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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 04.07.2024 / 0003  
Replacing version dated / version: 15.11.2023 / 0002  
Valid from: 04.07.2024  
PDF print date: 05.07.2024  
NanoMagicShampoo  
Art.: 77702999

## 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

**NanoMagicShampoo**  
**Art.: 77702999**

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

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

Vehicle cleansing

**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
Eye Irrit.	2	H319-Causes serious eye irritation.
Skin Irrit.	2	H315-Causes skin irritation.
Aquatic Chronic	3	H412-Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements

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



**Warning**

H319-Causes serious eye irritation. H315-Causes skin irritation. 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.

P273-Avoid release to the environment. P280-Wear protective gloves / eye protection / face protection.

P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. P314-Get medical advice / attention if you feel unwell.

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

EUH205-Contains epoxy constituents. May produce an allergic reaction.

**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**

<b>1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even-numbered)-acyl derivs., hydroxides, inner salts</b>	
<b>Registration number (REACH)</b>	01-2119488533-30-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	931-296-8
<b>CAS</b>	97862-59-4
<b>content %</b>	10-<25
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Eye Dam. 1, H318 Aquatic Chronic 3, H412
<b>Specific Concentration Limits and ATE</b>	Eye Dam. 1, H318: >=10 % Eye Irrit. 2, H319: >=4 %
<b>2-Butoxyethanol</b>	<b>Substance for which an EU exposure limit value applies.</b>
<b>Registration number (REACH)</b>	01-2119475108-36-XXXX
<b>Index</b>	603-014-00-0
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	203-905-0
<b>CAS</b>	111-76-2
<b>content %</b>	5-<10
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Acute Tox. 3, H331 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319

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<b>Specific Concentration Limits and ATE</b>	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>Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)</b>	
<b>Registration number (REACH)</b>	01-2119490100-53-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	931-329-6
<b>CAS</b>	68155-07-7
<b>content %</b>	1-<5
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411

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

<b>Siloxanes and silicones, di-Me, 3-[3-[(3-coco amidopropyl)dimethylammonio]-2-hydroxypropoxy]propyl group-terminated, acetates (salts)</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	---
<b>CAS</b>	134737-05-6
<b>content %</b>	1-<2,5
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Aquatic Chronic 2, H411

<b>Poly[3-((2-aminoethyl)amino)propyl]methyl(dimethyl)siloxane, methoxy-terminated</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	---
<b>CAS</b>	102782-92-3
<b>content %</b>	0,1-<1
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

<b>Decamethylcyclopentasiloxane</b>	<b>PBT-substance</b> <b>vPvB-substance</b> <b>SVHC-substance</b>
<b>Registration number (REACH)</b>	01-2119511367-43-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	208-764-9
<b>CAS</b>	541-02-6
<b>content %</b>	<1
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	---

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Dodecamethylcyclohexasiloxane	PBT-substance vPvB-substance SVHC-substance
Registration number (REACH)	01-2119517435-42-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	208-762-8
CAS	540-97-6
content %	<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	---

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

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.

#### Eye contact

Remove contact lenses.  
 Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

#### 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.

eyes, reddened  
 watering eyes  
 reddening of the skin  
 Dermatitis (skin inflammation)  
 Allergic reaction

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

Symptomatic treatment.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

The product does not burn.  
Adapt to the nature and extent of fire.  
Water jet spray / alcohol resistant foam / CO<sub>2</sub> / 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.  
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.  
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, sawdust) and dispose of according to Section 13.  
Fill the absorbed material into lockable containers.

### 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.

GB IRL M

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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.  
 Store product closed and only in original packing.  
 Not to be stored in gangways or stair wells.  
 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

GB 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:	<ul style="list-style-type: none"> <li>- Compur - KITA-190 U(C) (548 873)</li> <li>- DFG Meth.-Nr. 2 (D) (Loesungsmittelgemische 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: Sk (WEL)		

IRL Chemical Name		2-Butoxyethanol	
OELV-8h: 20 ppm (98 mg/m <sup>3</sup> ) (OELV-8h, EU)	OELV-15min: 50 ppm (246 mg/m <sup>3</sup> ) (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) (Loesungsmittelgemische 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		

M Chemical Name		2-Butoxyethanol	
OELV-8h: 20 ppm (98 mg/m <sup>3</sup> ) (OELV-8h, EU)	OELV-ST: 50 ppm (246 mg/m <sup>3</sup> ) (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) (Loesungsmittelgemische 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		

**1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even-numbered)-acyl derivs., hydroxides, inner salts**

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Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,0135	mg/l	
	Environment - marine		PNEC	0,00135	mg/l	
	Environment - sewage treatment plant		PNEC	3000	mg/l	
	Environment - soil		PNEC	0,8	mg/kg	
	Environment - sediment, freshwater		PNEC	1	mg/kg dw	
	Environment - sediment, marine		PNEC	0,1	mg/kg dw	
Consumer	Human - oral	Long term, systemic effects	DNEL	7,5	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	7,5	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	44	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	12,5	mg/kg	

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	
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	

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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	

Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,007	mg/l	
	Environment - marine		PNEC	0,0007	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,024	mg/l	
	Environment - sediment, freshwater		PNEC	0,195	mg/kg dw	
	Environment - soil		PNEC	0,0348	mg/kg dw	
	Environment - sewage treatment plant		PNEC	830	mg/l	
	Environment - sediment, marine		PNEC	0,0195	mg/kg dw	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	21,7	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	2,5	mg/kg bw/d	
Consumer	Human - dermal	Long term, local effects	DNEL	0,056	mg/cm2	
Consumer	Human - oral	Long term, systemic effects	DNEL	6,25	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	4,16	mg/kg bw/d	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,09	mg/cm2	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	73,4	mg/m3	

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



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Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	8,72	mg/m <sup>3</sup>	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	112,5	mg/kg bw/d	

<b>Decamethylcyclopentasiloxane</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,0012	mg/l	
	Environment - marine		PNEC	0,00012	mg/l	
	Environment - sediment, freshwater		PNEC	11	mg/kg	
	Environment - sediment, marine		PNEC	1,1	mg/kg	
	Environment - soil		PNEC	2,54	mg/kg	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - oral (animal feed)		PNEC	16	mg/kg	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	17,3	mg/m <sup>3</sup>	
Consumer	Human - inhalation	Short term, local effects	DNEL	4,3	mg/m <sup>3</sup>	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	17,3	mg/m <sup>3</sup>	
Consumer	Human - inhalation	Long term, local effects	DNEL	4,3	mg/m <sup>3</sup>	
Consumer	Human - oral	Short term, systemic effects	DNEL	5	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	5	mg/kg bw/d	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	97,3	mg/m <sup>3</sup>	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	24,2	mg/m <sup>3</sup>	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	97,3	mg/m <sup>3</sup>	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	24,2	mg/m <sup>3</sup>	

<b>Dodecamethylcyclohexasiloxane</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - sediment, freshwater		PNEC	2,826	mg/kg dw	
	Environment - sediment, marine		PNEC	0,282	mg/kg dw	
	Environment - soil		PNEC	3,336	mg/kg dw	
	Environment - sewage treatment plant		PNEC	1	mg/l	
	Environment - oral (animal feed)		PNEC	66,7	mg/kg	
Consumer	Human - oral	Short term, systemic effects	DNEL	1,7	mg/kg bw/d	
Consumer	Human - inhalation	Short term, local effects	DNEL	1,5	mg/m <sup>3</sup>	

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Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,7	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	1,7	mg/kg bw/d	
Consumer	Human - inhalation	Long term, local effects	DNEL	0,3	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	6,1	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	11	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	1,22	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	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	73	mg/m3	

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). |

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| 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 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).

Minimum layer thickness in mm:

> 0,5

Permeation time (penetration time) in minutes:

> 120

Protective hand cream recommended.

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.

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:

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.

## 9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Yellow, Green
Odour:	Fruity
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:	5
Kinematic viscosity:	There is no information available on this parameter.
Solubility:	Mixable
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:	1 g/ml
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

None known

### 10.5 Incompatible materials

None known

### 10.6 Hazardous decomposition products

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	>20	mg/l/4h			calculated value, Vapours
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value, Aerosol
Skin corrosion/irritation:						n.d.a.

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Serious eye damage/irritation:					OECD 437 (Bovine Corneal Opacity + Permeability Test for Identif. Ocular Corros. + Severe Irritants)	Non-caustic
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.

<b>1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even-numbered)-acyl derivs., hydroxides, inner salts</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	2335	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Mild irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Risk of serious damage to eyes.
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:				Salmonella typhimurium	(Ames-Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:	NOEL	100	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOEL	247	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	

<b>2-Butoxyethanol</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:	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

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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
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

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<b>Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)</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	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Intensively irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizing
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Carcinogenicity:				Rat		Negative
Reproductive toxicity:	NOAEL	1000	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	>750	mg/kg/d		OECD 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)	
Symptoms:						eyes, reddened, watering eyes, reddening of the skin, blisters by skin-contact, stomach pain

<b>1-Propanaminium, 2-hydroxy-N-(2-hydroxypropyl)-N,N-dimethyl-, diesters with vegetable-oil fatty acids, C18-unsatd., Me sulfates (salts)</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	>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
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Dam. 1
Respiratory or skin sensitisation:				Guinea pig		Not sensitizing
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative, Analogous conclusion



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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

**Siloxanes and silicones, di-Me, 3-[3-[(3-coco amidopropyl)dimethylammonio]-2-hydroxypropoxy]propyl group-terminated, acetates (salts)**

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	55-60	mg/l/4h			Vapours
Skin corrosion/irritation:				Rabbit		Not irritant
Serious eye damage/irritation:				Rabbit		Not irritant
Respiratory or skin sensitisation:						Not sensitising, Analogous conclusion
Germ cell mutagenicity:					(Ames-Test)	Negative

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

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		Analogous conclusion

**Decamethylcyclopentasiloxane**

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 dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by dermal route:	LD50	> 2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	8,67	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol
Skin corrosion/irritation:				Rabbit	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:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	No (skin contact)
Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative

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Germ cell mutagenicity:				Rat	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative vapour
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Rat	OECD 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells In Vivo)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:				Rat		Negative
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	>=1000	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	>=1600	mg/kg bw/d	Rat	OECD 410 (Repeated Dose Dermal Toxicity - 90-Day)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	>=160	mg/l/6h/d	Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Vapours

**Dodecamethylcyclohexasiloxane**

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 423 (Acute Oral Toxicity - Acute Toxic Class Method)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	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)	No (skin contact)
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	0,15	mg/kg bw/d	Rat	OECD 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	1000	mg/kg	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Development. Tox. Screening Test)	

**Octamethylcyclotetrasiloxane**

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Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
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)	

## 11.2. Information on other hazards

NanoMagicShampoo Art.: 77702999						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Endocrine disrupting properties:						Does not apply to mixtures.
Other information:						No other relevant information available on adverse effects on health.

## SECTION 12: Ecological information

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

NanoMagicShampoo Art.: 77702999							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes

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12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
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) >= 80%/28d: n.a.
Other information:	AOX			%			According to the recipe, contains no AOX.

**1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even-numbered)-acyl derivs., hydroxides, inner salts**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1,11	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	

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12.1. Toxicity to fish:	NOEC/NOEL	>60d	0,135	mg/l	Oncorhynchus mykiss	OECD 210 (Fish, Early-Life Stage Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	1,9	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,32	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to daphnia:	LOEC/LOEL	21d	0,56	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	~1,5	mg/l	Desmodesmus subspicatus	DIN 38412 T.9	
12.2. Persistence and degradability:		28d	91,6	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
12.3. Bioaccumulative potential:	Log Kow		4,21				calculated
12.3. Bioaccumulative potential:	BCF		<71				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

<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)	
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	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	286	mg/l	Pseudokirchnerie lla 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

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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	

**Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	2,4	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	28d	0,32	mg/l	Oncorhynchus mykiss	OECD 204 (Fish, Prolonged Toxicity Test - 14-Day Study)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,07	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to daphnia:	EC50	48h	3,2	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	3,9	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,3	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	92,5	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		3,75				
12.3. Bioaccumulative potential:	BCF		65,36				Low
Toxicity to bacteria:	EC50	16h	6000	mg/l		DIN 38412 T.8	

**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
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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

**Siloxanes and silicones, di-Me, 3-[3-[(3-coco amidopropyl)dimethylammonio]-2-hydroxypropoxy]propyl group-terminated, acetates (salts)**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>10000	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	Analogous conclusion
12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Analogous conclusion
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	12	mg/l	Daphnia magna		
12.1. Toxicity to algae:	ErC50	72h	>969	mg/l	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EC10	18h	4168	mg/l		OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:	DOC	28d	73	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable

**Decamethylcyclopentasiloxane**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>16	µg/l	Oncorhynchus mykiss	OECD 204 (Fish, Prolonged Toxicity Test - 14-Day Study)	Water toxicology is above the water-solubility value.

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12.1. Toxicity to fish:	NOEC/NOEL	>60d	>14	µg/l	Oncorhynchus mykiss	OECD 210 (Fish, Early-Life Stage Toxicity Test)	Water toxicology is above the water-solubility value.90 d
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>15	µg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	Water toxicology is above the water-solubility value.
12.1. Toxicity to daphnia:	EC50	48h	>2,9	µg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Water toxicology is above the water-solubility value.
12.1. Toxicity to algae:	EC50	96h	>12	µg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	Water toxicology is above the water-solubility value.
12.1. Toxicity to algae:	NOEC/NOEL	96h	>= 12	µg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	Water toxicology is above the water-solubility value.
12.2. Persistence and degradability:		28d	0,14	%		OECD 310 (Ready Biodegradability - CO2 in sealed vessels (Headspace Test))	Not readily biodegradable
12.3. Bioaccumulative potential:	BCF		7060			OECD 305 (Bioconcentration - Flow-Through Fish Test)	High
12.3. Bioaccumulative potential:	Log Pow		8,023			OECD 123 (Partition Coefficient (1-Octanol / Water) - Slow-Stirring Method)	A notable biological accumulation potential has to be expected (LogPow > 3).25,3 °C
12.5. Results of PBT and vPvB assessment							vPvB-substance, PBT-substance
Toxicity to bacteria:	EC50	3h	>2000	mg/l	activated sludge	Regulation (EC) 440/2008 C.11 (BIODEGRADATION - ACTIVATED SLUDGE RESPIRATION INHIBITION)	
Toxicity to annelids:	NOEC/NOEL		>=76	mg/kg	Eisenia foetida		
Water solubility:			<0,05	mg/l			@25°C

**Dodecamethylcyclohexasiloxane**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LD50	49d	>4,4	µg/l	Pimephales promelas		



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12.1. Toxicity to fish:	NOEC/NOEL	>60d	>=14	µg/l	Oncorhynchus mykiss	OECD 210 (Fish, Early-Life Stage Toxicity Test)	90d
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>4,6	µg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	>2	µg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	>= 2	µg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	4,47	%		OECD 310 (Ready Biodegradability - CO2 in sealed vessels (Headspace Test))	Not readily biodegradable CO2 evolution
12.3. Bioaccumulative potential:	Log Pow		8,87-9,45				
12.3. Bioaccumulative potential:	BCF	49d	1160			OECD 305 (Bioconcentration - Flow-Through Fish Test)	
12.5. Results of PBT and vPvB assessment							vPvB-substance, PBT-substance
Toxicity to bacteria:	EC50	3h	>100	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Water solubility:			5	µg/l			25°C

**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

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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)  
 20 01 29 detergents containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.  
 Pay attention to local and national official regulations.  
 E.g. suitable incineration plant.  
 E.g. dispose at suitable refuse site.

#### 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.  
 Recommended cleaner:  
 Water

## SECTION 14: Transport information

### General statements

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

14.1. UN number or ID number: Not applicable  
 14.2. UN proper shipping name: Not applicable  
 14.3. Transport hazard class(es): Not applicable  
 14.4. Packing group: Not applicable  
 14.5. Environmental hazards: Not applicable  
 Tunnel restriction code: Not applicable  
 Classification code: Not applicable  
 LQ: Not applicable  
 Transport category: Not applicable

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

14.1. UN number or ID number: Not applicable  
 14.2. UN proper shipping name: Not applicable  
 14.3. Transport hazard class(es): Not applicable  
 14.4. Packing group: Not applicable  
 14.5. Environmental hazards: Not applicable  
 Marine Pollutant: Not applicable  
 EmS: Not applicable  
 Segregation: Not applicable

#### Transport by air (IATA)

14.1. UN number or ID number: Not applicable  
 14.2. UN proper shipping name: Not applicable

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14.3. Transport hazard class(es): Not applicable  
 14.4. Packing group: Not applicable  
 14.5. Environmental hazards: Not applicable

**14.6. Special precautions for user**

Unless specified otherwise, general measures for safe transport must be followed.

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

Non-dangerous material according to Transport Regulations.

**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 maternity protection (national implementation of the Directive 92/85/EEC)!

Regulation (EC) No 1907/2006, Annex XVII

Decamethylcyclopentasiloxane

Dodecamethylcyclohexasiloxane

Octamethylcyclotetrasiloxane

Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC): ~ 9,8 %

**REGULATION (EC) No 648/2004**

5 % or over but less than 15 %

amphoteric surfactants

less than 5 %

non-ionic surfactants

cationic surfactants

perfumes

LINALOOL

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: 15

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
Eye Irrit. 2, H319	Classification based on toxicological analyses.
Skin Irrit. 2, H315	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.

H361f Suspected of damaging fertility.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

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H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
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.

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

#### 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

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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  
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

GB IRL M

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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:

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