

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

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

#### 1.1 Product identifier

### DEF Anti Crystal Additive Concentrate

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

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

Additive  
Cleaner

##### Uses advised against:

No information available at present.

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

GB

LIQUI MOLY GmbH  
Jerg-Wieland-Str. 4  
89081 Ulm-Lehr  
Tel.: (+49) 0731-1420-0  
Fax: (+49) 0731-1420-88

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:

GB

Landspítali- The National University Hospital of Iceland, tel. +354 543 2222 or 112 (valid only for Iceland)

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

+49 (0) 700 / 24 112 112 (LMR)  
+1 872 5888271 (LMR)

### 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 Dam.	1	H318-Causes serious eye damage.
Skin Corr.	1	H314-Causes severe skin burns and eye damage.

#### 2.2 Label elements

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

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
 Revision date / version: 24.10.2024 / 0003  
 Replacing version dated / version: 04.10.2023 / 0002  
 Valid from: 24.10.2024  
 PDF print date: 25.10.2024  
 DEF Anti Crystal Additive Concentrate



**Danger**

H314-Causes severe skin burns and eye damage.

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. 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.  
 P405-Store locked up.  
 P501-Dispose of contents / container to an approved waste disposal facility.

2-phenoxyethanol  
 D-Glucopyranose, oligomer, decyl octyl glycoside  
 D-glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

### 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).  
 The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).  
 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

D-glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides	
Registration number (REACH)	01-2119489418-23-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	600-975-8
CAS	110615-47-9
content %	1-<12
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Dam. 1, H318
Specific Concentration Limits and ATE	Skin Irrit. 2, H315: >=30 % Eye Dam. 1, H318: >12 % Eye Irrit. 2, H319: >12 %

D-Glucopyranose, oligomer, decyl octyl glycoside	
Registration number (REACH)	01-2119488530-36-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	500-220-1
CAS	68515-73-1
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Eye Dam. 1, H318

Page 3 of 18  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
 Revision date / version: 24.10.2024 / 0003  
 Replacing version dated / version: 04.10.2023 / 0002  
 Valid from: 24.10.2024  
 PDF print date: 25.10.2024  
 DEF Anti Crystal Additive Concentrate

<b>2-phenoxyethanol</b>	
<b>Registration number (REACH)</b>	01-2119488943-21-XXXX
<b>Index</b>	603-098-00-9
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	204-589-7
<b>CAS</b>	122-99-6
<b>content %</b>	1-<3
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Acute Tox. 4, H302 Eye Dam. 1, H318 STOT SE 3, H335
<b>Specific Concentration Limits and ATE</b>	ATE (oral): 1394 mg/kg

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

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.

Corneal damage.

Danger of blindness.

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

Page 4 of 18  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
Revision date / version: 24.10.2024 / 0003  
Replacing version dated / version: 04.10.2023 / 0002  
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DEF Anti Crystal Additive Concentrate

In case of fire the following can develop:

Oxides of carbon  
Toxic pyrolysis products.  
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) and dispose of according to Section 13.

### 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.

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.

Do not store with acids.

Store at room temperature.

Store in a dry place.

### 7.3 Specific end use(s)

No information available at present.

Page 5 of 18  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
 Revision date / version: 24.10.2024 / 0003  
 Replacing version dated / version: 04.10.2023 / 0002  
 Valid from: 24.10.2024  
 PDF print date: 25.10.2024  
 DEF Anti Crystal Additive Concentrate

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

D-glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,176	mg/l	
	Environment - marine		PNEC	0,018	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,0295	mg/l	
	Environment - sewage treatment plant		PNEC	5000	mg/l	
	Environment - sediment, freshwater		PNEC	1,516	mg/kg dw	
	Environment - sediment, marine		PNEC	0,065	mg/kg dw	
	Environment - soil		PNEC	0,654	mg/kg dw	
	Environment - oral (animal feed)		PNEC	111,11	mg/kg feed	
Consumer	Human - oral	Long term, systemic effects	DNEL	35,7	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	357000	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	124	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	595000	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	420	mg/kg	

D-Glucopyranose, oligomer, decyl octyl glycoside						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - sediment, freshwater		PNEC	1,516	mg/kg dw	
	Environment - sediment, marine		PNEC	0,152	mg/kg dw	
	Environment - soil		PNEC	0,654	mg/kg dw	
	Environment - water, sporadic (intermittent) release		PNEC	0,27	mg/l	
	Environment - sewage treatment plant		PNEC	560	mg/l	
	Environment - freshwater		PNEC	0,176	mg/l	
	Environment - marine		PNEC	0,0176	mg/l	
	Environment - oral (animal feed)		DNEL	111,11	mg/kg feed	
Consumer	Human - dermal	Long term	DNEL	357000	mg/kg bw/day	
Consumer	Human - inhalation	Long term	DNEL	124	mg/m3	
Consumer	Human - oral	Long term	DNEL	35,7	mg/kg bw/day	

Page 6 of 18  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
 Revision date / version: 24.10.2024 / 0003  
 Replacing version dated / version: 04.10.2023 / 0002  
 Valid from: 24.10.2024  
 PDF print date: 25.10.2024  
 DEF Anti Crystal Additive Concentrate

Workers / employees	Human - dermal	Long term	DNEL	595000	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term	DNEL	420	mg/m <sup>3</sup>	

<b>2-phenoxyethanol</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - soil		PNEC	1,26	mg/kg dw	
	Environment - sewage treatment plant		PNEC	24,8	mg/l	
	Environment - sediment, marine		PNEC	0,7237	mg/kg dw	
	Environment - marine		PNEC	0,0943	mg/l	
	Environment - sediment, freshwater		PNEC	7,2366	mg/kg dw	
	Environment - freshwater		PNEC	0,943	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	3,44	mg/l	
Consumer	Human - oral	Long term, systemic effects	DNEL	9,23	mg/kg bw/day	
Consumer	Human - oral	Short term, systemic effects	DNEL	9,23	mg/kg bw/day	
Consumer	Human - inhalation	Long term, local effects	DNEL	2,41	mg/m <sup>3</sup>	
Consumer	Human - inhalation	Short term, local effects	DNEL	2,41	mg/m <sup>3</sup>	
Consumer	Human - dermal	Long term, systemic effects	DNEL	10,42	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	20,83	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5,7	mg/m <sup>3</sup>	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,7	mg/m <sup>3</sup>	

## 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.

### 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).  
 If applicable  
 Protective gloves in butyl rubber (EN ISO 374).  
 Protective nitrile gloves (EN ISO 374).  
 Protective Neoprene® / polychloroprene 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.

Page 7 of 18  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
Revision date / version: 24.10.2024 / 0003  
Replacing version dated / version: 04.10.2023 / 0002  
Valid from: 24.10.2024  
PDF print date: 25.10.2024  
DEF Anti Crystal Additive Concentrate

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:  
Normally not necessary.  
If air supply is not sufficient, wear protective breathing apparatus.  
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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Turbid
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:	>63 °C
Auto-ignition temperature:	There is no information available on this parameter.
Decomposition temperature:	There is no information available on this parameter.
pH:	11,68
Kinematic viscosity:	1,1 mm <sup>2</sup> /s (40°C)
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:	1,0093 g/ml (20°C)
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



Page 8 of 18  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
 Revision date / version: 24.10.2024 / 0003  
 Replacing version dated / version: 04.10.2023 / 0002  
 Valid from: 24.10.2024  
 PDF print date: 25.10.2024  
 DEF Anti Crystal Additive Concentrate

None known

### 10.5 Incompatible materials

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  
 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).

DEF Anti Crystal Additive Concentrate						
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:						n.d.a.
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.

D-glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides						
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)	
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	OECD 406 (Skin Sensitisation)	No (skin contact), Analogous conclusion
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:				Mammalian	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative Chinese hamster
Reproductive toxicity:				Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Reproductive toxicity (Developmental toxicity):	NOAEL	1000	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative



Page 9 of 18  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
 Revision date / version: 24.10.2024 / 0003  
 Replacing version dated / version: 04.10.2023 / 0002  
 Valid from: 24.10.2024  
 PDF print date: 25.10.2024  
 DEF Anti Crystal Additive Concentrate

Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	1000	mg/kg bw/d	Rat	Regulation (EC) 440/2008 B.26 (SUB-CHRONIC ORAL TOXICITY TEST REPEATED DOSE 90 - DAY (RODENTS))	
Symptoms:						eyes, reddened, watering eyes, blisters by skin-contact, reddening of the skin, stomach pain

**D-Glucopyranose, oligomer, decyl octyl glycoside**

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	Rabbit	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)	Eye Dam. 1
Respiratory or skin sensitisation:				Guinea pig	Regulation (EC) 440/2008 B.6 (SKIN SENSITISATION)	Not sensitising
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Reproductive toxicity (Developmental toxicity):	NOAEL	1000	mg/kg bw/d	Rat	OECD 421 (Reproduction/Developmental Toxicity Screening Test)	Negative
Reproductive toxicity (Effects on fertility):	NOAEL	1000	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	100	mg/kg bw/d	Rat	Regulation (EC) 440/2008 B.26 (SUB-CHRONIC ORAL TOXICITY TEST REPEATED DOSE 90 - DAY (RODENTS))	
Symptoms:						watering eyes, eyes, reddened, reddening of the skin, blisters by skin-contact, stomach pain

**2-phenoxyethanol**

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	1394	mg/kg			

Acute toxicity, by dermal route:	LD50	2214	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LD50	>1	mg/l/6h	Rat		Mist, Maximum achievable concentration.
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, Does not conform with EU classification.
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Respiratory or skin sensitisation:				Human being		Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Rat	OECD 475 (Mammalian Bone Marrow Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative Chinese hamster
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative Chinese hamster
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:				Rat	OECD 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells In Vivo)	Negative
Reproductive toxicity:	NOAEL	~ 375	mg/kg bw/d	Mouse		
Reproductive toxicity (Developmental toxicity):		1000	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	LDLo	>500	mg/kg	Rabbit		
Specific target organ toxicity - repeated exposure (STOT-RE):	LDLo	>80	mg/kg	Rat		
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	700	mg/kg bw/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	(90d)
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	400	mg/kg/d	Rat		
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	0,0482	mg/l	Rat	OECD 412 (Subacute Inhalation Toxicity - 28-Day Study)	Target organ(s): respiratory organs



Page 12 of 18  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
 Revision date / version: 24.10.2024 / 0003  
 Replacing version dated / version: 04.10.2023 / 0002  
 Valid from: 24.10.2024  
 PDF print date: 25.10.2024  
 DEF Anti Crystal Additive Concentrate

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: No
Other information:	AOX		0	%		According to the recipe, contains no AOX.

**D-glucopyranose, oligomeric, C10-16 (even numbered) alkyl glycosides**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOEC/NOEL	28d	1,8	mg/l	Brachydanio rerio	OECD 204 (Fish, Prolonged Toxicity Test - 14-Day Study)	
12.1. Toxicity to fish:	LC50	96h	2,95-5,9	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	LC50	48h	7-14	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	1-4	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	5-38	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	88	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Kow		<=-0,07				Lowat 20 °C
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.6. Endocrine disrupting properties:							No

**D-Glucopyranose, oligomer, decyl octyl glycoside**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	126	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	28d	1-3,2	mg/l	Brachydanio rerio	OECD 204 (Fish, Prolonged Toxicity Test - 14-Day Study)	

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	21d	1-4	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	27,22	mg/l	Desmodesmus subspicatus	DIN 38412 T.9	
12.2. Persistence and degradability:	DOC	28d	100	%	activated sludge	OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		<1,77				Low
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	6h	>560	mg/l	Pseudomonas putida		
Toxicity to annelids:		14d	>=654	mg/kg	Eisenia foetida		

<b>2-phenoxyethanol</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:	NOEC/NOEL	34d	23	mg/l	Pimephales promelas	OECD 210 (Fish, Early-Life Stage Toxicity Test)	
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	LC50	96h	344	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	9,43	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction 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:	LOEC/LOEL	21d	22,5	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	>90	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.2. Persistence and degradability:		15d	>90	%		OECD 301 A (Ready Biodegradability - DOC Die-Away Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		0,35			OECD 305 (Bioconcentration - Flow-Through Fish Test)	

12.3. Bioaccumulative potential:	Log Kow		1,16			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	
12.3. Bioaccumulative potential:	Log Pow		1,2			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	A notable biological accumulation potential is not to be expected (LogPow 1-3). 23°C
12.4. Mobility in soil:	pOC		0-50				
12.4. Mobility in soil:	H (Henry)		0,00000 02	atm*m3/m ol			
12.4. Mobility in soil:	Koc		40,74				High
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC20	30min	~620	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Toxicity to bacteria:	EC50	17h	880	mg/l	Pseudomonas putida	DIN 38412 T.8	
Other information:	ThOD		2,18	g/g			
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.
Toxicity to annelids:	LC50	14d	1000	mg/kg	Eisenia foetida	OECD 207 (Earthworm, Acute Toxicity Tests)	

## 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

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.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

Untampered packaging can be recycled.

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
 Revision date / version: 24.10.2024 / 0003  
 Replacing version dated / version: 04.10.2023 / 0002  
 Valid from: 24.10.2024  
 PDF print date: 25.10.2024  
 DEF Anti Crystal Additive Concentrate

## 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

#### Transport by air (IATA)

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

#### 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 the protection of young people at work (national implementation of the Directive 94/33/EC)!  
 Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC): 0 %

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

less than 5 %

non-ionic surfactants

PHENOXYETHANOL

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, 4, 8, 11, 12, 15, 16



Page 16 of 18  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
 Revision date / version: 24.10.2024 / 0003  
 Replacing version dated / version: 04.10.2023 / 0002  
 Valid from: 24.10.2024  
 PDF print date: 25.10.2024  
 DEF Anti Crystal Additive Concentrate

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 Dam. 1, H318	Classification based on the pH value.
Skin Corr. 1, H314	Classification based on the pH value.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents.  
 H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H335 May cause respiratory irritation.

Eye Dam. — Serious eye damage  
 Skin Corr. — Skin corrosion  
 Skin Irrit. — Skin irritation  
 Acute Tox. — Acute toxicity - oral  
 STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation

### 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
EC <sub>x</sub> , EL <sub>x</sub> (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)
ErC <sub>x</sub> , E <sub>μ</sub> C <sub>x</sub> , ErL <sub>x</sub> (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
K <sub>oc</sub>	Adsorption coefficient of organic carbon in the soil
K <sub>ow</sub>	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 K <sub>oc</sub>	Logarithm of adsorption coefficient of organic carbon in the soil
Log K <sub>ow</sub> , Log P <sub>ow</sub>	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

Page 18 of 18

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

Revision date / version: 24.10.2024 / 0003

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DEF Anti Crystal Additive Concentrate

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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