

## 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 2400

#### 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

GB

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

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

#### 1.4 Emergency telephone number

##### Emergency information services / official advisory body:

GB

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

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

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

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Hazard class	Hazard category	Hazard statement
Skin Irrit.	2	H315-Causes skin irritation.
STOT SE	3	H336-May cause drowsiness or dizziness.
Aquatic Chronic	2	H411-Toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

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

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400



**Warning**

H315-Causes skin irritation. H336-May cause drowsiness or dizziness. 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.  
 P261-Avoid breathing vapours or spray. P273-Avoid release to the environment. P280-Wear protective gloves.  
 P312-Call a POISON CENTRE / doctor if you feel unwell.  
 P501-Dispose of contents / container to an approved waste disposal facility.

EUH208-Contains 1,2-Propanediol, 3-amino-, N,N-dicoco alkyl derivs.. May produce an allergic reaction.

Distillates (petroleum), hydrotreated light

**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 %).  
 Dangerous vapours heavier than air.

**SECTION 3: Composition/information on ingredients**

Mineral oil raffinate  
 Additives

**3.1 Substances**

n.a.

**3.2 Mixtures**

<b>Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based</b>	
<b>Registration number (REACH)</b>	01-2119474878-16-XXXX
<b>Index</b>	649-482-00-X
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	276-737-9
<b>CAS</b>	72623-86-0
<b>content %</b>	50-<60
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	EUH066 Asp. Tox. 1, H304

<b>Distillates (petroleum), hydrotreated light</b>	
<b>Registration number (REACH)</b>	01-2119484819-18-XXXX
<b>Index</b>	649-422-00-2
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	265-149-8
<b>CAS</b>	64742-47-8
<b>content %</b>	25-<50
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

Page 3 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

<b>Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, &lt;0.03% aromatics</b>	
<b>Registration number (REACH)</b>	01-2119826592-36-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	934-954-2
<b>CAS</b>	---
<b>content %</b>	1-<10
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Asp. Tox. 1, H304

<b>Baseoil - unspecified *</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	---
<b>CAS</b>	---
<b>content %</b>	1-<10
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Asp. Tox. 1, H304

<b>1-(tert-dodecylthio)propan-2-ol</b>	
<b>Registration number (REACH)</b>	01-2119953277-30-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	266-582-5
<b>CAS</b>	67124-09-8
<b>content %</b>	0,1-<1
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Skin Sens. 1B, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)
<b>Specific Concentration Limits and ATE</b>	Skin Sens. 1B, H317: >=14,2001 %

<b>1,2-Propanediol, 3-amino-, N,N-dicoco alkyl derivs.</b>	
<b>Registration number (REACH)</b>	01-0000020142-86-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	482-000-4
<b>CAS</b>	---
<b>content %</b>	0,01-<1
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Skin Sens. 1B, H317 Aquatic Chronic 3, H412

<b>2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol</b>	
<b>Registration number (REACH)</b>	01-2119510877-33-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	620-540-6
<b>CAS</b>	1218787-32-6
<b>content %</b>	0,01-<0,1
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)
<b>Specific Concentration Limits and ATE</b>	ATE (oral): 1500 mg/kg

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

\* The contained mineral oil can be described by one or more of the following numbers:

<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	<b>Registration number (REACH)</b>	<b>Chemical name</b>
265-157-1	01-2119484627-25-XXXX	Distillates (petroleum), hydrotreated heavy paraffinic
265-169-7	01-2119471299-27-XXXX	Distillates (petroleum), solvent-dewaxed heavy paraffinic
265-158-7	01-2119487077-29-XXXX	Distillates (petroleum), hydrotreated light paraffinic
265-159-2	01-2119480132-48-XXXX	Distillates (petroleum), solvent-dewaxed light paraffinic

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.

Page 4 of 19  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 16.05.2024 / 0011  
Replacing version dated / version: 01.11.2021 / 0010  
Valid from: 16.05.2024  
PDF print date: 21.05.2024  
Zentralhydraulik-Oel 2400

The addition of the highest concentrations listed here can result in a classification. Only when this classification is listed in Section 2 does it apply. In all other cases the total concentration is below the classification.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

First-aiders should ensure they are protected!  
Never pour anything into the mouth of an unconscious person!

#### Inhalation

Remove person from danger area.  
Supply person with fresh air and consult doctor according to symptoms.

#### Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Unsuitable cleaning product:

Solvent

Thinners

In case of skin injury by high pressure, a risk of penetration of lubricant into the skin exists.  
Immediate admittance to a hospital.

#### Eye contact

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

#### Ingestion

Rinse the mouth thoroughly with water.  
Do not induce vomiting - give copious water to drink. Consult doctor immediately.  
Danger of aspiration.

### 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.

Eye contact:

Temporary irritation

With long-term contact:

Drying of the skin.

Dermatitis (skin inflammation)

Oil acne

On vapour formation:

Irritation of the respiratory tract

Ingestion:

Gastrointestinal disturbances

Nausea

Vomiting

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

Symptomatic treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

CO<sub>2</sub>

Foam

Extinction powder

#### 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

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 16.05.2024 / 0011  
Replacing version dated / version: 01.11.2021 / 0010  
Valid from: 16.05.2024  
PDF print date: 21.05.2024  
Zentralhydraulik-Oel 2400

### 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.  
Remove possible causes of ignition - do not smoke.  
Ensure sufficient supply of air.  
Avoid formation of oil mist.  
Avoid contact with eyes or skin.  
If applicable, caution - risk of slipping.

#### 6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

### 6.2 Environmental precautions

If leakage occurs, dam up.  
Resolve leaks if this possible without risk.  
Prevent 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.  
Oil binder  
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.

## SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

### 7.1 Precautions for safe handling

#### 7.1.1 General recommendations

Ensure good ventilation.  
Avoid formation of oil mist.  
Keep away from sources of ignition - Do not smoke.  
Do not heat to temperatures close to flash point.  
Avoid contact with eyes or 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.

CE

Page 6 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

Not to be stored in gangways or stair wells.  
 Store product closed and only in original packing.  
 Protect from direct sunlight and warming.  
 Under all circumstances prevent penetration into the soil.  
 Store in a dry place.

### 7.3 Specific end use(s)

No information available at present.  
 Observe the instructions for good working practice and the recommendations for risk assessment.  
 Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries, depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):  
 1200 mg/m<sup>3</sup>

CE	Chemical Name	Distillates (petroleum), hydrotreated light		
	WEL-TWA: 1200 mg/m <sup>3</sup> (>=C7 normal and branched chain alkanes)	WEL-STEL: ---	---	
	Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Hydrocarbons 0,1%/c (81 03 571)</li> <li>- Draeger - Hydrocarbons 2/a (81 03 581)</li> <li>- Compur - KITA-187 S (551 174)</li> </ul>		
	BMGV: ---	Other information: ---		
CE	Chemical Name	Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics		
	WEL-TWA: 800 mg/m <sup>3</sup>	WEL-STEL: ---	---	
	Monitoring procedures:	<ul style="list-style-type: none"> <li>- Draeger - Hydrocarbons 0,1%/c (81 03 571)</li> <li>- Draeger - Hydrocarbons 2/a (81 03 581)</li> <li>- Compur - KITA-187 S (551 174)</li> </ul>		
	BMGV: ---	Other information: (OEL acc. to RCP-method, paragraphs 84-87, EH40)		
CE	Chemical Name	Oil mist, mineral		
	WEL-TWA: 5 mg/m <sup>3</sup> (Mineral oil, excluding metal working fluids, ACGIH)	WEL-STEL: ---	---	
	Monitoring procedures:	- Draeger - Oil Mist 1/a (67 33 031)		
	BMGV: ---	Other information: ---		

Baseoil - unspecified						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - oral (animal feed)		PNEC	9,33	mg/kg	
Consumer	Human - inhalation	Long term, local effects	DNEL	1,19	mg/m <sup>3</sup>	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,74	mg/kg	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,97	mg/kg	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,58	mg/m <sup>3</sup>	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2,73	mg/m <sup>3</sup>	

1-(tert-dodecylthio)propan-2-ol						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - soil		PNEC	0,244	mg/kg	

Page 7 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

	Environment - sewage treatment plant		PNEC	100	mg/l	
	Environment - sediment, marine		PNEC	0,828	mg/kg	
	Environment - sediment, freshwater		PNEC	8,28	mg/kg	
	Environment - marine		PNEC	0,001	mg/l	
	Environment - freshwater		PNEC	0,006	mg/l	
	Environment - oral (animal feed)		PNEC	33,33	mg/kg	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,84	mg/kg body weight/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,9	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	1,67	mg/kg body weight/day	
Consumer	Human - dermal	Short term, local effects	DNEL	0,1077	mg/cm2	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	3,34	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	11,8	mg/m3	
Workers / employees	Human - dermal	Short term, local effects	DNEL	0,2154	mg/cm2	

**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	

GB - United Kingdom | WEL-TWA = Workplace Exposure Limit - Long-term exposure limit - 8-hour TWA (= time weighted average) reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (8) = Inhalable fraction (2004/37/CE, 2017/164/EU). (9) = Respirable fraction (2004/37/CE, 2017/164/EU). (11) = Inhalable fraction (2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (2004/37/CE). |  
 | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit - 15-minute reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (8) = Inhalable fraction (2004/37/CE, 2017/164/EU). (9) = Respirable fraction (2004/37/CE, 2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). |  
 | BMGV = Biological monitoring guidance value (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).  
 (EU) = Directive 98/24/EC or 2004/37/EC or SCOEL (Biological Limit Value - BLV, Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL)) |  
 | Other information (EH40/2005 Workplace exposure limits (Fourth Edition 2020)): Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.  
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:  
 (13) = The substance can cause sensitisation of the skin and of the respiratory tract (2004/37/CE), (14) = The substance can cause sensitisation of the skin (2004/37/CE). |

**8.2 Exposure controls**

**8.2.1 Appropriate engineering controls**

Page 8 of 19  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 16.05.2024 / 0011  
Replacing version dated / version: 01.11.2021 / 0010  
Valid from: 16.05.2024  
PDF print date: 21.05.2024  
Zentralhydraulik-Oel 2400

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:  
Protective gloves, oil resistant (EN ISO 374).  
If applicable  
Protective nitrile gloves (EN ISO 374).  
Protective gloves made of polyvinyl alcohol (EN ISO 374).  
Protective Viton® / fluoroelastomer gloves (EN ISO 374).  
Minimum layer thickness in mm:  
0,5  
Permeation time (penetration time) in minutes:  
480  
Protective hand cream recommended.  
The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.  
The recommended maximum wearing time is 50% of breakthrough time.

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

Respiratory protection:  
Normally not necessary.  
With oil mist formation:  
Filter A2 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
Colour:	Green
Odour:	Characteristic



Page 9 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

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:	120 °C
Auto-ignition temperature:	There is no information available on this parameter.
Decomposition temperature:	There is no information available on this parameter.
pH:	Mixture is non-soluble (in water).
Kinematic viscosity:	20,6 mm <sup>2</sup> /s (40°C)
Kinematic viscosity:	6,4 mm <sup>2</sup> /s (100°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:	0,855 g/cm <sup>3</sup>
Relative vapour density:	There is no information available on this parameter.
Particle characteristics:	Does not apply to liquids.
<b>9.2 Other information</b>	
Explosives:	Product is not explosive.
Oxidising liquids:	No

## 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

See also section 7.

Heating, open flame, ignition sources

### 10.5 Incompatible materials

See also section 7.

Avoid contact with strong oxidizing agents.

### 10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

Zentralhydraulik-Oel 2400						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:	ATE	>20	mg/l/4h			calculated value, Vapours
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value, Aerosol, Mist
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.

Page 10 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

<b>Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based</b>						
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	Analogous conclusion
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	Analogous conclusion
Acute toxicity, by inhalation:	LC50	>5,53	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol, Analogous conclusion
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant, Analogous conclusion
Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative, Analogous conclusion
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:					OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Carcinogenicity:				Mouse	OECD 451 (Carcinogenicity Studies)	Negative, Analogous conclusion
Carcinogenicity:					OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative
Reproductive toxicity:				Rat	OECD 421 (Reproduction/Developmental Toxicity Screening Test)	Negative, Analogous conclusion
Reproductive toxicity (Developmental toxicity):				Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 412 (Subacute Inhalation Toxicity - 28-Day Study)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative
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)	Analogous conclusion
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 bw/d	Rat	OECD 411 (Subchronic Dermal Toxicity - 90-day Study)	Analogous conclusion
Aspiration hazard:						Asp. Tox. 1

**Distillates (petroleum), hydrotreated light**

Page 11 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LD50	>5	mg/l/4h	Rat		
Skin corrosion/irritation:						Irritant
Serious eye damage/irritation:						Mild irritant
Respiratory or skin sensitisation:						No (skin contact)
Aspiration hazard:						Yes

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics						
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	>3160	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>5266	mg/m <sup>3</sup> /4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	>5000	mg/kg bw/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Analogous conclusion
Aspiration hazard:						Yes

Baseoil - unspecified						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Respiratory or skin sensitisation:						Not sensitising, Analogous conclusion
Aspiration hazard:						Yes
Symptoms:						mucous membrane irritation

1-(tert-dodecylthio)propan-2-ol						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Skin Sens. 1B

1,2-Propanediol, 3-amino-, N,N-dicoco alkyl derivs.						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2500	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat		

2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes

Page 12 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

Acute toxicity, by oral route:	LD50	1500	mg/kg	Rat	OECD 425 (Acute Oral Toxicity - Up-and-Down Procedure)	
Acute toxicity, by oral route:	ATE	1500	mg/kg			
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Corr. 1C
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact), Analogous conclusion
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Human being	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Reproductive toxicity:	NOAEL	150	mg/kg bw/d	Rat	OECD 443 (Extended One-Generation Reproductive Toxicity Study)	Negative, Analogous conclusion
Reproductive toxicity (Developmental toxicity):	NOEL	150	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Analogous conclusion, oral Study)

## 11.2. Information on other hazards

Zentralhydraulik-Oel 2400						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Endocrine disrupting properties:						Does not apply to mixtures.
Other information:						No other relevant information available on adverse effects on health.

## SECTION 12: Ecological information

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

Zentralhydraulik-Oel 2400							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Endocrine disrupting properties:							Does not apply to mixtures.

Page 13 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

12.7. Other adverse effects:							No information available on other adverse effects on the environment.
Other information:							DOC-elimination degree(complexing organic substance)>= 80%/28d: No

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
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:	LC50	96h	>100	mg/l			
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 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	Pseudokirchneriella 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)	Analogous conclusion
12.2. Persistence and degradability:						OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		>6				

Distillates (petroleum), hydrotreated light							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LL50	96h	2-5	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	21d	1,2	mg/l	Daphnia magna		

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>1028	mg/l	Scophthalmus maximus	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOELR	28d	>1000	mg/l	Oncorhynchus mykiss	QSAR	
12.1. Toxicity to daphnia:	LC50	48h	>3193	mg/l	Acartia tonsa	ISO 14669	
12.1. Toxicity to daphnia:	NOELR	21d	>1000	mg/l	Daphnia magna	QSAR	
12.1. Toxicity to algae:	ErL50	72h	>10000	mg/l	Skeletonema costatum	ISO 10253	
12.2. Persistence and degradability:		28d	74	%		OECD 306 (Biodegradability in Seawater)	Readily biodegradable

Page 14 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Water solubility:							Insoluble

Baseoil - unspecified							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Pimephales promelas		
12.1. Toxicity to daphnia:	EC50	48h	>10000	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>10	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Scenedesmus quadricauda		
12.2. Persistence and degradability:		28d	31	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Not readily biodegradable

1-(tert-dodecylthio)propan-2-ol							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,75	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	96h	0,56	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	0,58	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	0,32	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	EC50	21d	0,75	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	96h	>100	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	96h	100	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	5,9	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	
12.3. Bioaccumulative potential:	Log Kow		5,7				
Toxicity to bacteria:	EC50	3h	>10000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

1,2-Propanediol, 3-amino-, N,N-dicoco alkyl derivs.							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	48h	>100	mg/l	Oncorhynchus mykiss		

Page 15 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

12.1. Toxicity to fish:	NOEC/NOEL	96h	100	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	EC50	48h	230	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	NOEC/NOEL	48h	32	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	16	mg/l	Desmodesmus subspicatus		
12.1. Toxicity to algae:	NOEC/NOEL	72h	3,2	mg/l	Desmodesmus subspicatus		
12.2. Persistence and degradability:		28d	11	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
12.3. Bioaccumulative potential:	Log Kow		3,86				calculated value
Toxicity to bacteria:	IC50	3h	>1000	mg/l			
Toxicity to bacteria:	NOEC/NOEL	3h	1000	mg/l			

<b>2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol</b>							
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Time</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
12.1. Toxicity to fish:	LC50	96h	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	OECD 211 (Daphnia magna Reproduction Test)	Analogous conclusion
12.1. Toxicity to algae:	EC50	72h	0,0538	mg/l	Pseudokirchneriella 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
12.2. 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
12.3. Bioaccumulative potential:	BCF		110,2				calculated
Toxicity to bacteria:	EC50	3h	167	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	Analogous conclusion

## 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

Page 16 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

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.  
 Implement substance recycling.  
 E.g. suitable incineration plant.



### For contaminated packing material

Pay attention to local and national official regulations.  
 15 01 02 plastic packaging  
 15 01 04 metallic packaging  
 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



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

14.1. UN number or ID number:	3082	
14.2. UN proper shipping name:	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISTILLATES (PETROLEUM), HYDROTREATED LIGHT)	
14.3. Transport hazard class(es):	9	
14.4. Packing group:	III	
14.5. Environmental hazards:	environmentally hazardous	
Tunnel restriction code:	-	
Classification code:	M6	
LQ:	5 L	
Transport category:	3	

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

14.1. UN number or ID number:	3082	
14.2. UN proper shipping name:	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISTILLATES (PETROLEUM), HYDROTREATED LIGHT)	
14.3. Transport hazard class(es):	9	
14.4. Packing group:	III	
14.5. Environmental hazards:	environmentally hazardous	
Marine Pollutant:	Yes	
EmS:	F-A, S-F	

#### Transport by air (IATA)

14.1. UN number or ID number:	3082	
14.2. UN proper shipping name:	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (DISTILLATES (PETROLEUM), HYDROTREATED LIGHT)	
14.3. Transport hazard class(es):	9	
14.4. Packing group:	III	
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

Freight 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



Page 17 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

Observe restrictions:  
 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.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier 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.

Directive 2010/75/EU (VOC): ~ 31 %

Observe incident regulations.

National requirements/regulations on safety and health protection must be applied when using work equipment.

## 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

## SECTION 16: Other information

Revised sections: 3, 8, 11, 12, 15  
 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 (EC) No. 1272/2008 (CLP)	Evaluation method used
Skin Irrit. 2, H315	Classification according to calculation procedure.
STOT SE 3, H336	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.

- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- EUH066 Repeated exposure may cause skin dryness or cracking.

- Skin Irrit. — Skin irritation
- STOT SE — Specific target organ toxicity - single exposure - narcotic effects
- Aquatic Chronic — Hazardous to the aquatic environment - chronic
- Asp. Tox. — Aspiration hazard
- Skin Sens. — Skin sensitization
- Aquatic Acute — Hazardous to the aquatic environment - acute

Page 18 of 19  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 16.05.2024 / 0011  
 Replacing version dated / version: 01.11.2021 / 0010  
 Valid from: 16.05.2024  
 PDF print date: 21.05.2024  
 Zentralhydraulik-Oel 2400

Acute Tox. — Acute toxicity - oral  
 Skin Corr. — Skin corrosion  
 Eye Dam. — Serious eye damage

### Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.  
 Guidelines for the preparation of safety data sheets as amended (ECHA).  
 Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).  
 Safety data sheets for the constituent substances.  
 ECHA Homepage - Information about chemicals.  
 GESTIS Substance Database (Germany).  
 German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).  
 EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.  
 National Lists of Occupational Exposure Limits for each country as amended.  
 Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

### Any abbreviations and acronyms used in this document:

acc., acc. to according, according to  
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 AOX Adsorbable organic halogen compounds  
 approx. approximately  
 Art., Art. no. Article number  
 ASTM ASTM International (American Society for Testing and Materials)  
 ATE Acute Toxicity Estimate  
 BAM Bundesanstalt für Materialforschung und -prüfung (= Federal Institute for Materials Research and Testing, Germany)  
 BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)  
 BCF Bioconcentration factor  
 BSEF The International Bromine Council  
 CAS Chemical Abstracts Service  
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)  
 CMR carcinogenic, mutagenic, reproductive toxic  
 DMEL Derived Minimum Effect Level  
 DNEL Derived No Effect Level  
 DOC Dissolved organic carbon  
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance  
 EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)  
 EC European Community  
 ECHA European Chemicals Agency  
 ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect  
 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, ErCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)  
 etc. et cetera  
 EU European Union  
 EVAL Ethylene-vinyl alcohol copolymer  
 Fax. Fax number  
 gen. general  
 GHS Globally Harmonized System of Classification and Labelling of Chemicals  
 GWP Global warming potential  
 Koc Adsorption coefficient of organic carbon in the soil  
 Kow octanol-water partition coefficient  
 IARC International Agency for Research on Cancer  
 IATA International Air Transport Association  
 IBC (Code) International Bulk Chemical (Code)  
 IMDG-code International Maritime Code for Dangerous Goods

Page 19 of 19  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 16.05.2024 / 0011  
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Zentralhydraulik-Oel 2400

incl. including, inclusive  
IUCLD International Uniform Chemical Information Database  
IUPAC International Union for Pure Applied Chemistry  
LC50 Lethal Concentration to 50 % of a test population  
LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)  
Log Koc Logarithm of adsorption coefficient of organic carbon in the soil  
Log Kow, Log Pow Logarithm of octanol-water partition coefficient  
LQ Limited Quantities  
MARPOL International Convention for the Prevention of Marine Pollution from Ships  
mg/kg bw mg/kg body weight  
mg/kg bw/d, mg/kg bw/day mg/kg body weight/day  
mg/kg dw mg/kg dry weight  
mg/kg wwt mg/kg wet weight  
n.a. not applicable  
n.av. not available  
n.c. not checked  
n.d.a. no data available  
NIOSH National Institute for Occupational Safety and Health (USA)  
NLP No-longer-Polymer  
NOEC, NOEL No Observed Effect Concentration/Level  
OECD Organisation for Economic Co-operation and Development  
org. organic  
OSHA Occupational Safety and Health Administration (USA)  
PBT persistent, bioaccumulative and toxic  
PE Polyethylene  
PNEC Predicted No Effect Concentration  
ppm parts per million  
PVC Polyvinylchloride  
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)  
REACH-IT List-No. 6/7/8/9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.  
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)  
SVHC Substances of Very High Concern  
Tel. Telephone  
TOC Total organic carbon  
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods  
VOC Volatile organic compounds  
vPvB very persistent and very bioaccumulative

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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