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

#### 1.1 Product identifier

### **Marine Diesel Schutz**

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

Biocide

#### **Uses advised against:**

No information available at present.

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

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:

#### 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 statement** Hazard category

Acute Tox.	4	H332-Harmful if inhaled.
Acute Tox.	4	H302-Harmful if swallowed.
Eye Dam.	1	H318-Causes serious eye damage.
Skin Sens.	1	H317-May cause an allergic skin reaction.
Asp. Tox.	1	H304-May be fatal if swallowed and enters airways.
Repr.	2	H361d-Suspected of damaging the unborn child.
Aquatic Chronic	2	H411-Toxic to aquatic life with long lasting effects.

### 2.2 Label elements

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



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Danger

H332-Harmful if inhaled. H302-Harmful if swallowed. H318-Causes serious eye damage. H317-May cause an allergic skin reaction. H304-May be fatal if swallowed and enters airways. H361d-Suspected of damaging the unborn child. H411-Toxic 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.

P201-Obtain special instructions before use. P261-Avoid breathing vapours or spray. P271-Use only outdoors or in a well-ventilated area. P273-Avoid release to the environment. P280-Wear protective gloves / protective clothing / eye protection / face protection.

P301+P310-IF SWALLOWED: Immediately call a POISON CENTER / doctor. P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313-IF exposed or concerned: Get medical advice / attention. P331-Do NOT induce vomiting.

P405-Store locked up.

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

EUH044-Risk of explosion if heated under confinement.

EUH066-Repeated exposure may cause skin dryness or cracking.

2-ethylhexyl nitrate

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

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics

Methyl salicylate

# 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**

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Registration number (REACH)	01-2119457273-39-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	918-481-9
CAS	
content %	40-<50
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH066
	Asp. Tox. 1, H304

2-ethylhexyl nitrate	
Registration number (REACH)	01-2119539586-27-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	248-363-6
CAS	27247-96-7



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content %	20-<30
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH066
	EUH044
	Acute Tox. 4, H302
	Acute Tox. 4, H312
	Acute Tox. 4, H332
	Aquatic Chronic 2, H411

Methyl salicylate	
Registration number (REACH)	01-2119515671-44-XXXX
Index	607-749-00-8
EINECS, ELINCS, NLP, REACH-IT List-No.	204-317-7
CAS	119-36-8
content %	10-<20
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302
	Eye Dam. 1, H318
	Skin Sens. 1B, H317
	Repr. 2, H361d
	Aquatic Chronic 3, H412
Specific Concentration Limits and ATE	ATE (oral): 890 mg/kg

Ethanediol	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119456816-28-XXXX
Index	603-027-00-1
EINECS, ELINCS, NLP, REACH-IT List-No.	203-473-3
CAS	107-21-1
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302
	STOT RF 2 H373 (kidneys) (oral)

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 %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 2, H330
	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 %

2-Ethylhexanol	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119487289-20-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	203-234-3
CAS	104-76-7
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H332
	Skin Irrit. 2, H315
	Eye Irrit. 2, H319
	STOT SE 3. H335

Alcohols, C16-18 and C18-unsatd., ethoxylated	
Registration number (REACH)	
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	
CAS	68920-66-1
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315
	Aquatic Chronic 2, H411



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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 %	<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Asp. Tox. 1, H304

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.

If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here. Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7)."

Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here.

#### **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 - 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. Consult doctor immediately.

Danger of aspiration.

In case of vomiting, keep head low so that the stomach content does not reach the lungs.

#### 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.

Ingestion:

Nausea

Vomiting

Danger of aspiration.

Oedema of the lungs

Chemical pneumonitis (condition similar to pneumonia)

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

Gastric lavage (stomach washing) only under endotracheal intubation.

Subsequent observation for pneumonia and pulmonary oedema.

#### **SECTION 5: Firefighting measures**

# 5.1 Extinguishing media Suitable extinguishing media

Water jet spray/foam/CO2/dry extinguisher

#### Unsuitable extinguishing media



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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

Danger of bursting (explosion) when heated

Possible build up of explosive/highly flammable vapour/air mixture.

#### 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.

#### **SECTION 6: Accidental release measures**

# 6.1 Personal precautions, protective equipment and emergency procedures

# 6.1.1 For non-emergency personnel

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

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

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

Keep unprotected persons away.

Avoid inhalation, and 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

Resolve leaks if this possible without risk.

If leakage occurs, dam up.

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.

Keep away from sources of ignition - Do not smoke.

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.

Pregnant women should avoid contact with this product.

#### 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.



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# 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.

Under all circumstances prevent penetration into the soil.

Keep protected from direct sunlight and temperatures over 50°C.

Store in a well ventilated place.

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

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40): 800 mg/m3

Chemical Name Hydrocarbons, C	10-C13, n-alkanes, isoalkanes, cyclics,	<2% aromatics	
WEL-TWA: 800 mg/m3	WEL-STEL:		
Monitoring procedures: -	Draeger - Hydrocarbons 0,1%/c (81 03		
-	Draeger - Hydrocarbons 2/a (81 03 581	1)	
-	Compur - KITA-187 S (551 174)		
BMGV:			OEL acc. to RCP-method,
	pa	aragraphs 84-87, El	H40)
© Chemical Name Ethanediol			
WEL-TWA: 10 mg/m3 (particulate), 52 mg/m3	WEL-STEL: 104 mg/m3 (vapour) (	(WEL), 40 ppm	
(vapour) (WEL), 20 ppm (52 mg/m3) (EU)	(104 mg/m3) (EU)		
Monitoring procedures: -	Draeger - Ethylene Glycol 10 (5) (81 01	1 351)	
-	Compur - KITA-232 SA (502 342)		
-	Compur - KITA-232 SB (550 267)		
-	NIOSH 5500 (ETHYLENE GLYCOL) -	1993	
-	NIOSH 5523 (GLYCOLS) - 1996		
	OSHA PV2024 (Ethylene glycol) - 1999	9 - EU project BC/C	EN/ENTR/000/2002-16 card
-	11-2 (2004)		
BMGV:	Ot	ther information:	Sk (particulate, vapour)
Chemical Name 2-Ethylhexanol			
WEL-TWA: 1 ppm (5,4 mg/m3) (WEL, EU)	WEL-STEL:		
Monitoring procedures: -	Draeger - Alcohol 100/a (CH 29 701)		
BMGV:	Of	ther information: -	
© Chemical Name Oil mist, mineral			
WEL-TWA: 5 mg/m3 (Mineral oil, excluding metal	WEL-STEL:		
working fluids, ACGIH)			
Monitoring procedures: -	Draeger - Oil Mist 1/a (67 33 031)		
BMGV:	Ot	ther information: -	

2-ethylhexyl nitrate						
Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
	Environmental					
	compartment					
	Environment - freshwater		PNEC	0,8	μg/l	
	Environment - marine		PNEC	0,08	μg/l	
	Environment - sediment		PNEC	0,00074	mg/kg dw	
	Environment - soil		PNEC	0,00019	mg/kg dw	
				1		
Consumer	Human - dermal	Long term, systemic	DNEL	0,52	mg/kg	
		effects			bw/day	



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Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,087	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,025	mg/kg bw/day	
Consumer	Human - dermal	Long term, local effects	DNEL	0,022	mg/cm2	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	1	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,35	mg/m3	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,044	mg/cm2	

Area of application	Exposure route / Environmental	Effect on health	Descriptor	Value	Unit	Note
	compartment					
	Environment - freshwater		PNEC	20	μg/l	
	Environment - marine		PNEC	2	μg/l	
	Environment - sewage treatment plant		PNEC	140	mg/l	
	Environment - soil		PNEC	0,35	mg/kg dw	
	Environment - sediment, freshwater		PNEC	0,52	mg/kg dw	
	Environment - sediment, marine		PNEC	0,052	mg/kg dw	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	4	mg/m3	
Consumer	Human - inhalation	Short term, local effects	DNEL	213	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	3	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	1	mg/kg bw/day	
Consumer	Human - oral	Short term, local effects	DNEL	5	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	17,5	mg/m3	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	285	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	6	mg/kg bw/day	

Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
	Environmental					
	compartment					
	Environment - freshwater		PNEC	10	mg/l	
	Environment - marine		PNEC	1	mg/l	
	Environment - sediment		PNEC	20,9	mg/kg	
	Environment - soil		PNEC	1,53	mg/kg	
	Environment - sewage		PNEC	199,5	mg/l	
	treatment plant					
	Environment - water,		PNEC	10	mg/l	
	sporadic (intermittent)					
	release					
	Environment - sediment,		PNEC	37	mg/kg dry	
	freshwater				weight	
	Environment - sediment,		PNEC	3,7	mg/kg dry	
	marine				weight	
Consumer	Human - inhalation	Long term, local effects	DNEL	7	mg/m3	
Consumer	Human - dermal	Long term, systemic	DNEL	53	mg/kg	
		effects				
Workers / employees	Human - inhalation	Long term, local effects	DNEL	35	mg/m3	



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Workers / employees	Human - dermal	Long term, systemic	DNEL	106	mg/kg bw/d	
		effects				

1,2-benzisothiazol-3(2H)- Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
Area or application	Environmental	Effect of ficalti	Descriptor	Value	O I III	14010
	compartment					
	Environment - freshwater		PNEC	0,00403	mg/l	
	Environment - marine		PNEC	0,00040	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,0011	mg/l	
	Environment - sewage treatment plant		PNEC	1,03	mg/l	
	Environment - sediment, freshwater		PNEC	0,0499	mg/kg	
	Environment - sediment, marine		PNEC	0,00499	mg/kg	
	Environment - soil		PNEC	3	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1,2	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,345	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	6,81	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,966	mg/kg	

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,017	mg/l	
	Environment - marine		PNEC	0,0017	mg/l	
	Environment - sporadic (intermittent) release		PNEC	0,17	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	0,284	mg/kg dw	
	Environment - sediment, marine		PNEC	0,028	mg/kg dw	
	Environment - soil		PNEC	0,047	mg/kg dw	
	Environment - oral (animal feed)		PNEC	55	mg/kg feed	
Consumer	Human - oral	Long term, systemic effects	DNEL	1,1	mg/kg body weight/day	
Consumer	Human - inhalation	Short term, local effects	DNEL	53,2	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	11,4	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,3	mg/m3	
Consumer	Human - oral	Short term, systemic effects	DNEL	1,1	mg/kg bw/day	
Consumer	Human - inhalation	Long term, local effects	DNEL	26,6	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	12,8	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	23	mg/kg bw/day	



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Workers / employees	Human - inhalation	Short term, local	DNEL	53,2	mg/m3	
		effects				
Workers / employees	Human - inhalation	Long term, local effects	DNEL	53,2	mg/m3	
Workers / employees	Human - oral	Long term, systemic	DNEL	12,8	mg/m3	
		effects				

Distillates (petroleum), hydr	otreated heavy paraffinic					
Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
	Environmental					
	compartment					
	Environment - oral (animal		PNEC	9,33	mg/kg feed	
	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	

- 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.

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).

If applicable

Protective Neoprene® / polychloroprene gloves (EN ISO 374).

Protective nitrile gloves (EN ISO 374).

Protective gloves made of fluorocarbon rubber (EN ISO 374).

Minimum layer thickness in mm:

0.5

Permeation time (penetration time) in minutes:

> 480

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

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

Protective hand cream recommended.



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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

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: Brown

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: Flammable

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:

Decomposition temperature:

There is no information available on this parameter.

There is no information available on this parameter.

pH: Mixture is non-soluble (in water).

Kinematic viscosity: <=20,5 mm2/s (40°C) Kinematic viscosity: <7 mm2/s (40°C)

Solubility: Insoluble

Partition coefficient n-octanol/water (log value):

Does not apply to mixtures.

Vapour pressure: There is no information available on this parameter.

Density and/or relative density: 0,905 g/cm3 (20°C)

Relative vapour density:

Particle characteristics:

There is no information available on this parameter.

Does not apply to liquids.

9.2 Other information

Explosives: Product is not explosive.

Oxidising liquids: No

### **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Risk of explosion if heated under confinement.

# 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

Heating, open flame, ignition sources



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# 10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

# 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).

Possibly more information on nea	aitii enecis, set	5 06011011 2.1 (	ciassification).			
Marine Diesel Schutz						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	1487	mg/kg			calculated value
Acute toxicity, by dermal route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by inhalation:	ATE	11,32	mg/l/4h			calculated value,
						Vapours
Acute toxicity, by inhalation:	ATE	3,95	mg/l/4h			calculated value,
						Aerosol, Mist
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin						n.d.a.
sensitisation:						
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity -						n.d.a.
single exposure (STOT-SE):						
Specific target organ toxicity -						n.d.a.
repeated exposure (STOT-RE):						
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral	Analogous
					Toxicity)	conclusion
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute	Analogous
					Dermal Toxicity)	conclusion
Acute toxicity, by inhalation:	LC50	>4951	mg/m3/4h	Rat	OECD 403 (Acute	Analogous
					Inhalation Toxicity)	conclusion,
						Vapours
Skin corrosion/irritation:					OECD 404 (Acute	Not irritant,
					Dermal	Analogous
					Irritation/Corrosion)	conclusion
Serious eye damage/irritation:					OECD 405 (Acute Eye	Not irritant,
					Irritation/Corrosion)	Analogous
						conclusion
Respiratory or skin					OECD 406 (Skin	Not sensitizising,
sensitisation:					Sensitisation)	Analogous
						conclusion
Germ cell mutagenicity:					OECD 473 (In Vitro	Negative,
					Mammalian	Analogous
					Chromosome	conclusion
					Aberration Test)	
Germ cell mutagenicity:					OECD 474 (Mammalian	Negative,
					Erythrocyte	Analogous
					Micronucleus Test)	conclusion
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative
				typhimurium	Reverse Mutation Test)	
Carcinogenicity:					OECD 453 (Combined	Negative,
					Chronic	Analogous
					Toxicity/Carcinogenicity	conclusion
					Studies)	



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Reproductive toxicity:	OECD 414 (Prenatal	Negative,
	Developmental Toxicity	Analogous
	Study)	conclusion
Specific target organ toxicity -	OECD 408 (Repeated	Negative,
repeated exposure (STOT-RE):	Dose 90-Day Oral	Analogous
	Toxicity Study in	conclusion
	Rodents)	
Aspiration hazard:		Yes
Symptoms:		unconsciousness
		, headaches,
		dizziness,
		mucous
		membrane
		irritation

Toxicity / effect	Notes  Experiences on persons., Harmful Experiences on persons., Harmful Mist Not irritant, Repeated exposure may cause skin dryness or cracking. Not irritant No (skin contaction)
Acute toxicity, by inhalation:  Acute toxicity, by inhalation:  Skin corrosion/irritation:  Serious eye damage/irritation:  Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  Germ cell mutagenicity:  Germ cell mutagenicity:  Germ cell mutagenicity:  Germ cell mutagenicity:  Mouse  Germ cell mutagenicity:  Germ cell mutagenicity:  Germ cell mutagenicity:  Germ cell mutagenicity:  Mouse  OECD 476 (In Vitro Mammalian Chromosome Aberration Test)  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  OECD 421 (Reproduction/Develogental Toxicity Screenire)	persons., Harmful Experiences on persons., Harmful Mist Not irritant, Repeated exposure may cause skin dryness or cracking. Not irritant
Acute toxicity, by inhalation:  Skin corrosion/irritation:  Skin corrosion/irritation:  Rabbit  OECD 404 (Acute Dermal Irritation/Corrosion)  Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  Germ cell mutagenicity:  Human being  OECD 473 (In Vitro Mammalian Cell Gene Mutation Test)  Reproductive toxicity:  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  Mammalian  Chromosome  Aberration Test)  OECD 421  (Reproduction/Develogental Toxicity Screenir	Harmful Experiences on persons., Harmful Mist Not irritant, Repeated exposure may cause skin dryness or cracking. Not irritant No (skin contact
Acute toxicity, by inhalation:  Skin corrosion/irritation:  Skin corrosion/irritation:  Rabbit  OECD 404 (Acute Dermal Irritation/Corrosion)  Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  Germ cell mutagenicity:  Human being  OECD 473 (In Vitro Mammalian Cell Gene Mutation Test)  Reproductive toxicity:  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  Mammalian  Chromosome  Aberration Test)  OECD 421  (Reproduction/Develogental Toxicity Screenir	Experiences on persons., Harmful Mist Not irritant, Repeated exposure may cause skin dryness or cracking. Not irritant No (skin contact
Acute toxicity, by inhalation:  Skin corrosion/irritation:  Serious eye damage/irritation:  Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Mouse  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:  Human being  Germ cell dene Mutation Test)  Germ cell mutagenicity:	persons., Harmful Mist Not irritant, Repeated exposure may cause skin dryness or cracking. Not irritant No (skin contact
Skin corrosion/irritation:  Serious eye damage/irritation:  Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  Germ cell mutagenicity:  Human being  Germ cell mutagenicity:  Human being  Germ cell mutagenicity:  Human being  Germ cell mutagenicity:  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  100  mg/kg bw/d  Germ cell mutagenicity Screenir	Harmful Mist Not irritant, Repeated exposure may cause skin dryness or cracking. Not irritant  No (skin contact
Skin corrosion/irritation:  Serious eye damage/irritation:  Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  Germ cell mutagenicity:  Human being  Gerd 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  100  mg/kg bw/d  mg/kg bw/d  mg/kg bw/d  mg/kg chromosome/ch	Mist Not irritant, Repeated exposure may cause skin dryness or cracking. Not irritant
Skin corrosion/irritation:  Serious eye damage/irritation:  Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  Germ cell mutagenicity:  Germ cell mutagenicity:  Human being  Germ cell mutagenicity:  Human being  Germ cell mutagenicity:  Reproductive toxicity:  NOAEL  NOAEL  NOAEL  Rabbit  OECD 405 (Acute Eye Irritation/Corrosion)  OECD 406 (Skin Sensitisation)  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  OECD 476 (In Vitro Mammalian Chromosome Aberration Test)  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  NOAEL  NOAEL  OECD 421 (Reproduction/Develogental Toxicity Screenir	Not irritant, Repeated exposure may cause skin dryness or cracking. Not irritant
Serious eye damage/irritation:  Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  Germ cell mutagenicity:  Human being  Germ cell mutagenicity:  Reproductive toxicity:  NOAEL  NOAEL  Decd 405 (Acute Eye Irritation/Corrosion)  Geuinea pig  OECD 406 (Skin Sensitisation)  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  OECD 421 (Reproduction/Develogental Toxicity Screenir	Repeated exposure may cause skin dryness or cracking. Not irritant
Serious eye damage/irritation:  Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  Germ cell mutagenicity:  Human being  Germ cell mutagenicity:  Human being  Germ cell mutagenicity:  Reproductive toxicity:  NOAEL  NOAEL  100  mg/kg bw/d  Irritation/Corrosion)  GerD 405 (Acute Eyen Irritation/Corrosion)  OECD 405 (Acute Eyen Irritation/Corrosion)  Sensitisation  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  Noammalian Cell Gene Mutation Test)  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  OECD 421 (Reproduction/Develogental Toxicity Screenir	exposure may cause skin dryness or cracking.  Not irritant
Serious eye damage/irritation:  Respiratory or skin Sensitisation:  Germ cell mutagenicity:  Reproductive toxicity:  NOAEL  Respiratory or skin Sensitisation:  Salmonella typhimurium Reverse Mutation Test  OECD 471 (Bacterial Reverse Mutation Test)  Mouse  OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  NOAEL  NOAEL  Reproduction/Develogental Toxicity Screenir	cause skin dryness or cracking. Not irritant
Respiratory or skin Sensitisation:  Germ cell mutagenicity:  Mouse  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  Mouse  OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)  Germ cell mutagenicity:  Human being  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  100  mg/kg bw/d  OECD 421 (Reproduction/Develogental Toxicity Screenir	dryness or cracking.  Not irritant  No (skin contact
Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  Mouse  OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)  Germ cell mutagenicity:  Human being  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  Mutation Test)  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  OECD 421 (Reproduction/Developental Toxicity Screening)	cracking. Not irritant No (skin contact
Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  Mouse  OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)  Germ cell mutagenicity:  Human being  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  Mutation Test)  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  OECD 421 (Reproduction/Developental Toxicity Screening)	Not irritant  No (skin contac
Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  Mouse  OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)  Germ cell mutagenicity:  Human being  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  Mutation Test)  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  OECD 421 (Reproduction/Developental Toxicity Screening)	No (skin contac
Respiratory or skin sensitisation:  Germ cell mutagenicity:  Mouse  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  Mouse  OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  Mutagenicity:  Mouse  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  OECD 421 (Reproduction/Developental Toxicity Screening)	,
Sensitisation:  Germ cell mutagenicity:  Germ cell mutagenicity:  Germ cell mutagenicity:  Germ cell mutagenicity:  Mouse  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  Mouse  OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)  Germ cell mutagenicity:  Human being  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  100  mg/kg bw/d  OECD 421 (Reproduction/Developental Toxicity Screenir	,
Germ cell mutagenicity:  Germ cell mutagenicity:  Germ cell mutagenicity:  Mouse  OECD 471 (Bacterial typhimurium Reverse Mutation Test)  Mouse  OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)  Germ cell mutagenicity:  Human being  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  Meproduction/Develogental Toxicity Screenir	Mogativo
typhimurium Reverse Mutation Test  Germ cell mutagenicity:  Mouse  OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)  Germ cell mutagenicity:  Human being  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL  NOAEL  NOAEL  NOAEL  NOAEL  Mouse  OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  OECD 421 (Reproduction/Developental Toxicity Screening)	
Germ cell mutagenicity:    Mouse   OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	
Mammalian Cell Gene Mutation Test)   Germ cell mutagenicity:   Human being   OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	
Germ cell mutagenicity:  Human being OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL 100 mg/kg OECD 421 (Reproduction/Developental Toxicity Screenir	Negative
Germ cell mutagenicity:  Human being OECD 473 (In Vitro Mammalian Chromosome Aberration Test)  Reproductive toxicity:  NOAEL 100 mg/kg bw/d OECD 421 (Reproduction/Develop ental Toxicity Screenir	
Reproductive toxicity:  NOAEL 100 mg/kg OECD 421 (Reproduction/Developental Toxicity Screenir	
Reproductive toxicity:  NOAEL 100 mg/kg OECD 421 (Reproduction/Developental Toxicity Screening to the content of the content o	Negative
Reproductive toxicity:  NOAEL 100 mg/kg OECD 421 bw/d (Reproduction/Developental Toxicity Screening)	
Reproductive toxicity:  NOAEL 100 mg/kg OECD 421 (Reproduction/Developental Toxicity Screening Parks)	
bw/d (Reproduction/Develor ental Toxicity Screening	
ental Toxicity Screening	Negative
Tooth	g
Reproductive toxicity Rat OECD 414 (Prenatal	Analogous
(Developmental toxicity): Developmental Toxicit	/ conclusion
Study)	
Specific target organ toxicity - NOAEL 500 mg/kg Rabbit	Negativederma
repeated exposure (STOT-RE), bw/d	
dermal:	
Symptoms:	drying of the
	skin., may caus
	headaches and
	vertigo., nausea
	drop in blood
	pressure,
	1 1
	diarrhoea,
Specific target organ toxicity - NOAEL 863 mg/m3 Rat OECD 413 (Subchroni	diarrhoea, unconsciousnes
repeated exposure (STOT-RE), Inhalation Toxicity - 90	unconsciousnes
inhalat.: Day Study)	unconsciousnes c Vapours,



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Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	890	mg/kg			
Acute toxicity, by dermal route:	LD50	>5000	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 491 (Short-time Exposure Chemicals Causing Eye Dam., Chem. Not Requir. Eye Dam. or Irrit.)	Eye Dam. 1
Symptoms:						acidosis, respiratory distress, annoyance, blisters, heart/circulator disorders, coughing, cramps, stomach pain, intoxication, mucous membrane irritation, pain i chest, sweats, dizziness, visus disturbances, nausea and vomiting.

Ethanediol						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	1600	mg/kg	Human being		
Acute toxicity, by dermal route:	LD50	9530	mg/kg	Rabbit		
Acute toxicity, by dermal route:	LD50	>3500	mg/kg	Mouse		
Acute toxicity, by inhalation:	LC50	>2,5	mg/l/6h	Rat		
Skin corrosion/irritation:				Rabbit		Not irritant
Serious eye damage/irritation:				Rabbit		Not irritant
Respiratory or skin sensitisation:				Human being	(Patch-Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Rat	in vivo	Negative
Carcinogenicity:	NOAEL	1500	mg/kg	Mouse		Male oral, 2 a
Reproductive toxicity:	NOAEL	1000	mg/kg bw/d	Rat		
Symptoms:						ataxia, breathing difficulties, unconsciousness , cramps, fatigue

1,2-benzisothiazol-3(2H)-one						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	490	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by oral route:	LD50	670	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	Male
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	0,4	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol



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Skin corrosion/irritation:				Rabbit	U.S. EPA 81-5	Irritant
Serious eye damage/irritation:				Rabbit	OECD 437 (Bovine Corneal Opacity +	Eye Dam. 1
					Permeability Test for	
					Identif. Ocular Corros. +	
					Severe Irritants)	
Respiratory or skin				Guinea pig	OECD 406 (Skin	Skin Sens. 1
sensitisation:					Sensitisation)	
Respiratory or skin				Mouse	OECD 429 (Skin	Yes (skin
sensitisation:					Sensitisation - Local	contact)
					Lymph Node Assay)	
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative
				typhimurium	Reverse Mutation Test)	
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian	Negative
					Erythrocyte	
					Micronucleus Test)	
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro	Negative
					Mammalian Cell Gene	
					Mutation Test)	
Specific target organ toxicity -	NOAEL	150	mg/kg/d	Rat	OECD 407 (Repeated	
repeated exposure (STOT-RE):					Dose 28-Day Oral	
					Toxicity Study in	
					Rodents)	

2-Ethylhexanol	1					
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	2047	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>3000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	2,7	mg/l/4h			Aerosol
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
Respiratory or skin sensitisation:				Guinea pig		No (skin contact)literature
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	NegativeChinese hamster
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Reproductive toxicity:	NOAEL	3000	ppm	Rat	OECD 416 (Two- generation Reproduction Toxicity Study)	Negative
Reproductive toxicity (Developmental toxicity):				Mouse	OECD 414 (Prenatal Developmental Toxicity Study)	Negativeoral
Carcinogenicity:	NOAEL	750	mg/kg bw/d	Mouse	OECD 451 (Carcinogenicity Studies)	Negative
Specific target organ toxicity - single exposure (STOT-SE):						Irritation of the respiratory tract, STOT SE 3, H335
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	125	mg/kg bw/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	



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Specific target organ toxicity - repeated exposure (STOT-RE),	NOAEL	200	mg/kg bw/d	Mouse		unconsciousness, drop in blood pressure, vomiting, headaches, cramps, drowsiness, mucous membrane irritation, dizziness, nausea
oral: Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEC	0,6384	mg/l	Rat	OECD 413 (Subchronic Inhalation Toxicity - 90- Day Study)	Vapours

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 401 (Acute Oral	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	Toxicity) OECD 402 (Acute	
					Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Skin Irrit. 2
					Dermal	
					Irritation/Corrosion)	
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Not irritant
					Irritation/Corrosion)	
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin
sensitisation:					Sensitisation)	contact),
						Analogous
						conclusion
Germ cell mutagenicity:				Rat	OECD 475 (Mammalian	Negative
					Bone Marrow	
					Chromosome	
					Aberration Test)	
Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro	Negative
					Mammalian	
					Chromosome	
					Aberration Test)	
Germ cell mutagenicity:				Mammalian	OECD 476 (In Vitro	Negative
					Mammalian Cell Gene	
					Mutation Test)	
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian	Negative
					Erythrocyte	
					Micronucleus Test)	
Aspiration hazard:						No

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	Analogous
					Toxicity)	conclusion
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute	Analogous
					Dermal Toxicity)	conclusion
Acute toxicity, by inhalation:	LC50	>5,53	mg/l/4h	Rat	OECD 403 (Acute	Aerosol,
					Inhalation Toxicity)	Analogous
						conclusion
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant,
					Dermal	Analogous
					Irritation/Corrosion)	conclusion



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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)	NegativeChinese 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 conclusion78 weeks, dermal
Reproductive toxicity:				Rat	OECD 421 (Reproduction/Developm ental Toxicity Screening Test)	Negative, Analogous conclusionoral
Reproductive toxicity (Developmental toxicity):				Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusionderma
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

# 11.2. Information on other hazards

Marine Diesel Schutz						
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.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes



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Other information:			Repeated
			exposure may
			cause skin
			dryness or
			cracking.

# **SECTION 12: Ecological information**

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

Marine Diesel Schutz					T		1
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							n.d.a.
degradability:							
12.3. Bioaccumulative							n.d.a.
potential:							
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT							n.d.a.
and vPvB assessment							
12.6. Endocrine							Does not apply
disrupting properties:							to mixtures.
12.7. Other adverse							No information
effects:							available on
							other adverse
							effects on the
							environment.
Other information:							DOC-elimination
							degree(complex
							ng organic
							substance)>=
							80%/28d: No

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.5. Results of PBT							No PBT
and vPvB assessment							substance, No
							vPvB substance
Water solubility:							Product floats o
•							the water
							surface.
12.1. Toxicity to fish:	LL50	96h	>1000	mg/l	Oncorhynchus	OECD 203 (Fish,	
•					mykiss	Acute Toxicity	
						Test)	
12.1. Toxicity to fish:	NOELR	28d	0,101	mg/l	Oncorhynchus	,	
· ·					mykiss		
12.1. Toxicity to daphnia:	EL50	48h	>1000	mg/l	Daphnia magna	OECD 202	
						(Daphnia sp.	
						Acute	
						Immobilisation	
						Test)	
12.1. Toxicity to daphnia:	NOELR	21d	0,176	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EL50	72h	>1000	mg/l	Pseudokirchneriell	OECD 201 (Alga,	
					a subcapitata	Growth Inhibition	
						Test)	
12.2. Persistence and		28d	80	%	activated sludge	OECD 301 F	Readily
degradability:						(Ready	biodegradable
						Biodegradability -	
						Manometric	
						Respirometry Test)	
Other organisms:	EL50	48h	>1000	mg/l	Tetrahymen		
					pyriformis		



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2-ethylhexyl nitrate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.3. Bioaccumulative potential:	BCF		1332				High
12.1. Toxicity to fish:	LC50	96h	2	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	>12,6	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	3,22	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to fish:	NOEC/NOEL	96h	1,42	mg/l		,	
12.2. Persistence and degradability:		28d	0	%		OECD 310 (Ready Biodegradability - CO2 in sealed vessels (Headspace Test))	Not readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		3,74- 5,24				High
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.4. Mobility in soil:	Log Koc		3,75			OECD 121 (Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using HPLC)	
Toxicity to bacteria:	EC50	3h	>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other information:	AOX		0	%		,,	No
Water solubility:							Slight

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.3. Bioaccumulative potential:	Log Pow		2,5				
12.4. Mobility in soil:	Log Koc		2,346				
12.1. Toxicity to fish:	LC50	96h	19,8	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	28	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Analogous conclusion



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12.1. Toxicity to algae:	NOEC/NOEL	72h	0,79	mg/l	Desmodesmus	Regulation (EC)	
					subspicatus	440/2008 C.3	
						(FRESHWATER	
						ALGAE AND	
						CYANOBACTERI	
						A, GROWTH	
						INHIBITION TEST)	
12.1. Toxicity to daphnia:	EC50	48h	870	mg/l	Daphnia magna	OECD 202	Analogous
						(Daphnia sp.	conclusion
						Acute	
						Immobilisation	
						Test)	
12.2. Persistence and	DOC	28d	98,4	%			Readily
degradability:							biodegradable
12.1. Toxicity to algae:	EC50	72h	27	mg/l	Desmodesmus	OECD 201 (Alga,	
					subspicatus	Growth Inhibition	
						Test)	
12.5. Results of PBT						·	No PBT
and vPvB assessment							substance, No
							vPvB substance
Toxicity to bacteria:	EC50	16h	380	mg/l	Pseudomonas		
-				-	putida		

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>10000	mg/l	Pimephales	IUCLID Chem.	
					promelas	Data Sheet (ESIS)	
12.1. Toxicity to fish:	NOEC/NOEL	7d	15380	mg/l	Pimephales	U.S. EPA	
					promelas	ECOTOX	
						Database	
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		8590	mg/l	Daphnia magna	U.S. EPA	
						ECOTOX	
						Database	
12.1. Toxicity to daphnia:	NOEC/NOEL	7d	8590	mg/l	Ceriodaphnia	U.S. EPA	
					spec.	ECOTOX	
						Database	
12.1. Toxicity to algae:	EC50	96h	6500-	mg/l	Pseudokirchneriell	U.S. EPA-600/9-	
			13000		a subcapitata	78-018	
12.2. Persistence and		28d	56	%		OECD 301 C	
degradability:						(Ready	
						Biodegradability -	
						Modified MITI	
						Test (I))	
12.2. Persistence and		10d	90-100	%		OECD 301 A	Readily
degradability:						(Ready	biodegradable
						Biodegradability -	
						DOC Die-Away	
						Test)	
12.3. Bioaccumulative	Log Pow		-1,36				Not to be
ootential:							expected
12.5. Results of PBT							No PBT
and vPvB assessment							substance, No
							vPvB substanc



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Toxicity to bacteria:	EC20	30min	>1995	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	Analogous conclusion
Toxicity to bacteria:	EC50	16h	>10000	mg/l	Pseudomonas putida	IUCLID Chem. Data Sheet (ESIS)	
Other information:	BOD5		0,78	g/g			IUCLID

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.2. Persistence and degradability:	DT50		0,04	d	o. gamom	OECD 307 (Aerobic and Anaerobic Transformation in Soil)	Readily biodegradable
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,11	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to fish:	LC50	96h	1,6-2,15	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	30d	0,21	mg/l	Oncorhynchus mykiss	OECD 215 (Fish, Juvenile Growth Test)	
12.1. Toxicity to daphnia:	EC50	48h	2,9	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	1,2	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	0,11	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:			90	%		OECD 302 B (Inherent Biodegradability - Zahn- Wellens/EMPA Test)	
12.2. Persistence and degradability:	DOC	21d	80	%	activated sludge	OECD 303 A (Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		6,95		Lepomis macrochirus	OECD 305 (Bioconcentration - Flow-Through Fish Test)	
12.3. Bioaccumulative potential:	Log Kow		0,7			OECD 117 (Partition Coefficient (n- octanol/water) - HPLC method)	
Toxicity to bacteria:	EC50	3h	13	mg/l	activated sludge	ISO 10712	



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Toxicity to bacteria:	EC50	3h	23	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and
						Ammonium Oxidation))

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	17,1	mg/l	Leuciscus idus	Regulation (EC) 440/2008 C.1 (ACUTE TOXICITY FOR FISH)	
12.1. Toxicity to fish:	LC50	96h	28,2	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	39	mg/l	Daphnia magna	Regulation (EC) 440/2008 C.2 (DAPHNIA SP. ACUTE IMMOBILISATION TEST)	
12.1. Toxicity to algae:	EC50	72h	16,6	mg/l	Desmodesmus subspicatus	Regulation (EC) 440/2008 C.3 (FRESHWATER ALGAE AND CYANOBACTERI A, GROWTH INHIBITION TEST)	
12.2. Persistence and degradability:	COD	14d	100	%	activated sludge	OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		2,9			OECD 117 (Partition Coefficient (n- octanol/water) - HPLC method)	Low
12.3. Bioaccumulative potential:	BCF		25,33				calculated value
12.4. Mobility in soil:			1,42				Not to be expected
12.4. Mobility in soil:	Koc		800				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	24h	>300	mg/l	activated sludge		
Toxicity to bacteria:	EC50	3h	540	mg/l	Pseudomonas putida		
Toxicity to bacteria:	EC50	12h	> 100	mg/l	activated sludge		

Alcohols, C16-18 and C1	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)							
12.2. Persistence and		28d	>60	%	activated sludge	OECD 301 D	Readily						
degradability:						(Ready	biodegradable						
						Biodegradability -	-						
						Closed Bottle Test)							



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12.1. Toxicity to algae:	EL50	72h	>10	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)
12.1. Toxicity to daphnia:	EL50	48h	51	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)

Toxicity / effect	Endpoint	Time	nic 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	
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	Pseudokirchneriell a 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

# **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)

13 07 03 other fuels (including mixtures)

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.

# **SECTION 14: Transport information**



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#### **General statements**

14.1. UN number or ID number: 3082

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

14.2. UN proper shipping name:

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-ETHYLHEXYL NITRATE,1,2-

BENZISOTHIAZOL-3(2H)-ONE)

14.3. Transport hazard class(es):914.4. Packing group:IIIClassification code:M6LQ:5 L

14.5. Environmental hazards: environmentally hazardous

Tunnel restriction code:

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

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-ETHYLHEXYL NITRATE,1,2-BENZISOTHIAZOL-3(2H)-

ONE)

14.3. Transport hazard class(es):914.4. Packing group:IIIEmS:F-A, S-FMarine Pollutant:Yes

14.5. Environmental hazards: environmentally hazardous

#### Transport by air (IATA)

14.2. UN proper shipping name:

Environmentally hazardous substance, liquid, n.o.s. (2-ETHYLHEXYL NITRATE,1,2-BENZISOTHIAZOL-3(2H)-ONE)

14.3. Transport hazard class(es):

14.4. Packing group:

14.5. Environmental hazards: environmentally hazardous

#### 14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained. All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

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

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

# **SECTION 15: Regulatory information**

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

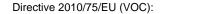
#### Observe restrictions

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)! Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)! Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

according to storage, nandling etc.	) <u>:</u>		
Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of	Qualifying quantity (tonnes) of
		dangerous substances as	dangerous substances as
		referred to in Article 3(10) for the	referred to in Article 3(10) for the
		application of - Lower-tier	application of - Upper-tier
		requirements	requirements
E2		200	500

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.











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Observe Regulation (EU) No 528/2012 concerning the placing of biocidal products on the market.

Additional data acc. to Art. 69 (2), Regulation (EU) No 528/2012 (Biocide products):

The identity of every active substance and its concentration in metric units:

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

3,2 g/100 g The uses:

Preservation

Observe incident regulations.

# 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

#### **SECTION 16: Other information**

Revised sections:

3

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

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

Classification in accordance with regulation	Evaluation method used
(EC) No. 1272/2008 (CLP)	
Acute Tox. 4, H332	Classification according to calculation procedure.
Acute Tox. 4, H302	Classification according to calculation procedure.
Eye Dam. 1, H318	Classification according to calculation procedure.
Skin Sens. 1, H317	Classification according to calculation procedure.
Asp. Tox. 1, H304	Classification according to calculation procedure.
Repr. 2, H361d	Classification according to calculation procedure.
Aquatic Chronic 2, H411	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).

H330 Fatal if inhaled.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

H317 May cause an allergic skin reaction.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH044 Risk of explosion if heated under confinement.

 $\begin{array}{lll} \mbox{Acute Tox.} & -- \mbox{Acute toxicity - inhalation} \\ \mbox{Acute Tox.} & -- \mbox{Acute toxicity - oral} \end{array}$ 

Eye Dam. — Serious eye damage

Skin Sens. — Skin sensitization Asp. Tox. — Aspiration hazard

Repr. — Reproductive toxicity



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Aguatic Chronic — Hazardous to the aguatic environment - chronic

Acute Tox. — Acute toxicity - dermal

STOT RE — Specific target organ toxicity - repeated exposure

Skin Irrit. — Skin irritation

Aquatic Acute — Hazardous to the aquatic environment - acute

Eye Irrit. — Eye irritation

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.

ECHÁ 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

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, 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



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

Revision date / version: 02.09.2022 / 0011

Replacing version dated / version: 11.11.2021 / 0010

Valid from: 02.09.2022 PDF print date: 27.09.2022 Marine Diesel Schutz

Koc Adsorption coefficient of organic carbon in the soil

octanol-water partition coefficient Kow

**IARC** International Agency for Research on Cancer International Air Transport Association IATA IBC (Code) International Bulk Chemical (Code)

International Maritime Code for Dangerous Goods IMDG-code

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

**Limited Quantities** LQ

**MARPOL** International Convention for the Prevention of Marine Pollution from Ships

not applicable n.a. n.av. not available not checked n.c. n.d.a. no data available

NIOSH National Institute for Occupational Safety and Health (USA)

No-longer-Polymer NI P

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

PΕ Polyethylene

PNEC Predicted No Effect Concentration

ppm parts per million

**PVC** Polyvinylchloride

REACHRegistration, 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.

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

wet weight wwt

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.

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