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

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

1.1 Product identifier

Zentralhydraulik-Oel 2500

1.2 Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses of the substance or mixture:
Hydraulic oil
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 category
Acute Tox.	4
Asp. Tox.	1

Hazard statement H332-Harmful if inhaled. H304-May be fatal if swallowed and enters airways.

2.2 Label elements Labeling according to Regulation (EC) 1272/2008 (CLP)





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Danger

H332-Harmful if inhaled. H304-May be fatal if swallowed and enters airways.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children. P261-Avoid breathing vapours or spray. P271-Use only outdoors or in a well-ventilated area. P301+P310-IF SWALLOWED: Immediately call a POISON CENTER / doctor. P331-Do NOT induce vomiting. P405-Store locked up. P501-Dispose of contents / container to an approved waste disposal facility.

1-Decene, dimer, hydrogenated Distillates (petroleum), hydrotreated light paraffinic Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based

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

3.2 MIXtures	
1-Decene, dimer, hydrogenated	
Registration number (REACH)	01-2119493069-28-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	500-228-5
CAS	68649-11-6
content %	50-<75
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H332
	Asp. Tox. 1, H304
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	
Registration number (REACH)	01-2119474889-13-XXXX
Index	649-483-00-5
EINECS, ELINCS, NLP, REACH-IT List-No.	276-738-4
CAS	72623-87-1
content %	10-<25
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Asp. Tox. 1, H304
Short-, medium- and long-chain alkyl methacrylates copolymer (ACC-	
ZX665225-90)	
Registration number (REACH)	
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	
CAS	
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Eye Irrit. 2, H319
Specific Concentration Limits and ATE	Eye Irrit. 2, H319: >=75 %
Distillates (petroleum), hydrotreated light paraffinic	
Registration number (REACH)	01-2119487077-29-XXXX
Index	649-468-00-3
EINECS, ELINCS, NLP, REACH-IT List-No.	265-158-7



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Classification according to Regulation (EC) 1272/2008 (CLP), M-factors

CAS	64742-55-8
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Asp. Tox. 1, H304
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	
Registration number (REACH)	01-2119510877-33-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	620-540-6
CAS	1218787-32-6

0,01-<0,25

Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318

Aquatic Acute 1, H400 (M=10)

	Aquatic Chronic 1, H410 (M=1)
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	
Registration number (REACH)	01-2119777867-13-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	202-414-9
CAS	95-38-5
content %	0,001-<0,1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302
	Skin Corr. 1C, H314
	Eye Dam. 1, H318
	STOT RE 2, H373 (gastrointestinal tract, thymus) (oral)
	Aquatic Acute 1, H400 (M=10)
	Aquatic Chronic 1, H410 (M=1)

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, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

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

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting. 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.

The following may occur: Irritation of the eyes With long-term contact: Drying of the skin. Dermatitis (skin inflammation)



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Ingestion: Gastrointestinal disturbances Nausea Vomiting oedema of the lungs Chemical pneumonitis (condition similar to pneumonia) **4.3 Indication of any immediate medical attention and special treatment needed**

Symptomatic treatment. 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

CO2 Foam Dry extinguisher

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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 sulphur 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.

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 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

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

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. Do not wash away with water or watery cleaning agents.

6.4 Reference to other sections

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



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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 aerosol formation. Avoid inhalation of the vapours. Avoid contact with eyes. Avoid long lasting or intensive contact with skin. Do not carry cleaning cloths soaked in product in trouser pockets. 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. Under all circumstances prevent penetration into the soil. Store at room temperature.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based						
Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
	Environmental					
	compartment					
	Human - oral		PNEC	9,33	mg/kg feed	
Consumer	Human - inhalation	Long term, local effects	DNEL	1,2	mg/m3	24h
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,4	mg/m3	8h

Distillates (petroleum), hyd	drotreated light 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	1,19	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,74	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,6	mg/m3	



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Workers / employees	Human - dermal	Long term, systemic	DNEL	0,97	mg/kg	
		effects			bw/day	
Workers / employees	Human - inhalation	Long term, systemic	DNEL	2,7	mg/m3	
		effects				

2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,21	µg/l	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,21	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,21	mg/kg bw/d	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,3	mg/kg bw/d	

Area of application	Exposure route / Environmental	Effect on health	Descriptor	Value	Unit	Note
	compartment					
	Environment - freshwater		PNEC	0	mg/l	
	Environment - marine		PNEC	0	mg/l	
	Environment - sewage treatment plant		PNEC	0,27	mg/l	
	Environment - sediment, freshwater		PNEC	0,376	mg/kg	
	Environment - sediment, marine		PNEC	0,038	mg/kg	
	Environment - soil		PNEC	0,075	mg/kg	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	2	mg/kg	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	14	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,46	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,06	mg/kg body	
					weight/day	

Distillates (petroleum), hydrotreated 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)					

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 urine in value in relation to a reference period of 1 minute (2017/164/EU). HMGV = Biological monitoring guidance value EH40. BGW = "Biologicsher"

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).



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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: With danger of contact with eyes. 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). 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 air supply is not sufficient, wear protective breathing apparatus. 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



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Colour:

Odour: Melting point/freezing point: Boiling point or initial boiling point and boiling range: Flammability: Lower explosion limit: Upper explosion limit: Flash point: Auto-ignition temperature: Decomposition temperature: pH: Kinematic viscosity: Kinematic viscosity: Solubility: Partition coefficient n-octanol/water (log value): Vapour pressure: Density and/or relative density: Relative vapour density: Particle characteristics:

9.2 Other information

No information available at present.

Orange Characteristic - 51 °C Not determined There is no information available on this parameter. There is no information available on this parameter. There is no information available on this parameter. 150 °C There is no information available on this parameter. There is no information available on this parameter. n.d.a. <=20,5 mm2/s (40°C) 19,5 mm2/s (40°C) Insoluble Does not apply to mixtures. There is no information available on this parameter. 0,825 g/cm3 There is no information available on this parameter. Does not apply to liquids.

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
Strong heat
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). Zentralhydraulik-Oel 2500 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. ATE Acute toxicity, by inhalation: 16.347 mg/l/4h Vapours. calculated value Acute toxicity, by inhalation: ATE 2,229 mg/l/4h Aerosol. calculated value 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):



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Aspiration hazard:			n.d.a.
Symptoms:			n.d.a.

1-Decene, dimer, hydrogenated	d	1-Decene, dimer, hydrogenated									
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes					
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral						
					Toxicity)						
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Not irritant					
					Irritation/Corrosion)						
Respiratory or skin					OECD 406 (Skin	Not sensitizising					
sensitisation:					Sensitisation)	(Analogous					
						conclusion)					

Lubricating oils (petroleum), C Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral	
					Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute	
			5.5		Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>5,53	mg/l/4h	Rat	OECD 403 (Acute	
57 5			0		Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant,
					Dermal	Repeated
					Irritation/Corrosion)	exposure may
						cause skin
						dryness or
						cracking.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Not irritant
					Irritation/Corrosion)	
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin contact
sensitisation:					Sensitisation)	
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative,
				typhimurium	Reverse Mutation Test)	Analogous
						conclusion
Germ cell mutagenicity:					OECD 473 (In Vitro	Negative,
					Mammalian	Analogous
					Chromosome	conclusion
				Maria	Aberration Test)	Chinese hamste
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro	Negative,
					Mammalian Cell Gene	Analogous
Germ cell mutagenicity:				Mouse	Mutation Test) OECD 474 (Mammalian	conclusion Negative,
Germ cell mutagenicity.				wouse	Erythrocyte	Analogous
					Micronucleus Test)	conclusion
Carcinogenicity:					OECD 453 (Combined	Negative
Careinogenieity.					Chronic	Negative
					Toxicity/Carcinogenicity	
					Studies)	
Carcinogenicity:				Mouse	OECD 451	Negative,
					(Carcinogenicity Studies)	Analogous
					, , , , ,	conclusion
Reproductive toxicity:					OECD 414 (Prenatal	Negative
					Developmental Toxicity	•
					Study)	
Reproductive toxicity:					OECD 421	Negative
					(Reproduction/Developm	
					ental Toxicity Screening	
				-	Test)	
Reproductive toxicity:				Rat	OECD 421	Negative,
					(Reproduction/Developm	Analogous
					ental Toxicity Screening	conclusion
					Test)	



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Specific target organ toxicity - epeated exposure (STOT-RE):					OECD 453 (Combined Chronic	Negative
					Toxicity/Carcinogenicity Studies)	
Specific target organ toxicity - epeated exposure (STOT-RE):					OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 410 (Repeated Dose Dermal Toxicity - 90-Day)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 411 (Subchronic Dermal Toxicity - 90-day Study)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 412 (Subacute Inhalation Toxicity - 28- Day Study)	Negative
Aspiration hazard:						Asp. Tox. 1
Short-, medium- and long-chai	n alkyl meth			665225-90)		
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
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant, Analogous conclusion
Serious eye damage/irritation:		>=75	%	Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2, Classification based on toxicological analyses.
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact), Analogous conclusion
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Distillates (petroleum), hydrotr	eated light (paraffinic				
Toxicity / effect	Endpoint		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	>5000	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:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion



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Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro	Negative,
					Mammalian	Analogous
					Chromosome	conclusionChines
					Aberration Test)	e hamster
Reproductive toxicity				Rat	OECD 414 (Prenatal	Negative,
(Developmental toxicity):					Developmental Toxicity	Analogous
					Study)	conclusion
Carcinogenicity:				Mouse	OECD 451	Negative,
					(Carcinogenicity Studies)	Analogous
						conclusiondermal
Reproductive toxicity:	NOAEL	1000	mg/kg	Rat	OECD 421	Analogous
			bw/d		(Reproduction/Developm	conclusiondermal
					ental Toxicity Screening	
					Test)	
Aspiration hazard:						Yes
Specific target organ toxicity -	NOAEL	125	mg/kg	Rat	OECD 408 (Repeated	Analogous
repeated exposure (STOT-RE),			bw/d		Dose 90-Day Oral	conclusion
oral:					Toxicity Study in	
					Rodents)	
Specific target organ toxicity -	NOAEL	<30	mg/kg	Rat	OECD 411 (Subchronic	Analogous
repeated exposure (STOT-RE),			bw/d		Dermal Toxicity - 90-day	conclusion
dermal:					Study)	
Specific target organ toxicity -	NOAEL	1000	mg/kg	Rabbit	OECD 410 (Repeated	Analogous
repeated exposure (STOT-RE),					Dose Dermal Toxicity -	conclusion
dermal:					90-Day)	
Specific target organ toxicity -	NOAEL	0,05	mg/l	Rat	OECD 412 (Subacute	Aerosol,
repeated exposure (STOT-RE),					Inhalation Toxicity - 28-	Analogous
inhalat.:					Day Study)	conclusion
Specific target organ toxicity -	NOAEL	0,15	mg/l	Rat		Aerosol,
repeated exposure (STOT-RE),						Analogous
inhalat.:						conclusion13
						weeks

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	1500	mg/kg	Rat	OECD 425 (Acute Oral	
					Toxicity - Up-and-Down	
					Procedure)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Skin Corr. 1C
					Dermal	
					Irritation/Corrosion)	
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin
sensitisation:					Sensitisation)	contact),
						Analogous
						conclusion
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro	Negative,
					Mammalian Cell Gene	Analogous
					Mutation Test)	conclusion
Germ cell mutagenicity:				Human being	OECD 473 (In Vitro	Negative,
					Mammalian	Analogous
					Chromosome	conclusion
					Aberration Test)	

2-(2-heptadec-8-enyl-2-imidazo	lin-1-yl)ethan	ol				
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	1265	mg/kg	Rat	OECD 401 (Acute Oral	Analogous
					Toxicity)	conclusion
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Corrosive,
					Dermal	Analogous
					Irritation/Corrosion)	conclusion
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Corrosive,
					Irritation/Corrosion)	Analogous
						conclusion



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Respiratory or skin	Guinea pig	OECD 406 (Skin	No (skin
sensitisation:		Sensitisation)	contact),
			Analogous
			conclusion
Germ cell mutagenicity:	Salmonella	OECD 471 (Bacterial	Negative,
	typhimurium	Reverse Mutation Test)	Analogous
			conclusion
Germ cell mutagenicity:	Mammalian	OECD 473 (In Vitro	Negative,
		Mammalian	Analogous
		Chromosome	conclusion
		Aberration Test)	
Specific target organ toxicity -	Rat	OECD 422 (Combined	Target organ(s):
repeated exposure (STOT-RE),		Repeated Dose Tox.	gastrointestinal
oral:		Study with the	tract, Target
		Reproduction/Developm.	organ(s): thymus
		Tox. Screening Test)	-

11.2. Information on other hazards

Zentralhydraulik-Oel 2500								
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

Zentralhydraulik-Oel 250)0						
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							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(complexi
							ng organic
							substance)>=
							80%/28d: No
Other information:	AOX			%			According to the
							recipe, contains
							no AOX.
1-Decene, dimer, hydrog							
1-Uncono dimor hydrod	ionatori						



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12.1. Toxicity to fish:	LL50	96h	>1000	mg/l		
12.1. Toxicity to daphnia:	EL50	48h	>1000	mg/l		
12.2. Persistence and		28d	49,2-	%		
degradability:			53,5			
12.2. Persistence and						Not readily
degradability:						biodegradable
12.4. Mobility in soil:	Log Koc		>6,2			

Foxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
oxicity to bacteria:	NOEC/NOEL	10min	> 1,93	mg/l	activated sludge		DIN 38412
12.1. Toxicity to fish:	NOEC/NOEL	96h	>=100	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	LL50	96h	> 100	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EL50	48h	>10000	mg/l	Daphnia magna	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)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	>=100	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EL50	48h	>100	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:						OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Not readily biodegradable
12.2. Persistence and degradability:		28d	46	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
12.3. Bioaccumulative potential:	Log Kow		>6				A notable biological accumulation potential has to be expected (LogPow > 3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substanc

	- · · /			er (ACC-ZX			
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LL50	96h	>100	mg/l	Brachydanio rerio		
12.1. Toxicity to daphnia:	EL50	48h	>100	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	EL10	21d	>100	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EL50	72h	>100	mg/l	Desmodesmus		
				_	subspicatus		
12.1. Toxicity to algae:	EL10	72h	>100	mg/l	Desmodesmus		
				_	subspicatus		
					* *		•
Distillates (petroleum), h	ydrotreated lig	nt paraffini	c				
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes



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12.1. Toxicity to fish:	NOEC/NOEL	28d	>1000	mg/l	Oncorhynchus mykiss	QSAR	
12.1. Toxicity to fish:	LL50	96h	>100	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	Analogous conclusion
12.1. Toxicity to fish:	NOEC/NOEL	14d	1000	mg/l	Oncorhynchus mykiss	QSÁR	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	10	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	Analogous conclusion
12.3. Bioaccumulative potential:							Not to be expected
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 algae:	NOEC/NOEL	72h	>=100	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion
12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion
12.2. Persistence and degradability:		28d	31	%	activated sludge	OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable, Analogous conclusion
12.3. Bioaccumulative potential:	Log Pow		>6				@20°C
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substanc

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.2. Persistence and degradability:		28d	75	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable, Analogous conclusion
12.3. Bioaccumulative potential:	Log Pow		3,6				Low
12.1. Toxicity to fish:	LC50	96h	0,1	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	Analogous conclusion
12.1. Toxicity to daphnia:	EC50	48h	0,043	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Analogous conclusion
12.1. Toxicity to daphnia:	EC10	21d	0,0107	mg/l	Daphnia magna	OEĆD 211 (Daphnia magna Reproduction Test)	Analogous conclusion
12.1. Toxicity to algae:	EC50	72h	0,0538	mg/l	Pseudokirchneriell a subcapitata	IUCLID Chem. Data Sheet (ESIS)	Analogous conclusion
12.2. Persistence and degradability:		28d	63	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable, Analogous conclusion
12.3. Bioaccumulative potential:	BCF		110,2				calculated



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Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to algae:	EC10	72h	0,014	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to fish:	LC50	96h	0,3	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	0,163	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Analogous conclusion
12.1. Toxicity to algae:	EC50	72h	0,03	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion
12.2. Persistence and degradability:		28d	1	%	activated sludge	OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Not biodegradable

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of. 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 01 10 mineral based non-chlorinated hydraulic oils

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. dispose at suitable refuse site.

E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

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

SECTION 14: Transport information

General statements

14.1. UN number or ID number: Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

Not applicable



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14.3. Transport hazard class(es): 14.4. Packing group: Classification code: IQ: 14.5. Environmental hazards:

Tunnel restriction code: Transport by sea (IMDG-code)

14.2. UN proper shipping name: 14.3. Transport hazard class(es): 14.4. Packing group: Marine Pollutant: 14.5. Environmental hazards:

Transport by air (IATA)

14.2. UN proper shipping name: 14.3. Transport hazard class(es): 14.4. Packing group: 14.5. Environmental hazards:

14.6. Special precautions for user

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

14.7. Maritime transport in bulk according to IMO instruments Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

Observe restrictions: Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC):

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:

These details refer to the product as it is delivered. Employee instruction/training in handling hazardous materials is required.

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

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Acute Tox. 4, H332	Classification according to calculation procedure.
Asp. Tox. 1, H304	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).

H314 Causes severe skin burns and eye damage.

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

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H318 Causes serious eye damage. H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

n.a. Not applicable Not applicable Not applicable Not applicable

n.a. Not applicable Not applicable

Not applicable

n.a

n.a. Not applicable

0.64 %

2, 3, 4, 8, 9, 11, 12, 15



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Acute Tox. — Acute toxicity - inhalation Asp. Tox. — Aspiration hazard Eye Irrit. — Eye irritation Acute Tox. — Acute toxicity - oral Skin Corr. — Skin corrosion Eye Dam. — Serious eye damage Aquatic Acute — Hazardous to the aquatic environment - acute Aquatic Chronic — Hazardous to the aquatic environment - chronic STOT RE — Specific target organ toxicity - repeated exposure

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).

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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:

according, according to acc., acc. to Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the ADR International Carriage of Dangerous Goods by Road) AOX Adsorbable organic halogen compounds approx. approximately Article number Art., Art. no. 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 body weight bw 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 for example (abbreviation of Latin 'exempli gratia'), for instance e.g. EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants) European Community EC ECHA European Chemicals Agency ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect European Economic Community EEC EINECS European Inventory of Existing Commercial Chemical Substances ELINCS European List of Notified Chemical Substances ΕN **European Norms** EPA United States Environmental Protection Agency (United States of America) ErCx, $E\mu Cx$, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants) etc. et cetera European Union FU EVAL Ethylene-vinyl alcohol copolymer Fax. Fax number



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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
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.
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 weight
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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