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

· **1.1 Product identifier**

· **Trade name: 80W-90 MTF GL-4**

· **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**
Gear oil
Viscosity class: SAE 80W-90

· **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**
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements**
H412 Harmful to aquatic life with long lasting effects.
· **Precautionary statements**
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Additional information:**
Contains Amines, C12-14-tert-alkyl. May produce an allergic reaction.
· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** None

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· **vPvB:** None

## SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** Preparation of base oils and additives.

· **Dangerous components:**

Methacrylate Copolymer ≤1%
Eye Irrit. 2, H319

EC number: 931-384-6 Amines, C12-14-alkyl, reaction products with hexanol, phosphorus ≤1%
Reg.nr.: 01-2119493620-38 oxide (P2O5), phosphorus sulfide (P2S5) and propylene oxide.
Eye Dam. 1, H318; Skin Sens. 1, H317

· **SVHC** Void
· **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:
Sulphur dioxide (SO2)
Carbonmonoxide and Carbondioxide

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· **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.

## 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 product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
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**
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 foodstuffs.
· **Further information about storage conditions:** 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.

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· **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:** Wash hands before breaks and at the end of work.
· **Respiratory protection:** Not required
· **Hand protection**
Preventive skin protection by use of skin-protecting agents is recommended.
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

## 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:** | 230 °C (DIN ISO 2592) |
| · **Decomposition temperature:** | Not determined |
| · **pH** | Not determined |

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| | |
|---|---|
| · **Viscosity:** | |
| · **Kinematic viscosity at 40 °C** | 160 mm²/s (DIN 51562) |
| · **Dynamic:** | Not determined |
| · **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:** | 0.88 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** | - 33 °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 |

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· **Organic peroxides** Void
· **Corrosive to metals** Void
· **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.
· **LD/LC50 values relevant for classification:**

**CAS: 64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic**

| | | |
|---|---|---|
| Oral | LD50 | >5,000 mg/kg (rat) |
| Dermal | LD50 | >5,000 mg/kg (rabbit) |

Inhalative LC50/4 h 5.1 mg/l (rat)
· **Primary irritant effect:**
· **Skin corrosion/irritation**
Prolonged skin contact it may cause irritations
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)

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· **11.2 Information on other hazards**
· **Endocrine disrupting properties**
None of the ingredients is listed.

## 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
· **Degree of elimination:**
**CAS: 64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic**
EC50 >100 mg/kg /48h (al2)
>10,000 mg/kg /48h (daphnia)
· **12.3 Bioaccumulative potential**
Due to the distribution coefficient n-octanol/water a worth-mentioning accumulation in organisms is not expected.
· **12.4 Mobility in soil** No further relevant information available.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** None
· **vPvB:** None
· **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
· **12.7 Other adverse effects**
· **Remark:** Harmful to fish
· **Remark:** The product can easily be separated by an oil separator (skimmer) of the water surface.
· **Additional ecological information:**
· **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Harmful to aquatic organisms

## 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.

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Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Delivery of waste oil to offically authorised collectors only.

· **European waste catalogue**

13 02 05* mineral-based non-chlorinated engine, gear and lubricating 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 |
| · **14.2 UN proper shipping name** | |
| · **ADR, 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**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements**
H412 Harmful to aquatic life with long lasting effects.
· **Precautionary statements**
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
· **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.
· **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.
· **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.

· **Relevant phrases**
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.

· **Department issuing SDS:** Product safety
· **Version number of previous version:** 3
· **Abbreviations and acronyms:**
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
· **Sources** Concawe Product Dossier No.97/108. Concawe Product Dossier Nn. 01/54.

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