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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 08.08.2024 / 0006  
Replacing version dated / version: 11.03.2024 / 0005  
Valid from: 08.08.2024  
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ProtectorWax  
Art.: 319999

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

#### 1.1 Product identifier

**ProtectorWax**  
**Art.: 319999**

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

**Relevant identified uses of the substance or mixture:**

Drying agent

**Uses advised against:**

No information available at present.

#### 1.3 Details of the supplier of the safety data sheet

Koch-Chemie GmbH  
Einsteinstrasse 42  
59423 Unna  
Telefon: +49 (0) 2303 / 9 86 70 - 0  
Fax: +49 (0) 2303 / 9 86 70 - 26  
info@koch-chemie.com  
www.koch-chemie.com

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

#### 1.4 Emergency telephone number

**Emergency information services / official advisory body:**

IRL

National Poisons Information Centre, Beaumont Hospital, Dublin 9, Ireland, Tel.:  
+353 (0)1 809 2166 (Public Poisons Info Line, 8am-10pm, 7 days a week)  
+353 (0)1 809 2566 (Info for Healthcare Professionals ONLY, 24 h, 7 days a week)

**Telephone number of the company in case of emergencies:**

+1 872 5888271 (KCC)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) 1272/2008 (CLP)**

Hazard class	Hazard category	Hazard statement
Acute Tox.	4	H332-Harmful if inhaled.
Skin Corr.	1B	H314-Causes severe skin burns and eye damage.
Eye Dam.	1	H318-Causes serious eye damage.
Aquatic Chronic	3	H412-Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements

**Labeling according to Regulation (EC) 1272/2008 (CLP)**



## Danger

H332-Harmful if inhaled. H314-Causes severe skin burns and eye damage. H412-Harmful to aquatic life with long lasting effects.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

P260-Do not breathe vapours or spray. 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 or shower. P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310-Immediately call a POISON CENTER / doctor.

P405-Store locked up.

P501-Dispose of contents / container to an approved waste disposal facility.

EUH208-Contains Cinnamaldehyde. May produce an allergic reaction.

2-Butoxyethanol

Acetic acid

1-Propanaminium, 2-hydroxy-N-(2-hydroxypropyl)-N,N-dimethyl-, diesters with vegetable-oil fatty acids, C18-unsatd., Me sulfates (salts)

Poly[3-((2-aminoethyl)amino)propyl]methyl(dimethyl)siloxane, methoxy-terminated

### 2.3 Other hazards

The mixture contains a vPvB substance (vPvB = very persistent, very bioaccumulative).

The mixture contains a PBT substance (PBT = persistent, bioaccumulative, toxic).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

n.a.

### 3.2 Mixtures

2-Butoxyethanol	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119475108-36-XXXX
Index	603-014-00-0
EINECS, ELINCS, NLP, REACH-IT List-No.	203-905-0
CAS	111-76-2
content %	20-<30
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 3, H331 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319
Specific Concentration Limits and ATE	ATE (oral): 1200 mg/kg ATE (as inhalation, Aerosol): 0,5 mg/l/4h ATE (as inhalation, Vapours): 3 mg/l

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<b>SILICONE QUATERNIUM-17</b>	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	---
CAS	519142-86-0
content %	5-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Aquatic Chronic 2, H411

<b>Poly[3-((2-aminoethyl)amino)propyl]methyl(dimethyl)siloxane, methoxy-terminated</b>	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	---
CAS	102782-92-3
content %	5-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412

<b>2-(2-butoxyethoxy)ethanol</b>	<b>Substance for which an EU exposure limit value applies.</b>
Registration number (REACH)	01-2119475104-44-XXXX
Index	603-096-00-8
EINECS, ELINCS, NLP, REACH-IT List-No.	203-961-6
CAS	112-34-5
content %	5-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Eye Irrit. 2, H319

<b>1-Propanaminium, 2-hydroxy-N-(2-hydroxypropyl)-N,N-dimethyl-, diesters with vegetable-oil fatty acids, C18-unsatd., Me sulfates (salts)</b>	
Registration number (REACH)	01-2119983493-26-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	939-685-4
CAS	---
content %	3-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412

<b>Acetic acid</b>	<b>Substance for which an EU exposure limit value applies.</b>
Registration number (REACH)	01-2119475328-30-XXXX
Index	607-002-00-6
EINECS, ELINCS, NLP, REACH-IT List-No.	200-580-7
CAS	64-19-7
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Liq. 3, H226 Skin Corr. 1A, H314 Eye Dam. 1, H318
Specific Concentration Limits and ATE	Skin Corr. 1A, H314: >=90 % Skin Corr. 1B, H314: >=25 % Skin Irrit. 2, H315: >=10 % Eye Irrit. 2, H319: >=10 %

<b>Ethanol</b>	
Registration number (REACH)	01-2119457610-43-XXXX

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<b>Index</b>	603-002-00-5
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	200-578-6
<b>CAS</b>	64-17-5
<b>content %</b>	<2,5
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Flam. Liq. 2, H225 Eye Irrit. 2, H319
<b>Specific Concentration Limits and ATE</b>	Eye Irrit. 2, H319: >=50 %

<b>Octamethylcyclotetrasiloxane</b>	<b>PBT-substance</b> <b>vPvB-substance</b> <b>SVHC-substance</b>
<b>Registration number (REACH)</b>	01-2119529238-36-XXXX
<b>Index</b>	014-018-00-1
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	209-136-7
<b>CAS</b>	556-67-2
<b>content %</b>	0,01-<0,1
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Flam. Liq. 3, H226 Repr. 2, H361f Aquatic Chronic 1, H410 (M=10)

<b>Cinnamaldehyde</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	606-155-00-6
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	203-213-9
<b>CAS</b>	104-55-2
<b>content %</b>	0,001-<0,01
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 3, H412
<b>Specific Concentration Limits and ATE</b>	Skin Sens. 1, H317: >=0,01 % ATE (dermal): 1100 mg/kg

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.  
 For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.  
 The substances named in this section are given with their actual, appropriate classification!  
 For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.  
 The addition of the highest concentrations listed here can result in a classification. Only when this classification is listed in Section 2 does it apply. In all other cases the total concentration is below the classification.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

First-aiders should ensure they are protected!  
 Never pour anything into the mouth of an unconscious person!

#### Inhalation

Remove person from danger area.  
 Supply person with fresh air and consult doctor according to symptoms.

#### Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.  
 Cauterizations not treated lead to wounds difficult to heal.

#### Eye contact

Remove contact lenses.  
 Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.  
 Protect uninjured eye.  
 Follow-up examination by an ophthalmologist.

## Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

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

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

Corrosive burns on skin as well as mucous membrane possible.

Risk of serious damage to eyes.

Conjunctivitis

Corneal damage.

Danger of blindness.

Ingestion:

pain in the mouth and throat

stomach pain

Oesophageal perforation

Gastric perforation

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

Symptomatic treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water jet spray/foam/CO2/dry extinguisher

#### Unsuitable extinguishing media

High volume water jet

### 5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Oxides of nitrogen

Oxides of sulphur

Toxic gases

### 5.3 Advice for firefighters

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### 6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Keep unprotected persons away.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

#### 6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

### 6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

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Prevent surface and ground-water infiltration, as well as ground penetration.  
 Prevent from entering drainage system.  
 If accidental entry into drainage system occurs, inform responsible authorities.

**6.3 Methods and material for containment and cleaning up**

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.  
 Fill the absorbed material into lockable containers.  
 Flush residue using copious water.

**6.4 Reference to other sections**

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

**SECTION 7: Handling and storage**

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

**7.1 Precautions for safe handling**

**7.1.1 General recommendations**

Ensure good ventilation.  
 Avoid contact with eyes or skin.  
 Handle and open container with care.  
 There should be an eyewash station and safety shower located near the area of use.  
 Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.  
 Observe directions on label and instructions for use.  
 Use working methods according to operating instructions.

**7.1.2 Notes on general hygiene measures at the workplace**

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep out of access to unauthorised individuals.  
 Not to be stored in gangways or stair wells.  
 Store product closed and only in original packing.  
 Observe special storage conditions.  
 Under all circumstances prevent penetration into the soil.  
 Store in a well ventilated place.  
 Store cool.

**7.3 Specific end use(s)**

No information available at present.  
 Observe the instructions for good working practice and the recommendations for risk assessment.  
 Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries,  
 depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

Chemical Name	2-Butoxyethanol	
WEL-TWA: 25 ppm (123 mg/m <sup>3</sup> ) (WEL-TWA), 20 ppm (98 mg/m <sup>3</sup> ) (EU)	WEL-STEL: 50 ppm (246 mg/m <sup>3</sup> ) (WEL-STEL, EU)	---
Monitoring procedures:	- Compur - KITA-190 U(C) (548 873) - DFG Meth.-Nr. 2 (D) (Lösungsmittelgemische 3), DFG (E) (Solvent mixtures 3) - 2014, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 32-2 (2004) - NIOSH 1403 (ALCOHOLS IV) - 2003 - NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREENING)) - 1996 - OSHA 83 (2-Butoxyethanol (Butyl Cellosolve)) - 1990	
BMGV: 240 mmol butoxyacetic acid/mol creatinine in urine, post shift (BMGV)	Other information: Sk (WEL)	

Chemical Name	2-Butoxyethanol
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OELV-8h: 20 ppm (98 mg/m3) (OELV-8h, EU)	OELV-15min: 50 ppm (246 mg/m3) (OELV-15min, EU)	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Compur - KITA-190 U(C) (548 873)</li> <li>- DFG Meth.-Nr. 2 (D) (Lösungsmittelgemische 3), DFG (E) (Solvent mixtures 3) - 2014, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 32-2 (2004)</li> <li>- NIOSH 1403 (ALCOHOLS IV) - 2003</li> <li>- NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREENING)) - 1996</li> <li>- OSHA 83 (2-Butoxyethanol (Butyl Cellosolve)) - 1990</li> </ul>	
BLV: 200 mg/g creatinine (Butoxyacetic acid (BAA) in urine, h) (ACGIH-BEI)	Other information: Sk, IOELV	

<b>Chemical Name</b>	2-Butoxyethanol	
OELV-8h: 20 ppm (98 mg/m3) (OELV-8h, EU)	OELV-ST: 50 ppm (246 mg/m3) (OELV-ST, EU)	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Compur - KITA-190 U(C) (548 873)</li> <li>- DFG Meth.-Nr. 2 (D) (Lösungsmittelgemische 3), DFG (E) (Solvent mixtures 3) - 2014, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 32-2 (2004)</li> <li>- NIOSH 1403 (ALCOHOLS IV) - 2003</li> <li>- NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREENING)) - 1996</li> <li>- OSHA 83 (2-Butoxyethanol (Butyl Cellosolve)) - 1990</li> </ul>	
BMGV: 240 mmol butoxyacetic acid/mol creatinine in urine, post shift (BMGV)	Other information: Skin	

<b>Chemical Name</b>	2-(2-butoxyethoxy)ethanol	
WEL-TWA: 10 ppm (67,5 mg/m3) (WEL-TWA, EU)	WEL-STEL: 15 ppm (101,2 mg/m3) (WEL-STEL, EU)	---
Monitoring procedures:	---	
BMGV: ---	Other information: ---	

<b>Chemical Name</b>	2-(2-butoxyethoxy)ethanol	
OELV-8h: 10 ppm (67,5 mg/m3) (OELV-8h, EU)	OELV-15min: 15 ppm (101,2 mg/m3) (OELV-15min, EU)	---
Monitoring procedures:	---	
BLV: ---	Other information: IOELV	

<b>Chemical Name</b>	2-(2-butoxyethoxy)ethanol	
OELV-8h: 10 ppm (67,5 mg/m3) (OELV-8h, EU)	OELV-ST: 15 ppm (101,2 mg/m3) (OELV-ST, EU)	---
Monitoring procedures:	---	
BMGV: ---	Other information: ---	

<b>Chemical Name</b>	Acetic acid	
WEL-TWA: 10 ppm (25 mg/m3) (WEL-TWA, EU)	WEL-STEL: 20 ppm (50 mg/m3) (WEL-STEL, EU)	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Acetic Acid 5/a (67 22 101)</li> <li>- Compur - KITA-216 S (549 194)</li> <li>- NIOSH 1603 (Acetic acid in workplace atmospheres) - 1994</li> <li>- OSHA PV2119 (Acetic acid) - 2003 - EU project BC/CEN/ENTR/000/2002-16 card 64-5 (2004)</li> </ul>	
BMGV: ---	Other information: ---	

<b>Chemical Name</b>	Acetic acid	
OELV-8h: 10 ppm (25 mg/m3) (OELV-8h, EU)	OELV-15min: 20 ppm (50 mg/m3) (OELV-15min, EU)	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Acetic Acid 5/a (67 22 101)</li> <li>- Compur - KITA-216 S (549 194)</li> <li>- NIOSH 1603 (Acetic acid in workplace atmospheres) - 1994</li> <li>- OSHA PV2119 (Acetic acid) - 2003 - EU project BC/CEN/ENTR/000/2002-16 card 64-5 (2004)</li> </ul>	
BLV: ---	Other information: IOELV	

<b>Chemical Name</b>	Acetic acid	
OELV-8h: 10 ppm (25 mg/m3) (OELV-8h, EU)	OELV-ST: 20 ppm (50 mg/m3) (OELV-ST, EU)	---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Acetic Acid 5/a (67 22 101)</li> <li>- Compur - KITA-216 S (549 194)</li> <li>- NIOSH 1603 (Acetic acid in workplace atmospheres) - 1994</li> </ul>	

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OSHA PV2119 (Acetic acid) - 2003 - EU project BC/CEN/ENTR/000/2002-16 card 64-5 (2004)	
BMGV: ---	Other information: ---

Chemical Name	Ethanol
WEL-TWA: 1000 ppm (1920 mg/m3)	WEL-STEL: ---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Alcohol 25/a Ethanol (81 01 631)</li> <li>- Compur - KITA-104 SA (549 210)</li> <li>- DFG (D) (Loesungsmittelgemische), Methode Nr. 6 DFG (E) (Solvent mixtures) - 2013, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004)</li> <li>- DFG Meth. Nr. 2 (D) (Loesungsmittelgemische) - 2013 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004)</li> <li>- DFG Meth. Nr. 3 (D) (Loesungsmittelgemische) - 2013 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004)</li> </ul>
BMGV: ---	Other information: ---

Chemical Name	Ethanol
OELV-8h: 1000 ppm	OELV-15min: ---
Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Alcohol 25/a Ethanol (81 01 631)</li> <li>- Compur - KITA-104 SA (549 210)</li> <li>- DFG (D) (Loesungsmittelgemische), Methode Nr. 6 DFG (E) (Solvent mixtures) - 2013, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004)</li> <li>- DFG Meth. Nr. 2 (D) (Loesungsmittelgemische) - 2013 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004)</li> <li>- DFG Meth. Nr. 3 (D) (Loesungsmittelgemische) - 2013 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004)</li> </ul>
BLV: ---	Other information: ---

2-Butoxyethanol						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	8,8	mg/l	
	Environment - marine		PNEC	0,88	mg/l	
	Environment - sediment, freshwater		PNEC	34,6	mg/kg dw	
	Environment - soil		PNEC	2,8	mg/kg dw	
	Environment - sewage treatment plant		PNEC	463	mg/l	
	Environment - sediment, marine		PNEC	3,46	mg/kg dw	
	Environment - sporadic (intermittent) release		PNEC	9,1	mg/l	
	Environment - soil		PNEC	2,33	mg/kg	
	Environment - oral (animal feed)		PNEC	20	mg/kg	
Consumer	Human - inhalation	Long term, local effects	DNEL	123	mg/m3	
Consumer	Human - dermal	Short term, systemic effects	DNEL	44,5	mg/kg bw/d	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	426	mg/m3	
Consumer	Human - oral	Short term, systemic effects	DNEL	13,4	mg/kg bw/d	
Consumer	Human - inhalation	Short term, local effects	DNEL	147	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	38	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	49	mg/m3	



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Consumer	Human - oral	Long term, systemic effects	DNEL	3,2	mg/kg bw/d	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	89	mg/kg bw/d	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	663	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	246	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	75	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	98	mg/m3	

<b>2-(2-butoxyethoxy)ethanol</b>						
<b>Area of application</b>	<b>Exposure route / Environmental compartment</b>	<b>Effect on health</b>	<b>Descriptor</b>	<b>Value</b>	<b>Unit</b>	<b>Note</b>
	Environment - marine		PNEC	0,11	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	11	mg/l	
	Environment - sediment, freshwater		PNEC	4,4	mg/kg	
	Environment - sediment, marine		PNEC	0,44	mg/kg	
	Environment - soil		PNEC	0,32	mg/kg	
	Environment - sewage treatment plant		PNEC	100	mg/l	
	Environment - oral (animal feed)		PNEC	56	mg/kg	
	Environment - freshwater		PNEC	1,1	mg/l	
Consumer	Human - inhalation	Short term, local effects	DNEL	7,5	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	10	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	40,5	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	5	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	6,25	mg/kg bw/d	
Consumer	Human - inhalation	Long term, local effects	DNEL	5	mg/m3	
Workers / employees	Human - oral	Long term, local effects	DNEL	67,5	mg/m3	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	89	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	67,5	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	20	mg/kg	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	101,2	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	67,5	mg/m3	

**1-Propanaminium, 2-hydroxy-N-(2-hydroxypropyl)-N,N-dimethyl-, diesters with vegetable-oil fatty acids, C18-unsatd., Me sulfates (salts)**

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Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,017	mg/l	
	Environment - sediment, freshwater		PNEC	1,7	mg/kg dw	
	Environment - marine		PNEC	0,002	mg/l	
	Environment - sediment, marine		PNEC	0,17	mg/kg dw	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - soil		PNEC	0,331	mg/kg dw	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,17	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	56,25	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	1,25	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	8,72	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	112,5	mg/kg bw/d	

Acetic acid						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	3,058	mg/l	
	Environment - marine		PNEC	0,3058	mg/l	
	Environment - periodic release		PNEC	30,58	mg/l	
	Environment - sediment, freshwater		PNEC	11,36	mg/kg dry weight	
	Environment - sediment, marine		PNEC	1,136	mg/kg dry weight	
	Environment - soil		PNEC	0,478	mg/kg dry weight	
	Environment - sewage treatment plant		PNEC	85	mg/kg dry weight	
Consumer	Human - inhalation	Short term, local effects	DNEL	25	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	25	mg/kg	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	25	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	25	mg/m3	

Ethanol						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,96	mg/l	
	Environment - marine		PNEC	0,79	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	2,75	mg/l	

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	Environment - sewage treatment plant		PNEC	580	mg/l	
	Environment - sediment, freshwater		PNEC	3,6	mg/kg dry weight	
	Environment - soil		PNEC	0,63	mg/kg dry weight	
	Environment - oral (animal feed)		PNEC	0,38	g/kg feed	
	Environment - sediment, marine		PNEC	2,9	mg/kg dry weight	
Consumer	Human - dermal	Short term, local effects	DNEL	950	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	114	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	87	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	206	mg/kg bw/d	
Consumer	Human - inhalation	Short term, local effects	DNEL	950	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	343	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	950	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	1900	mg/m3	

**Octamethylcyclotetrasiloxane**

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	1,5	µg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - soil		PNEC	0,54	mg/kg	
	Environment - sediment, freshwater		PNEC	3	mg/kg	
	Environment - marine		PNEC	0,15	µg/l	
	Environment - sediment, marine		PNEC	0,3	mg/kg	
	Environment - oral (animal feed)		PNEC	41	mg/kg feed	
Consumer	Human - oral	Short term, systemic effects	DNEL	3,7	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	3,7	mg/kg bw/day	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	13	mg/m3	
Consumer	Human - inhalation	Short term, local effects	DNEL	13	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	13	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	13	mg/kg	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	73	mg/m3	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	73	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	73	mg/m3	

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Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	73	mg/m3	
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**GB** - United Kingdom | WEL-TWA = Workplace Exposure Limit - Long-term exposure limit - 8-hour TWA (= time weighted average) reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (8) = Inhalable fraction (2004/37/CE, 2017/164/EU). (9) = Respirable fraction (2004/37/CE, 2017/164/EU). (11) = Inhalable fraction (2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (2004/37/CE). |  
 | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit - 15-minute reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). |  
 | BMGV = Biological monitoring guidance value (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).  
 (EU) = Directive 98/24/EC or 2004/37/EC or SCOEL (Biological Limit Value - BLV, Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL)) |  
 | Other information (EH40/2005 Workplace exposure limits (Fourth Edition 2020)): Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (13) = The substance can cause sensitisation of the skin and of the respiratory tract (2004/37/CE), (14) = The substance can cause sensitisation of the skin (2004/37/CE). |

**IRL** - Ireland/Éire | OELV-8h = Occupational Exposure Limit Value - 8-hour reference period (Chemical Agents and Carcinogens CoP (Code of Practice) 2021, HSA (Health and Safety Authority)): (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (11) = Inhalable fraction (2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (2004/37/CE). |  
 | OELV-15min = Occupational Exposure Limit Value - 15-minute reference period (Chemical Agents and Carcinogens CoP (Code of Practice) 2021, HSA (Health and Safety Authority)): (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). |  
 | BMGV = Biological Monitoring Guidance Value (Biological Monitoring Guidelines 2011, HSA (Health and Safety Authority)): ACGIH-BEI = BMGV have been sourced from Biological Exposure Indices (BEI) as issued by the American Conference of Governmental Industrial Hygienists (ACGIH). SCOEL = BMGV have been sourced from the Scientific Committee on Occupational Exposure Limit Values (SCOEL) which was set up by a Commission Decision (95/320/EC) with the mandate to advise the European Commission on occupational exposure limits for chemicals in the workplace. HSE = BMGV have been sourced from the Health and Safety Executive (HSE), UK.  
 (EU) = Directive 98/24/EC or 2004/37/EC or SCOEL (Biological Limit Value - BLV, Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL)) |  
 | Other information (Chemical Agents and Carcinogens CoP (Code of Practice) 2021, HSA (Health and Safety Authority)): Carc1A, Carc1B = carcinogenic substance, Cat. 1A or 1B. Muta1A, Muta1B = mutagenic substance, Cat. 1A or 1B. Repr1A, Repr1B = Substances known to be toxic for reproduction, Cat. 1A or 1B. Sk = can be absorbed through skin. Asphx = asphyxiant. Sen = Respiratory sensitizer. BOELV = Binding Occupational Exposure Limit Values. IOELV = Indicative Occupational Exposure Limit Values.  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (13) = The substance can cause sensitisation of the skin and of the respiratory tract (2004/37/CE), (14) = The substance can cause sensitisation of the skin (2004/37/CE). |

**M** - Malta | OELV-8h = Occupational Exposure Limit Value - 8 h (8-hour reference period as a time-weighted average) [S.L.424.24, last amended by L.N. 356 of 2021]: [9] = Inhalable fraction, [10] = Respirable fraction.  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (11) = Inhalable fraction (2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (2004/37/CE). |  
 | OELV-ST = Occupational Exposure Limit Value - Short-term (15-minute reference period) [S.L.424.24, last amended by L.N. 356 of 2021]: [8] = Short-term exposure limit value in relation to a reference period of 1 minute, [9] = Inhalable fraction, [10] = Respirable

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fraction.

(EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
(8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). |

| BMGV = Biological monitoring guidance value (EH40/2005 Workplace exposure limits (Fourth Edition 2020), United Kingdom).

(EU) = Directive 98/24/EC or 2004/37/EC or SCOEL (Biological Limit Value - BLV, Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL)) |

| Other information [S.L.424.24, last amended by L.N. 356 of 2021]: Skin = Possibility of a significant uptake through the skin. [11] = When selecting an appropriate exposure monitoring method, account should be taken of potential limitations and interferences that may arise in the presence of other sulphur compounds. [12] = The mist is defined as the thoracic fraction. [13] = Established in accordance with the Annex to Directive 91/322/EEC. [14] = During exposure monitoring for mercury and its divalent inorganic compounds, account should be taken of relevant biological monitoring techniques that complement the OELV.

(EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:

(EU13) = The substance can cause sensitisation of the skin and of the respiratory tract (2004/37/CE), (EU14) = The substance can cause sensitisation of the skin (2004/37/CE). |

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN ISO 374).

Recommended

Protective gloves made of butyl (EN ISO 374).

Protective nitrile gloves (EN ISO 374).

Protective PVC gloves (EN ISO 374).

Minimum layer thickness in mm:

> 0,5

Permeation time (penetration time) in minutes:

> 480

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

If OES or MEL is exceeded.

Gas mask filter A (EN 14387), code colour brown

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

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Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents. Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

### 8.2.3 Environmental exposure controls

No information available at present.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Orange
Odour:	Characteristic
Melting point/freezing point:	There is no information available on this parameter.
Boiling point or initial boiling point and boiling range:	There is no information available on this parameter.
Flammability:	There is no information available on this parameter.
Lower explosion limit:	There is no information available on this parameter.
Upper explosion limit:	There is no information available on this parameter.
Flash point:	There is no information available on this parameter.
Auto-ignition temperature:	There is no information available on this parameter.
Decomposition temperature:	There is no information available on this parameter.
pH:	4,5
Kinematic viscosity:	There is no information available on this parameter.
Solubility:	Soluble
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	There is no information available on this parameter.
Density and/or relative density:	0,97 g/cm <sup>3</sup>
Relative vapour density:	There is no information available on this parameter.
Particle characteristics:	Does not apply to liquids.

### 9.2 Other information

No information available at present.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product has not been tested.

### 10.2 Chemical stability

Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

### 10.4 Conditions to avoid

See also section 7.

None known

### 10.5 Incompatible materials

See also section 7.

Avoid contact with strong alkalis.

Avoid contact with strong oxidizing agents.

Avoid contact with strong acids.

### 10.6 Hazardous decomposition products

See also section 5.2

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No decomposition when used as directed.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Possibly more information on health effects, see Section 2.1 (classification).

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Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:	ATE	10,3	mg/l/4h			calculated value, Vapours
Acute toxicity, by inhalation:	ATE	1,7	mg/l/4h			calculated value, Aerosol
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

#### 2-Butoxyethanol

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	1200	mg/kg			
Acute toxicity, by dermal route:	LD50	2275	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	ATE	3	mg/l			Vapours
Acute toxicity, by inhalation:	ATE	0,5	mg/l/4h			Aerosol
Skin corrosion/irritation:				Rabbit	Regulation (EC) 440/2008 B.4 (DERMAL IRRITATION/CORROSION)	Skin Irrit. 2, Product removes fat.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative

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Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Carcinogenicity:				Rat	OECD 451 (Carcinogenicity Studies)	Negative
Carcinogenicity:	NOAEC	125	ppm	Mouse	OECD 451 (Carcinogenicity Studies)	Negative
Reproductive toxicity:	NOAEL	720	mg/kg bw/d			
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	<69	mg/kg bw/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	>150	mg/kg bw/d	Rabbit	OECD 411 (Subchronic Dermal Toxicity - 90-day Study)	
Aspiration hazard:						No
Symptoms:						acidosis, ataxia, breathing difficulties, respiratory distress, drowsiness, unconsciousness, annoyance, coughing, headaches, gastrointestinal disturbances, insomnia, mucous membrane irritation, dizziness, nausea

<b>Poly[3-((2-aminoethyl)amino)propyl]methyl(dimethyl)siloxane, methoxy-terminated</b>						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		Analogous conclusion
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Corr. 1B
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Dam. 1

<b>2-(2-butoxyethoxy)ethanol</b>						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by oral route:	LD50	2410	mg/kg	Mouse	OECD 401 (Acute Oral Toxicity)	fasted animals
Acute toxicity, by dermal route:	LD50	2764	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>29	ppm	Rat	OECD 403 (Acute Inhalation Toxicity)	Dusts or mist



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Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative Chinese hamster
Germ cell mutagenicity:				Mouse	OECD 475 (Mammalian Bone Marrow Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative Chinese hamster
Reproductive toxicity:		1000	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	250	mg/kg	Rat		
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	< 200	mg/kg bw/d	Rat	OECD 411 (Subchronic Dermal Toxicity - 90-day Study)	Male
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	14	ppm	Rat		Vapours
Aspiration hazard:						No
Symptoms:						breathing difficulties, respiratory distress, diarrhoea, coughing, mucous membrane irritation, dizziness, watering eyes, nausea

**1-Propanaminium, 2-hydroxy-N-(2-hydroxypropyl)-N,N-dimethyl-, diesters with vegetable-oil fatty acids, C18-unsatd., Me sulfates (salts)**

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Mouse	OECD 423 (Acute Oral Toxicity - Acute Toxic Class Method)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Irrit. 2

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Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Dam. 1
Respiratory or skin sensitisation:				Guinea pig		Not sensitising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative, Analogous conclusion
Reproductive toxicity:	NOAEL	1000	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	500	mg/kg	Rat	OECD 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)	
Symptoms:						gastrointestinal disturbances

<b>Acetic acid</b>						
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:	LD50	3310	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	11,4	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Corrosive
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Corrosive, Eye Dam. 1
Respiratory or skin sensitisation:						Not sensitising
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:						Negative
Symptoms:						acidosis, respiratory distress, burning of the membranes of the nose and throat, diarrhoea, disturbed heart rhythm, cornea opacity, cramps, circulatory collapse, stomach cramps, shock, nausea and vomiting.

**Ethanol**

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Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	10470	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	51-124,7	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Vapours
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	No (skin contact)
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 475 (Mammalian Bone Marrow Chromosome Aberration Test)	Negative
Carcinogenicity:	NOAEL	>3000	mg/kg	Rat	OECD 451 (Carcinogenicity Studies)	24 mon
Reproductive toxicity:	NOAEL	5200	mg/kg bw/d	Rat	OECD 416 (Two-generation Reproduction Toxicity Study)	
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAL	>20	mg/l	Rat	OECD 403 (Acute Inhalation Toxicity)	Male
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	1730	mg/kg/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Female
Symptoms:						respiratory distress, drowsiness, unconsciousness, drop in blood pressure, vomiting, coughing, headaches, intoxication, drowsiness, mucous membrane irritation, dizziness, nausea

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<b>Octamethylcyclotetrasiloxane</b>						
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:	LD50	4800	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2375	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	36	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rat	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Carcinogenicity:	NOAEL	150	mg/kg	Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	inhalation
Reproductive toxicity:	NOAEL			Rat	OECD 416 (Two-generation Reproduction Toxicity Study)	Repr. 2
Reproductive toxicity (Developmental toxicity):	NOAEL	300	ppm	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	960	mg/kg bw/d	Rabbit	OECD 410 (Repeated Dose Dermal Toxicity - 90-Day)	(21 d)
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEC	150	mg/kg	Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	

<b>Cinnamaldehyde</b>						
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:	LD50	2220	mg/kg	Rat		
Acute toxicity, by dermal route:	ATE	1100	mg/kg			
Skin corrosion/irritation:				Human being		Irritant
Skin corrosion/irritation:				Guinea pig		Irritant
Respiratory or skin sensitisation:				Guinea pig		Sensitising (skin contact)
Respiratory or skin sensitisation:				Human being	(Patch-Test)	Sensitising (skin contact)

## 11.2. Information on other hazards

<b>ProtectorWax Art.: 319999</b>						
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Endocrine disrupting properties:						Does not apply to mixtures.



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12.2. Persistence and degradability:							The surfactant(s) contained in this mixture complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Endocrine disrupting properties:							Does not apply to mixtures.
12.7. Other adverse effects:							No information available on other adverse effects on the environment.
Other information:							DOC-elimination degree(complexing organic substance) $\geq$ 80%/28d: n.a.
Other information:	AOX			%			According to the recipe, contains no AOX.

<b>2-Butoxyethanol</b>							
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Time</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
12.1. Toxicity to fish:	LC50	96h	1474	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	21d	>100	mg/l	Brachydanio rerio	OECD 204 (Fish, Prolonged Toxicity Test - 14-Day Study)	

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12.1. Toxicity to daphnia:	EC50	48h	1550	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	100	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	1840	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	286	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	95	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable
12.2. Persistence and degradability:		28d	>99	%		OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		3,2				Slight
12.3. Bioaccumulative potential:	Log Pow		0,81			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	Not to be expected
12.4. Mobility in soil:	H (Henry)		0,0000016	atm*m3/mol			
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10	16h	>700	mg/l	Pseudomonas putida	DIN 38412 T.8	

**SILICONE QUATERNIUM-17**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>10-100	mg/l	Brachydanio rerio		
12.1. Toxicity to daphnia:	EC50	48h	>10-100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.2. Persistence and degradability:							Not readily biodegradable

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Toxicity to bacteria:	EC50		>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
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Poly[3-((2-aminoethyl)amino)propyl]methyl(dimethyl)siloxane, methoxy-terminated							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.2. Persistence and degradability:							Not readily biodegradable
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

2-(2-butoxyethoxy)ethanol							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1300	mg/l	Lepomis macrochirus	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	>=100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	NOEC/NOEL	96h	>100	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	76	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	
12.2. Persistence and degradability:		28d	100	%	activated sludge	OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		0,9-1			OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)	Slight



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12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10	30min	>1995	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

**1-Propanaminium, 2-hydroxy-N-(2-hydroxypropyl)-N,N-dimethyl-, diesters with vegetable-oil fatty acids, C18-unsatd., Me sulfates (salts)**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOEC/NOEL	35d	0,686	mg/l	Pimephales promelas	U.S. EPA ECOTOX Database	Analogous conclusion
12.1. Toxicity to fish:	LC50	96h	>10	mg/l	Cyprinus caprio	OECD 203 (Fish, Acute Toxicity Test)	Analogous conclusion
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	1	mg/l	Daphnia magna	U.S. EPA ECOTOX Database	Analogous conclusion
12.1. Toxicity to daphnia:	EC50	48h	>8,6	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Analogous conclusion
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,39	mg/l	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion
12.1. Toxicity to algae:	EC50	72h	1,2	mg/l	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion
12.2. Persistence and degradability:		28d	>60	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
Toxicity to bacteria:	EC50	6d	100	mg/l	activated sludge		Analogous conclusion

**Acetic acid**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	75	mg/l	Lepomis macrochirus		
12.1. Toxicity to fish:	LC50	96h	88	mg/l	Pimephales promelas		

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12.1. Toxicity to daphnia:	EC50	48h	>300,82	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	EC50	24h	47	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	>300,82	mg/l	Skeletonema costatum		
12.2. Persistence and degradability:		30d	>99	%			
12.2. Persistence and degradability:		20d	98	%			Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		-0,17				
12.3. Bioaccumulative potential:	BCF		<1				Not to be expected
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	15min	11	mg/l	Photobacterium phosphoreum		
Toxicity to bacteria:	EC5	16h	2850	mg/l	Pseudomonas putida		
Other information:	BOD5		0,88	g/g			

<b>Ethanol</b>							
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Time</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
12.1. Toxicity to fish:	LC50	96h	13000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	120h	250	mg/l	Brachydanio rerio	OECD 212 (Fish, Short-term Toxicity Test on Embryo and Sac-fry Stages)	
12.1. Toxicity to daphnia:	EC50	48h	5414	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	10d	9,6	mg/l	Ceriodaphnia spec.		References
12.1. Toxicity to algae:	EC50	72h	275	mg/l	Chlorella vulgaris	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	97	%	activated sludge	OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		(-0,35) - (-0,32)				Bioaccumulation is unlikely (LogPow < 1).
12.3. Bioaccumulative potential:	BCF		0,66 - 3,2				
12.4. Mobility in soil:	H (Henry)		0,000138				
12.4. Mobility in soil:	Koc		1,0				Highestimated

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12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	IC50	3h	>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	Analogous conclusion
Other organisms:	NOEC/NOEL		280	mg/l	Lemna gibba	OECD 201 (Alga, Growth Inhibition Test)	
Other information:	COD		1,9	g/g			
Other information:	BOD5		1	g/g			

Octamethylcyclotetrasiloxane							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	> 22	µg/l	Oncorhynchus mykiss		EPA OTS 797.1400
12.1. Toxicity to fish:	NOEC/NOEL	>60d	>=0,0044	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	EC50	48h	> 15	µg/l	Daphnia magna		EPA OTS 797.1300
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>0,015	mg/l	Daphnia magna		
12.1. Toxicity to algae:	ErC10	96h	0,022	mg/l			
12.1. Toxicity to algae:	EC50	96h	>2000	mg/l			
12.2. Persistence and degradability:		28d	3,7	%	activated sludge	OECD 310 (Ready Biodegradability - CO2 in sealed vessels (Headspace Test))	Not readily biodegradable
12.3. Bioaccumulative potential:	BCF	28d	12400		Pimephales promelas		EPA OTS 797.1520
12.3. Bioaccumulative potential:	Log Pow		6,98				21,7 °C
12.5. Results of PBT and vPvB assessment							PBT-substance, vPvB-substance
Toxicity to bacteria:	EC50	3h	>10000	mg/l	activated sludge	ISO 8192	

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

16 05 08 discarded organic chemicals consisting of or containing hazardous substances

20 01 99 other fractions not otherwise specified

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

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E.g. dispose at suitable refuse site.  
 E.g. suitable incineration plant.


**For contaminated packing material**

Pay attention to local and national official regulations.  
 Empty container completely.  
 Uncontaminated packaging can be recycled.  
 Dispose of packaging that cannot be cleaned in the same manner as the substance.


**SECTION 14: Transport information**

**General statements**


**Transport by road/by rail (ADR/RID)**

14.1. UN number or ID number:	3265	
14.2. UN proper shipping name:		
	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (AMINO FUNCTIONAL SILOXANE, ACETIC ACID)	
14.3. Transport hazard class(es):	8	
14.4. Packing group:	II	
14.5. Environmental hazards:	Not applicable	
Tunnel restriction code:	E	
Classification code:	C3	
LQ:	1 L	
Transport category:	2	

**Transport by sea (IMDG-code)**

14.1. UN number or ID number:	3265	
14.2. UN proper shipping name:		
	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (AMINO FUNCTIONAL SILOXANE, ACETIC ACID)	
14.3. Transport hazard class(es):	8	
14.4. Packing group:	II	
14.5. Environmental hazards:	Not applicable	
Marine Pollutant:	Not applicable	
EmS:	F-A, S-B	

**Transport by air (IATA)**

14.1. UN number or ID number:	3265	
14.2. UN proper shipping name:		
	UN 3265 Corrosive liquid, acidic, organic, n.o.s. (AMINO FUNCTIONAL SILOXANE, ACETIC ACID)	
14.3. Transport hazard class(es):	8	
14.4. Packing group:	II	
14.5. Environmental hazards:	Not applicable	

**14.6. Special precautions for user**

Persons employed in transporting dangerous goods must be trained.  
 All persons involved in transporting must observe safety regulations.  
 Precautions must be taken to prevent damage.

**14.7. Maritime transport in bulk according to IMO instruments**

Freighted as packaged goods rather than in bulk, therefore not applicable.  
 Minimum amount regulations have not been taken into account.  
 Danger code and packing code on request.  
 Comply with special provisions.

**SECTION 15: Regulatory information**

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

Observe restrictions:  
 Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!  
 Regulation (EC) No 1907/2006, Annex XVII  
 2-(2-butoxyethoxy)ethanol  
 Octamethylcyclotetrasiloxane

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Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!  
 Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC): ~ 32,3 %

Observe incident regulations.

National requirements/regulations on safety and health protection must be applied when using work equipment.

### 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

## SECTION 16: Other information

Revised sections: 2, 3, 11, 16  
 Employee training in handling dangerous goods is required.  
 These details refer to the product as it is delivered.  
 Employee instruction/training in handling hazardous materials is required.

### Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Acute Tox. 4, H332	Classification according to calculation procedure.
Skin Corr. 1B, H314	Classification according to calculation procedure.
Eye Dam. 1, H318	Classification according to calculation procedure.
Aquatic Chronic 3, H412	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents.

- H314 Causes severe skin burns and eye damage.
- H361f Suspected of damaging fertility.
- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H317 May cause an allergic skin reaction.
- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- 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.

- Acute Tox. — Acute toxicity - inhalation
- Skin Corr. — Skin corrosion
- Eye Dam. — Serious eye damage
- Aquatic Chronic — Hazardous to the aquatic environment - chronic
- Acute Tox. — Acute toxicity - oral
- Skin Irrit. — Skin irritation
- Eye Irrit. — Eye irritation
- Flam. Liq. — Flammable liquid
- Repr. — Reproductive toxicity
- Acute Tox. — Acute toxicity - dermal
- Skin Sens. — Skin sensitization

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ProtectorWax

Art.: 319999

### Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.

Guidelines for the preparation of safety data sheets as amended (ECHA).

Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).

Safety data sheets for the constituent substances.

ECHA Homepage - Information about chemicals.

GESTIS Substance Database (Germany).

German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).

EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.

National Lists of Occupational Exposure Limits for each country as amended.

Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

### Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

BAM Bundesanstalt für Materialforschung und -prüfung (= Federal Institute for Materials Research and Testing, Germany)

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

BSEF The International Bromine Council

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

DOC Dissolved organic carbon

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)

EC European Community

ECHA European Chemicals Agency

ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

ErCx, EμCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)

etc. et cetera

EU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number

gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

Koc Adsorption coefficient of organic carbon in the soil

Kow octanol-water partition coefficient

IARC International Agency for Research on Cancer

IATA International Air Transport Association

IBC (Code) International Bulk Chemical (Code)

IMDG-code International Maritime Code for Dangerous Goods

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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
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incl. including, inclusive  
IUCLID International Uniform Chemical Information Database  
IUPAC International Union for Pure Applied Chemistry  
LC50 Lethal Concentration to 50 % of a test population  
LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)  
Log Koc Logarithm of adsorption coefficient of organic carbon in the soil  
Log Kow, Log Pow Logarithm of octanol-water partition coefficient  
LQ Limited Quantities  
MARPOL International Convention for the Prevention of Marine Pollution from Ships  
mg/kg bw mg/kg body weight  
mg/kg bw/d, mg/kg bw/day mg/kg body weight/day  
mg/kg dw mg/kg dry weight  
mg/kg wwt mg/kg wet weight  
n.a. not applicable  
n.av. not available  
n.c. not checked  
n.d.a. no data available  
NIOSH National Institute for Occupational Safety and Health (USA)  
NLP No-longer-Polymer  
NOEC, NOEL No Observed Effect Concentration/Level  
OECD Organisation for Economic Co-operation and Development  
org. organic  
OSHA Occupational Safety and Health Administration (USA)  
PBT persistent, bioaccumulative and toxic  
PE Polyethylene  
PNEC Predicted No Effect Concentration  
ppm parts per million  
PVC Polyvinylchloride  
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)  
REACH-IT List-No. 6/7/8/9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.  
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)  
SVHC Substances of Very High Concern  
Tel. Telephone  
TOC Total organic carbon  
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods  
VOC Volatile organic compounds  
vPvB very persistent and very bioaccumulative

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by:

**Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90**

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