

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Hydrauliköl HLP-D 68**

Revision date: 14.02.2022

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

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**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Hydraulic oil.  
Product Categories [PC]: PC 17 Hydraulic fluids.

**1.3. Details of the supplier of the safety data sheet**

Company name:	HSR GmbH	
Street:	Oderstraße 3	
Place:	D-47506 Neukirchen-Vluyn	
Telephone:	+49 (0) 2845 2950 0	Telefax: +49 (0) 2845 2950 480
E-mail:	info@hsr.de	
Web:	www.hsr.de	

**1.4. Emergency telephone number:**

Giftinformationszentrum - Nord: +49 (0) 551 19240

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

**2.2. Label elements****Regulation (EC) No 1272/2008****Special labelling of certain mixtures**

EUH208	Contains Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched). May produce an allergic reaction.
EUH210	Safety data sheet available on request.

**2.3. Other hazards**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.  
Do not handle until all safety precautions have been read and understood.  
Discharge into the environment must be avoided.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Contains: Mineral oil, Additive.

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**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)			0,2 - 0,3 %
	931-384-6		01-2119493620-38	
	Acute Tox. 4, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H302 H319 H317 H411			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
	931-384-6	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	0,2 - 0,3 %
	oral: LD50 = 2000 mg/kg Eye Irrit. 2; H319: >= 50 - 100 Skin Sens. 1; H317: >= 9,39 - 100		

**Further Information**

The mineral oils in the product contain &lt; 3 % DMSO-extract (IP 346).

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**General information**

First aider: Pay attention to self-protection! Move victim out of danger zone.  
 Remove contaminated, saturated clothing immediately.  
 In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).  
 Position and transport victim on their side. In case of respiratory distress, bring into semi-upright, seated position.

**After inhalation**

Avoid oil mist  
 Move victim to fresh air. Put victim at rest and keep warm.  
 Get medical advice/attention if you feel unwell.

**After contact with skin**

After contact with skin, wash immediately with: Water and soap.  
 Change contaminated clothing.  
 In case of skin irritation, seek medical treatment.

**After contact with eyes**

Rinse cautiously with water for several minutes.  
 Remove contact lenses, if present and easy to do. Continue rinsing.  
 In case of troubles or persistent symptoms, consult an ophthalmologist.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious).  
 Do NOT induce vomiting. Call a physician immediately.  
 No administration in cases of unconsciousness or cramps.

**4.2. Most important symptoms and effects, both acute and delayed**

No further relevant information available.  
 In all cases of doubt, or when symptoms persist, seek medical advice.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

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**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**Foam, Extinguishing powder, Carbon dioxide (CO<sub>2</sub>), Water mist, Sand.**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>), Sulphur dioxide (SO<sub>2</sub>), Phosphorus oxides, Carbon monoxide.**5.3. Advice for firefighters**

In case of fire and/or explosion do not breathe fumes.

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation.

Respiratory protection necessary at: aerosol or mist generation. (See section 8.)

Avoid contact with skin and eyes. Wear personal protection equipment.

In case of leakage, eliminate all ignition sources. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

Do not allow to enter into soil/subsoil.

**6.3. Methods and material for containment and cleaning up****Other information**

Prevent spread over a wide area (e.g. by containment or oil barriers).

Take up mechanically, placing in appropriate containers for disposal.

Remove from the water surface (e.g. skimming, sucking).

High slip hazard because of leaking or spilled product.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

**6.4. Reference to other sections**

Personal protection equipment: refer to chapter 8.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Do not breathe vapour/aerosol. Provide adequate ventilation.

Avoid contact with skin and eyes. Take off immediately all contaminated clothing.

For industrial purposes only.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

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Avoid oil mist When hot, product develops flammable vapours.  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 Fire class B (DIN EN 2).

**Advice on general occupational hygiene**

Do not eat, drink, smoke or sneeze at the workplace.  
 Avoid contact with skin, eyes and clothes.  
 Protect skin by using skin protective cream.  
 Take off immediately all contaminated clothing and wash it before reuse.  
 Wash hands before breaks and after work.  
 After cleaning apply high-fat content skin care cream.  
 Do not put any product-impregnated cleaning rags into your trouser pockets.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Only use containers specifically approved for the substance/product.  
 Keep container tightly closed and in a well-ventilated place.  
 Always close containers tightly after the removal of product.  
 Recommended storage temperature: 5 - 30 °C. Do not store at temperatures over: 40 °C

**Hints on joint storage**

Do not store together with: Oxidising agent,  
 Keep away from food, drink and animal feedingstuffs.

**Further information on storage conditions**

Protect against: Heat, Light, moisture. Protect from direct sunlight.

**7.3. Specific end use(s)**

Hydraulic oil.  
 Observe technical data sheet.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**DNEL/DMEL values**

CAS No	Name of agent	Exposure route	Effect	Value
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)			
	Worker DNEL, long-term	dermal	systemic	12,5 mg/kg bw/day
	Worker DNEL, long-term	inhalation	systemic	8,56 mg/m³
	Consumer DNEL, long-term	dermal	systemic	6,25 mg/kg bw/day
	Consumer DNEL, acute	dermal	local	0,024 mg/cm²
	Consumer DNEL, long-term	inhalation	systemic	2,2 mg/m³
	Consumer DNEL, long-term	oral	systemic	0,25 mg/kg bw/day

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**PNEC values**

CAS No	Name of agent	
Environmental compartment		Value
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)		
Freshwater		0,001 mg/l
Freshwater (intermittent releases)		0,085 mg/l
Marine water		0,0001 mg/l
Freshwater sediment		14,4 mg/kg
Marine sediment		1,44 mg/kg
Micro-organisms in sewage treatment plants (STP)		24,33 mg/l
Soil		10 mg/kg

**Additional advice on limit values**

- Air limit values: Mineral oil mist
- Limit value type (country of origin): US-OSHA PEL-Value: 5 mg/m<sup>3</sup>
- Limit value type (country of origin): ACGIH STEL-Value: 10 mg/m<sup>3</sup>

**8.2. Exposure controls**

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

- Suitable eye protection: Tightly sealed safety glasses. (EN 166)
- In case of increasing hazard add: Eye-shade.

**Hand protection**

- Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): EN 420, EN ISO 374.
- Suitable material: NBR (Nitrile rubber), PVC (polyvinyl chloride), FKM (fluororubber).
- Required properties: liquid-tight.
- penetration time (maximum wearing period): > 240 min.
- Thickness of glove material: 0,4 mm
- Before using check leak tightness / impermeability.

**Skin protection**

- Handling larger quantities: Wear suitable protective clothing.

**Respiratory protection**

- With correct and proper use, and under normal conditions, breathing protection is not required.
- Respiratory protection necessary at: exceeding exposure limit values, insufficient ventilation, aerosol or mist generation.
- Suitable respiratory protective equipment: A2/P2 Combination filter device (DIN EN 141)..

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

- Physical state: liquid
- Colour: light yellow
- Odour: like: mineral oil.

**Test method**

**Changes in the physical state**

- Melting point/freezing point: No data available.
- Boiling point or initial boiling point and boiling range: No data available.

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Pour point: &lt; -21 °C DIN ISO 3016

Flash point: &gt; 210 °C DIN ISO 2592

**Oxidizing properties**

No data available.

pH-Value: not applicable

Viscosity / kinematic:  
(at 40 °C) approx. 68 mm<sup>2</sup>/s DIN 51562

Water solubility: practically insoluble

Vapour pressure:  
(at 20 °C) < 0,1 hPaDensity (at 15 °C): approx. 0,87 - 0,89 g/cm<sup>3</sup> DIN 51757**9.2. Other information****Other safety characteristics**

none

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No risks worthy of mention.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

Decomposition takes place from temperatures above: 120 °C

**10.3. Possibility of hazardous reactions**

No hazardous reaction when handled and stored according to provisions.

Do not mix with: Oxidizing agents, strong.

**10.4. Conditions to avoid**

storage stability: Do not store at temperatures over: 40 °C

This material is combustible, but will not ignite readily.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

**10.5. Incompatible materials**

Oxidizing agents, strong.

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to the escape of irritating gases and vapours.

In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>), Sulphur dioxide (SO<sub>2</sub>), Phosphorus oxides, Carbon monoxide.**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

Based on available data, the classification criteria are not met.

**ATEmix calculated**

ATE (oral) &gt; 2000 mg/kg; ATE (dermal) &gt; 2000 mg/kg; ATE (inhalation vapour) &gt; 20 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)				
	oral	LD50 2000 mg/kg	Rat		OECD 401

**Irritation and corrosivity**

Irritant effect on the skin: On short hand contact: non-irritant.

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

Irritant effect on the eye: slightly irritant but not relevant for classification.

**Sensitising effects**

Contains Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched): May produce an allergic reaction.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

The mineral oils in the product contain &lt; 3 % DMSO-extract (IP 346).

**STOT-repeated exposure**

Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**
**12.1. Toxicity**

There are no data available on the mixture itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)					
	Acute fish toxicity	LL50 24 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)		OECD 203
	Acute algae toxicity	ErC50 15 mg/l	96 h	Pseudokirchneriella subcapitata		OECD 201
	Acute crustacea toxicity	EL50 mg/l 10,5	48 h	Daphnia magna		OECD 202
	Algae toxicity	NOEC 1,7 mg/l	4 d	Pseudokirchneriella subcapitata		OECD 201
	Crustacea toxicity	NOEC mg/l 0,12	21 d	Daphnia magna		OECD 211
	Acute bacteria toxicity	EC50 mg/l ( ) 2433	3 h	Activated sludge		OECD 209

**12.2. Persistence and degradability**

Not easily bio-degradable (according to OECD-criteria).

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CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)			
	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	3,6	28	
	Not readily biodegradable (according to OECD criteria)			

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil**

State of matter: liquid at room temperature.

If product enters soil, it will be mobile and may contaminate groundwater

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

PBT: not applicable.

vPvB: not applicable.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

Discharge into the environment must be avoided.

Do not allow to enter into surface water or drains.

Do not allow to enter into soil/subsoil.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Do not allow to enter into surface water or drains.

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)". Dispose of waste according to applicable legislation.

The waste key according to the European Waste Catalogue (EWC number) refers to the real wastes origin and therefore is not product- but use-oriented.

Consult the local waste disposal expert about waste disposal.

Observe mixture permissions according to "Altölverordnung (Waste oil directive)".

**List of Wastes Code - residues/unused products**

130110 OIL WASTES AND WASTES OF LIQUID FUELS (EXCEPT EDIBLE OILS, AND THOSE IN CHAPTERS 05, 12 AND 19); waste hydraulic oils; mineral based non-chlorinated hydraulic oils; hazardous waste

**List of Wastes Code - used product**

130110 OIL WASTES AND WASTES OF LIQUID FUELS (EXCEPT EDIBLE OILS, AND THOSE IN CHAPTERS 05, 12 AND 19); waste hydraulic oils; mineral based non-chlorinated hydraulic oils; hazardous waste

**List of Wastes Code - contaminated packaging**

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150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**Contaminated packaging**

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing which cannot be properly cleaned must be disposed of.

**SECTION 14: Transport information****Land transport (ADR/RID)**

**14.1. UN number or ID number:** not relevant  
**14.2. UN proper shipping name:** not relevant  
**14.3. Transport hazard class(es):** not relevant  
**14.4. Packing group:** not relevant

**Other applicable information (land transport)**

No dangerous good in sense of these transport regulations.

**Inland waterways transport (ADN)****Other applicable information (inland waterways transport)**

No information available.

**Marine transport (IMDG)****Other applicable information (marine transport)**

No dangerous good in sense of these transport regulations.

**Air transport (ICAO-TI/IATA-DGR)****Other applicable information (air transport)**

No dangerous good in sense of these transport regulations.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Handling (Transport information): No special precautionary measures are necessary. See protective measures under point 7 and 8.

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

No information available.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information****Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH).

**National regulatory information**

Water hazard class (D): 1 - slightly hazardous to water

**Additional information**

Restricted to professional users.

The receiver of our product is singularly responsible for adhering to existing laws and regulations. Observe in addition any national regulations!

**15.2. Chemical safety assessment**

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Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 4,15.

**Relevant H and EUH statements (number and full text)**

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched). May produce an allergic reaction.
EUH210	Safety data sheet available on request.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*