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

· **1.1 Product identifier**

· **Trade name: Hydro HLP 46**

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the mixture**
Hydraulic fluid
ISO VG 46

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Hengst SE
Nienkamp 55-85
48147 Münster
Germany

T +49 (0)251 20 20 2-0
F +49 (0)251 20 20 2-646

· **Further information obtainable from:** oil@hengst.com
· **1.4 Emergency telephone number:**
Informationszentrale gegen Vergiftungen Uni - Klinikum Bonn; Notfall - Nr.: +49 228 19 240

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**
The product is not classified, according to the CLP regulation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements** Void
· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable
· **vPvB:** Not applicable

SECTION 3: Composition/information on ingredients

· **3.1 Substances**
· **CAS No. Description**
Not applicable

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· **Identification number(s)**
· **EC number:** Not applicable
· **3.2 Mixtures**
· **Description:** Preparation of base oils and additives.

· **Dangerous components:** Void
· **SVHC** None
· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:** Take affected persons out of danger area and lay down.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:** Rinse opened eye for several minutes under running water.
· **After swallowing:** If symptoms persist consult doctor.
· **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray.
Use fire extinguishing methods suitable to surrounding conditions.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Nitrogen oxides (NOx)
Carbon monoxide (CO)
Carbon dioxide (CO2)
· **5.3 Advice for firefighters**
· **Protective equipment:** Wear self-contained respiratory protective device.
· **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.

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SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Keep people at a distance and stay on the windward side.
· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
· **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Avoid the formation of oil haze.
· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Note Regulation on facilities for the storage, filling and handling water-polluting substances. ..
· **Information about storage in one common storage facility:** Store away from oxidising agents.
· **Further information about storage conditions:**
Protect from contamination.
Storage in a collecting room is required.
· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**
· **Ingredients with limit values that require monitoring at the workplace:**

Oilfog and Oilfumes	TLV-8h-TWA	5mg/m³
	TLV-15min-STEL	10mg/m³

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Appropriate engineering controls** No further data; see section 7.
· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.

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· **Respiratory protection:** Not required
· **Hand protection**
Preventive skin protection by use of skin-protecting agents is recommended.
Check the permeability prior to each anewed use of the glove.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Not suitable are gloves made of the following materials:** Leather gloves
· **Eye/face protection** Goggles recommended during refilling
· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **General Information**

· **Physical state**	Liquid
· **Colour:**	Brown
· **Odour:**	Mineral-oil-like
· **Odour threshold:**	Not determined
· **Melting point/freezing point:**	Undetermined
· **Boiling point or initial boiling point and boiling range**	Undetermined
· **Flammability**	Not applicable
· **Lower and upper explosion limit**	
· **Lower:**	0.6 Vol % (DIN EN 1839)
· **Upper:**	6.5 Vol % (DIN EN 1839)
· **Flash point:**	232 °C (DIN ISO 2592)
· **Decomposition temperature:**	Not determined
· **pH**	Not determined
· **Viscosity:**	
· **Kinematic viscosity at 40 °C**	45.8 mm^2/s (DIN 51562)
· **Dynamic:**	Not determined

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· **Solubility**	
· **water:**	Not miscible or difficult to mix.
· **Partition coefficient n-octanol/water (log value)**	Not determined
· **Vapour pressure:**	Not determined
· **Density and/or relative density**	
· **Density at 20 °C:**	0.871 g/cm³ (DIN 51757)
· **Relative density**	Not determined
· **Vapour density**	Not determined
· **9.2 Other information**	
· **Appearance:**	
· **Form:**	Fluid
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Not determined
· **Explosive properties:**	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· **Change in condition**	
· **Softening point/range**	
· **Pour point**	- 27 °C (DIN ISO 3016)
· **Evaporation rate**	Not determined
· **Information with regard to physical hazard classes**	
· **Explosives**	Void
· **Flammable gases**	Void
· **Aerosols**	Void
· **Oxidising gases**	Void
· **Gases under pressure**	Void
· **Flammable liquids**	Void
· **Flammable solids**	Void
· **Self-reactive substances and mixtures**	Void
· **Pyrophoric liquids**	Void
· **Pyrophoric solids**	Void
· **Self-heating substances and mixtures**	Void
· **Substances and mixtures, which emit flammable gases in contact with water**	Void
· **Oxidising liquids**	Void
· **Oxidising solids**	Void
· **Organic peroxides**	Void
· **Corrosive to metals**	Void

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· **Desensitised explosives** Void

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions** Reacts with strong oxidising agents.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.
· **Primary irritant effect:**
· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.
· **Additional toxicological information:**
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
The product contains less than 3% DMSO extract (method IP346). A classification as a carcinogen with R45 is deleted. (Note L)
· **11.2 Information on other hazards**
· **Endocrine disrupting properties**
CAS: 74499-35-7 phenol, 2-dodecyl-, branched: List I

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SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:**
The product spreads out on the surface of the water. A small fraction of the constituents will be dissolved.It prevents the solution of oxygen and can cause the death of water organismn.
· **12.2 Persistence and degradability** Not easily biodegradable
· **12.3 Bioaccumulative potential** Non significant accumulation in organisms
· **12.4 Mobility in soil** No further relevant information available.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable
· **vPvB:** Not applicable
· **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
· **12.7 Other adverse effects**
· **Remark:** The product can easily be separated by an oil separator (skimmer) of the water surface.
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
When storing used mineral oil products, ensure that the categories for waste oil and mixing instructions are observed.
Delivery of waste oil to offically authorised collectors only.
· **European waste catalogue**

13 01 10* mineral based non-chlorinated hydraulic oils

· **Uncleaned packaging:**
· **Recommendation:**
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

SECTION 14: Transport information

· **14.1 UN number or ID number**
· **ADR, ADN, IMDG, IATA** Void

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· **14.2 UN proper shipping name**
· **ADR** Void
Void
· **ADN, IMDG, IATA** Void
· **14.3 Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**
· **Class** Void
· **14.4 Packing group**
· **ADR, IMDG, IATA** Void
· **14.5 Environmental hazards:**
· **Marine pollutant:** No
· **14.6 Special precautions for user** Not applicable
· **14.7 Maritime transport in bulk according to IMO instruments** Not applicable
· **UN "Model Regulation":** Void

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Labelling according to Regulation (EC) No 1272/2008** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements** Void

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
None of the ingredients is listed.
· **REGULATION (EU) 2019/1148**
· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
None of the ingredients is listed.
· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
None of the ingredients is listed.
· **Regulation (EC) No 273/2004 on drug precursors**
None of the ingredients is listed.

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· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **National regulations:**

· **Additional classification according to Decree on Hazardous Materials, Annex II:**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Information about limitation of use:** none

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product safety

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative

· **Sources** Concawe Product Dossier No.97/108. Concawe Product Dossier Nn. 01/54.

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