids, Category 3
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains dipotassium peroxodisulphate, (R)-p-Mentha-1,8-diene. May produce an allergic reaction.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Acute Tox. 4 (Oral)	H302	Expert judgment
Skin Corr. 1	H314	Expert judgment
STOT SE 3	H335	Expert judgment
Aquatic Chronic 2	H411	Expert judgment

KFT SDS EU 11

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.