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Revision date / version: 20.01.2023 / 0016
Replacing version dated / version: 14.07.2022 / 0015
Valid from: 20.01.2023
PDF print date: 20.01.2023
Drilling and Cutting Emulsion - water soluble
5 l Art.: 6580 5810, Art.: 6584 5810

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

1.1 Product identifier

Drilling and Cutting Emulsion - water soluble
5 l Art.: 6580 5810, Art.: 6584 5810

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

Relevant identified uses of the substance or mixture:

Cooling lubricant

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

Theo Förch GmbH & Co. KG
Theo-Förch-Str. 11 – 15
74196 Neuenstadt
Tel.: 07139/95-0
Fax: 07139/95-199
Email: info@foerch.de
Homepage: www.foerch.com

Details of the supplier of the safety data sheet see section 16 of this safety data sheet.

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:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (TFC)

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 Sens.	1	H317-May cause an allergic skin reaction.
Aquatic Chronic	3	H412-Harmful to aquatic life with long lasting effects.

2.2 Label elements

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

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Danger

H318-Causes serious eye damage. H317-May cause an allergic skin reaction. H412-Harmful to aquatic life with long lasting effects.

P261-Avoid breathing vapours or spray. 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. P310-Immediately call a POISON CENTER / doctor.

1,2-benzisothiazol-3(2H)-one
 2-amino-2-ethylpropanediol
 Amides, C12-18 and C18-unsatd., N-(hydroxyethyl), ethoxylated
 Polysulfides, di-tert-dodecyl

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

Distillates (petroleum), hydrotreated light naphthenic	
Registration number (REACH)	01-2119480375-34-XXXX
Index	649-466-00-2
EINECS, ELINCS, NLP, REACH-IT List-No.	265-156-6
CAS	64742-53-6
content %	50-<70
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Asp. Tox. 1, H304

Alcohols, C16-18 and C18-unsatd., ethoxylated	
Registration number (REACH)	01-2119489407-26-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	500-236-9
CAS	68920-66-1
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Aquatic Chronic 2, H411

Distillates (petroleum), hydrotreated heavy paraffinic	
Registration number (REACH)	01-2119484627-25-XXXX
Index	649-467-00-8
EINECS, ELINCS, NLP, REACH-IT List-No.	265-157-1
CAS	64742-54-7
content %	1-<10

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Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Asp. Tox. 1, H304
2-(2-butoxyethoxy)ethanol	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119475104-44-XXXX
Index	603-096-00-8
EINECS, ELINCS, NLP, REACH-IT List-No.	203-961-6
CAS	112-34-5
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Eye Irrit. 2, H319
Polysulfides, di-tert-dodecyl	
Registration number (REACH)	01-2119540516-41-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	270-335-7
CAS	68425-15-0
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Sens. 1B, H317
Amides, C12-18 and C18-unsatd., N-(hydroxyethyl), ethoxylated	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	500-350-9
CAS	157707-44-3
content %	1-<3
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Eye Dam. 1, H318
2-amino-2-ethylpropanediol	
Registration number (REACH)	01-2119958191-37-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	204-101-2
CAS	115-70-8
content %	1-<3
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Eye Dam. 1, H318
1,2-benzisothiazol-3(2H)-one	
Registration number (REACH)	---
Index	613-088-00-6
EINECS, ELINCS, NLP, REACH-IT List-No.	220-120-9
CAS	2634-33-5
content %	0,01-<0,05
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411
Specific Concentration Limits and ATE	Skin Sens. 1, H317: >=0,05 %
Pyridine-2-thiol 1-oxide, sodium salt	
Registration number (REACH)	---
Index	613-344-00-7
EINECS, ELINCS, NLP, REACH-IT List-No.	223-296-5
CAS	3811-73-2
content %	0,0025-<0,025
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH070 Acute Tox. 3, H311 Acute Tox. 3, H331 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 1, H372 (nervous system) Aquatic Acute 1, H400 (M=100) Aquatic Chronic 2, H411

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Specific Concentration Limits and ATE

ATE (oral): 500 mg/kg
ATE (dermal): 790 mg/kg
ATE (as inhalation, Dusts or mist): 0,5 mg/l

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.

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. Call a doctor immediately, keep datasheet at hand

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.

eyes, reddened
watering eyes
Irritation of the eyes
reddening of the skin
Allergic reaction
gastrointestinal disturbances

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Water jet spray/foam/CO2/dry extinguisher

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:
Oxides of carbon
Oxides of nitrogen
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.
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

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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.
Fill the absorbed material into lockable containers.
For large quantities:
Pump product off

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 formation of oil mist.
Avoid contact with eyes or skin.
Do not heat to temperatures close to flash point.
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 oxidizing agents.
Store in a well-ventilated place.
Store cool.
Store in a dry place.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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

Chemical Name		Oil mist, mineral	
WEL-TWA:	5 mg/m3 (Mineral oil, excluding metal working fluids, ACGIH)	WEL-STEL:	---
Monitoring procedures:		- Draeger - Oil Mist 1/a (67 33 031)	
BMGV:	---	Other information: ---	

Alcohols, C16-18 and C18-unsatd., ethoxylated						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,002	mg/l	
	Environment - soil		PNEC	1	mg/kg	
	Environment - sewage treatment plant		PNEC	10000	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,51	mg/l	
	Environment - sediment, freshwater		PNEC	6,33	mg/kg	
	Environment - marine		PNEC	0,002	mg/l	
	Environment - sediment, marine		PNEC	6,33	mg/kg	
Consumer	Human - oral		DNEL	25	mg/kg bw/day	
Consumer	Human - dermal		DNEL	1250	mg/kg bw/d	
Consumer	Human - inhalation		DNEL	87	mg/m3	
Workers / employees	Human - dermal		DNEL	2080	mg/kg bw/d	
Workers / employees	Human - inhalation		DNEL	294	mg/m3	

Distillates (petroleum), hydrotreated heavy paraffinic						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - oral (animal feed)		PNEC	9,33	mg/kg feed	
Consumer	Human - inhalation	Long term, local effects	DNEL	1,2	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,4	mg/m3	

2-(2-butoxyethoxy)ethanol						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - marine		PNEC	0,11	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	11	mg/l	
	Environment - sediment, freshwater		PNEC	4,4	mg/kg	
	Environment - sediment, marine		PNEC	0,44	mg/kg	
	Environment - soil		PNEC	0,32	mg/kg	
	Environment - sewage treatment plant		PNEC	100	mg/l	
	Environment - oral (animal feed)		PNEC	56	mg/kg	
Consumer	Human - inhalation	Short term, local effects	DNEL	60,7	mg/m3	

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Consumer	Human - dermal	Long term, systemic effects	DNEL	50	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	40,5	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	5	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	6,25	mg/kg bw/d	
Consumer	Human - inhalation	Long term, local effects	DNEL	40,5	mg/m3	
Workers / employees	Human - oral	Long term, local effects	DNEL	67,5	mg/m3	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	89	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	67,5	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	20	mg/kg	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	101,2	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	67,5	mg/m3	

Polysulfides, di-tert-dodecyl						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - sewage treatment plant		PNEC	1000	mg/l	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	5,8	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	1,66	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	16,6	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	23,5	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	33,3	mg/kg bw/day	

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
 (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE).
 (11) = Inhalable fraction (Directive 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 (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/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. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
 ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
 (13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 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.

Not required in contained systems, as no exposure normally occurs here.

If operational exposure (e.g. repair or maintenance work) cannot be avoided, corresponding protective measures need to be taken.

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".

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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 Neoprene® / polychloroprene gloves (EN ISO 374).
 Protective nitrile gloves (EN ISO 374).
 Minimum layer thickness in mm:
 >= 0,4
 Permeation time (penetration time) in minutes:
 >= 480

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.
 The recommended maximum wearing time is 50% of breakthrough time.
 Protective hand cream recommended.

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

Respiratory protection:
 If OES or MEL is exceeded.
 Filter A P2 (EN 14387), code colour brown, white
 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 20°C
Colour:	Yellow
Odour:	Mild
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:	Combustible.
Lower explosion limit:	There is no information available on this parameter.
Upper explosion limit:	There is no information available on this parameter.
Flash point:	>110 °C
Auto-ignition temperature:	>270 °C
Decomposition temperature:	There is no information available on this parameter.
pH:	9
Kinematic viscosity:	45 mm ² /s (40°C)
Solubility:	Mixable
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	0,1 hPa (20°C)

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Density and/or relative density: 0,91 g/cm³
 Relative vapour density: There is no information available on this parameter.
 Particle characteristics: Does not apply to liquids.

9.2 Other information

Explosives: Product is not explosive. Formation of highly flammable vapour/air mixtures possible.
 Oxidising liquids: There is no information available on this parameter.
 Solvents content: >1-1,5 % (Organic solvents)

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

T > 60°C

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:						n.d.a.
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.

Distillates (petroleum), hydrotreated light naphthenic

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	Analogous conclusion
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>5,53	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol, Analogous conclusion
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant, Analogous conclusion
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant

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Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact), Analogous conclusion
Aspiration hazard:						Yes

Alcohols, C16-18 and C18-unsatd., ethoxylated

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg			
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	Regulation (EC) 440/2008 B.1 (ACUTE ORAL TOXICITY)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg		OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:					OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant

Distillates (petroleum), hydrotreated heavy paraffinic

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	Analogous conclusion
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	Analogous conclusion
Acute toxicity, by inhalation:	LC50	>5,53	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol, Analogous conclusion
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant, Analogous conclusion
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant, Analogous conclusion
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact), Analogous conclusion
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative Chinese hamster
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Mammalian	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative, Analogous conclusion
Carcinogenicity:				Mouse	OECD 451 (Carcinogenicity Studies)	Negative, Analogous conclusion 78 weeks, dermal
Reproductive toxicity:				Rat	OECD 421 (Reproduction/Developmental Toxicity Screening Test)	Negative, Analogous conclusion oral
Reproductive toxicity (Developmental toxicity):				Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion dermal

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Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	~1000	mg/kg bw/d	Rabbit	OECD 410 (Repeated Dose Dermal Toxicity - 90-Day)	Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	<30	mg/kg	Rat	OECD 411 (Subchronic Dermal Toxicity - 90-day Study)	Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOEC	~220	mg/m3	Rat	OECD 412 (Subacute Inhalation Toxicity - 28-Day Study)	Analogous conclusion, Aerosol
Symptoms:						coughing, respiratory distress, nausea and vomiting., diarrhoea
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	LOAEL	125	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Analogous conclusion

2-(2-butoxyethoxy)ethanol

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by oral route:	LD50	2410	mg/kg	Mouse	OECD 401 (Acute Oral Toxicity)	fasted animals
Acute toxicity, by dermal route:	LD50	2764	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>29	ppm	Rat	OECD 403 (Acute Inhalation Toxicity)	Dusts or mist
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative Chinese hamster
Germ cell mutagenicity:				Mouse	OECD 475 (Mammalian Bone Marrow Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative Chinese hamster
Reproductive toxicity:		1000	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion
Aspiration hazard:						No
Symptoms:						breathing difficulties, respiratory distress, diarrhoea, coughing, mucous membrane irritation, dizziness, watering eyes, nausea

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Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	250	mg/kg	Rat		
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	< 200	mg/kg bw/d	Rat	OECD 411 (Subchronic Dermal Toxicity - 90-day Study)	Male
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	14	ppm	Rat		Vapours

Polysulfides, di-tert-dodecyl						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	19500	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>15,5	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:		4	h	Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Slightly irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Slightly irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Skin Sens. 1B
Germ cell mutagenicity:					(Ames-Test)	Negative
Reproductive toxicity (Developmental toxicity):	NOAEL	1000	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	1000	mg/kg/d	Rat	OECD 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)	Negative
Aspiration hazard:						No

1,2-benzisothiazol-3(2H)-one						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	1193	mg/kg	Rat		
Acute toxicity, by oral route:	LD50	490	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	4115	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	0,25	mg/l/4h	Rat		
Skin corrosion/irritation:						Skin Irrit. 2
Serious eye damage/irritation:						Eye Dam. 1
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Skin Sens. 1
Germ cell mutagenicity:						Negative
Symptoms:						vomiting, headaches, gastrointestinal disturbances, nausea

Pyridine-2-thiol 1-oxide, sodium salt						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	500	mg/kg			
Acute toxicity, by dermal route:	ATE	790	mg/kg			
Acute toxicity, by inhalation:	ATE	0,5	mg/l			Dusts or mist
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 Irrit. 2

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Respiratory or skin sensitisation:				Guinea pig	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Skin Sens. 1
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Carcinogenicity:				Mouse	OECD 451 (Carcinogenicity Studies)	Negative
Reproductive toxicity:				Rat	OECD 416 (Two-generation Reproduction Toxicity Study)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	0,5	mg/kg		OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Symptoms:						cornea opacity, cramps, fatigue, mucous membrane irritation, trembling

11.2. Information on other hazards

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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).

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Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
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:							n.d.a.
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.

Distillates (petroleum), hydrotreated light naphthenic

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	10	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.2. Persistence and degradability:		28d	31	%	activated sludge	OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily but inherent biodegradable., Mechanical precipitation possible.
12.1. Toxicity to algae:	NOEC/NOEL	72h	> 100	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	>10000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	>100	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Water solubility:							Insoluble

Alcohols, C16-18 and C18-unsatd., ethoxylated

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	108	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EL50	48h	51	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC20	72h	0,195	mg/l	Desmodesmus subspicatus		
12.2. Persistence and degradability:		28d	99	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
12.2. Persistence and degradability:						OECD 301 A-F (Ready Biodegradability)	Readily biodegradable
Toxicity to bacteria:	EC50	30min	9500	mg/l	Pseudomonas putida	DIN 38412 T.27 (Draft)	
Toxicity to bacteria:	EC10	17h	>10000	mg/l	Pseudomonas putida	DIN 38412 T.8	
Other information:	BOD/COD		>60	%			
Other information:	DOC		>70	%			

Distillates (petroleum), hydrotreated heavy paraffinic

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOEC/NOEL	96h	>100	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	14d	1000	mg/l	Oncorhynchus mykiss	QSAR	

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12.1. Toxicity to daphnia:	EL50	48h	10000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Analogous conclusion
12.1. Toxicity to daphnia:	LL50	96h	>10000	mg/l		OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	10	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	Analogous conclusion
12.1. Toxicity to algae:	NOEC/NOEL	72h	>=100	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	31	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable, Analogous conclusion
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Water solubility:							Insoluble

2-(2-butoxyethoxy)ethanol

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	>=100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to fish:	LC50	96h	1300	mg/l	Lepomis macrochirus	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	NOEC/NOEL	96h	>100	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	76	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	
12.2. Persistence and degradability:		28d	100	%	activated sludge	OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		0,9-1			OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)	Slight
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

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Toxicity to bacteria:	EC10	30min	>1995	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

Polysulfides, di-tert-dodecyl

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.2. Persistence and degradability:		28d	0	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable
12.3. Bioaccumulative potential:	Log Kow		>12				(calculated)
12.3. Bioaccumulative potential:	BCF	14d	<1		Cyprinus caprio	OECD 305 (Bioconcentration - Flow-Through Fish Test)	(22°C)
12.3. Bioaccumulative potential:	Log Koc		8,5				(estimated)
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	>=0,1	mg/l	Daphnia magna	84/449/EEC C.2	Water toxicology is above the water-solubility value.
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>0,79	µg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	Water toxicology is above the water-solubility value.
12.1. Toxicity to algae:	NOEC/NOEL	72h	>=0,08	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	Water toxicology is above the water-solubility value.
Toxicity to bacteria:		16h	10000	mg/l	Pseudomonas putida		
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

1,2-benzisothiazol-3(2H)-one

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to bacteria:	EC50	3h	0,4	mg/l	Pseudomonas putida		
12.1. Toxicity to fish:	LC50	96h	2,18	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.2. Persistence and degradability:			90	%		OECD 302 B (Inherent Biodegradability - Zahn- Wellens/EMPA Test)	

12.3. Bioaccumulative potential:	BCF		6,95			OECD 305 (Bioconcentration - Flow-Through Fish Test)	
12.1. Toxicity to daphnia:	EC50	48h	2,94	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	0,11	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,027-0,0403	mg/l	Skeletonema costatum	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:	DOC		>70	%		OECD 303 A (Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units)	
12.2. Persistence and degradability:						OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		1,3				
12.3. Bioaccumulative potential:	Log Pow		0,7			OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)	
Toxicity to bacteria:	EC20	3h	3,3	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Pyridine-2-thiol 1-oxide, sodium salt

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.3. Bioaccumulative potential:	Log Kow		-1--2,64				
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,033	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to fish:	LC50	96h	0,00767	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	LC50	48h	0,150	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	LC50	72h	0,22	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	

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12.2. Persistence and degradability:		28d	79	%	activated sludge	OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		-3,8				

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)
 12 01 09 machining emulsions and solutions free of halogens

Recommendation:

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

For contaminated packing material

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

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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:

Regulation (EC) No 1907/2006, Annex XVII

2-(2-butoxyethoxy)ethanol

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!

Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC):

1,5 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:

3, 11, 12

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 according to calculation procedure.
Skin Sens. 1, H317	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 (specified in Section 2 and 3).

H317 May cause an allergic skin reaction.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

EUH070 Toxic by eye contact.

Eye Dam. — Serious eye damage

Skin Sens. — Skin sensitization

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Asp. Tox. — Aspiration hazard

Skin Irrit. — Skin irritation

Eye Irrit. — Eye irritation

Acute Tox. — Acute toxicity - oral

Aquatic Acute — Hazardous to the aquatic environment - acute

Acute Tox. — Acute toxicity - dermal

Acute Tox. — Acute toxicity - inhalation

STOT RE — Specific target organ toxicity - repeated exposure

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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.

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Drilling and Cutting Emulsion - water soluble
5 I Art.: 6580 5810, Art.: 6584 5810

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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
bw body weight
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
dw	dry weight
e.g.	for example (abbreviation of Latin 'exempli gratia'), for instance
EbCx, EyCx, EbLx (x = 10, 50)	Effect Concentration/Level of x % on reduction of the biomass (algae, plants)
EC	European Community
ECHA	European Chemicals Agency
ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100)	Effect Concentration/Level for x % effect
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EN	European Norms
EPA	United States Environmental Protection Agency (United States of America)
ErCx, EuCx, 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
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.	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
wwt	wet weight

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Drilling and Cutting Emulsion - water soluble

5 l Art.: 6580 5810, Art.: 6584 5810

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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