



Safety data sheet according to 1907/2006/EC, Article 31

Printing date 16.07.2019

Version number 11

Revision: 29.10.2015

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

- **1.1 Product identifier**
 - **Trade name: Alfa Laval Hydraulikolja**
 - **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
 - **1.3 Details of the supplier of the safety data sheet**
 - **Supplier:**
Alfa Laval Tumba AB
Hans Stahles väg 7
S-147 80 Tumba
Sweden
+46 8 530 650 00
info.se@alfalaval.com
 - **Further information obtainable from:**
For further questions regarding the safety data sheet, please contact your local Alfa Laval Sales Company which you find at www.alfalaval.com or in section 16 "Other Information" in the end of the safety data sheet
 - **1.4 Emergency telephone number:**
For immediate, life-threatening emergencies, call 999
For health advice and information (24h) dial 111 (NHS direct).
- In Europe: Call 112 and ask for poison information.

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

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

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· Dangerous components:

Mineral oil (DMSO <3%, IP 346) *

(* Contains one or more of the following mineral oils: This product contains no components in sufficient concentration for classification as a health or environmental hazard under current legislation. Not classified as carcinogenic by Note L of the EU Directive 1999:3 when the substances contains <3% DMSO extract, IP 346. CAS / EINECS No: 265-090-8, 64741-88-4, 265-091-3, 64741-89-5, 265-096-0, 64741-95-3, 265-097 - 6, 64741-96-4, 265-098-1, 64741-97-5, 265-155-0, 64742-52-5, 265-101-6, 64742-01-4, 265-156-6; 64742-53-6, 265-157-1, 64742-54-7 265-158-7, 64742-55-8, 265-159-2, 64742-56-9, 265-160-8, 64742 - 57-0, 265-161-3, 64742-58-1, 265-166-0, 64742-62-7, 265-176-5, 64742-71-8, 276-736-3, 72623-85 - 9, 276-735-8, 72623-83-7, 276-737-9, CAS 72623-86-0, 276-738-4, 72623-87-1, 265-169-7, 64742-65-0; 278-012-2, 74869-22-0.

≥0-≤100%

substance with a Community workplace exposure limit

· Additional information:

The classification as carcinogens does not apply since the substances above contain less than 3 % DMSO extract as measured by the method IP 346, defined by the Institute of Petroleum, London. 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:

Wash contaminated clothing before reuse.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

· After inhalation: Supply fresh air; consult doctor if symptoms persists.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

Product in use under high pressure that has been forced under the skin, is a serious situation that requires IMMEDIATE hospital treatment.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do NOT induce vomiting.

If symptoms persist consult doctor.

A person vomiting while laying on their back should be turned onto their side.

· 4.2 Most important symptoms and effects, both acute and delayed

High pressure injection under skin: local necrosis.

Rough skin. May cause skin dryness and irritation.

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

Information on high pressure equipment:

Accidental speed injection under the skin of this type of material can cause serious injury. Seek immediately medical attention if an accident of this nature occurs. Even if the wound at the injection site does not look that severe at a first glance, it may lead to malformation or amputation of the affected limb if not treated directly.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
 - Foam
 - Fire-extinguishing powder
 - Carbon dioxide
 - Water hazeUse 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**
 - Formation of toxic gases is possible during heating or in case of fire.
 - Carbon monoxide and carbon dioxide
 - Hydrocarbons
- **5.3 Advice for firefighters**
- **Protective equipment:**
 - Wear self-contained respiratory protective device.
 - Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
 - Avoid contact with spilled material.
 - Particular danger of slipping on leaked/spilled product.
 - Do not breathe vapour.
- **6.2 Environmental precautions:**
 - Prevent from spreading (e.g. by damming-in or oil barriers).
 - 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).
 - Pick up mechanically.
 - Send for recovery or disposal in suitable receptacles.
- **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.
 - Avoid contact with skin and eyes.
 - When using do not eat, drink or smoke.
 - See Section 8 for information on personal protection equipment.
- **Information about fire - and explosion protection:**
 - Material can accumulate static charges which may cause an electrical sprak (ignition source).
 - Keep ignition sources away - Do not smoke.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Keep away from heat and direct sunlight.
Provide ventilation for receptacles.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:**
Store in a cool, dry and ventilated place between 0°C - 50°C, preferably in the original package or container.
- **7.3 Specific end use(s)**
Hydraulic fluid
Professional use only.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

Mineral oil (DMSO <3%, IP 346) *

(* Contains one or more of the following mineral oils: This product contains no components in sufficient concentration for classification as a health or environmental hazard under current legislation. Not classified as carcinogenic by Note L of the EU Directive 1999:3 when the substances contains <3% DMSO extract, IP 346. CAS / EINECS No: 265-090-8, 64741-88-4, 265-091-3, 64741-89-5, 265-096-0, 64741-95-3, 265-097 - 6, 64741-96-4, 265-098-1, 64741-97-5, 265-155-0, 64742-52-5, 265-101-6, 64742-01-4, 265-156-6; 64742-53-6, 265-157-1, 64742-54-7, 265-158-7, 64742-55-8, 265-159-2, 64742-56-9, 265-160-8, 64742 - 57-0, 265-161-3, 64742-58-1, 265-166-0, 64742-62-7, 265-176-5, 64742-71-8, 276-736-3, 72623-85 - 9, 276-735-8, 72623-83-7, 276-737-9, CAS 72623-86-0, 276-738-4, 72623-87-1, 265-169-7, 64742-65-0; 278-012-2, 74869-22-0.

EXPOSURE CONTROLS	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³
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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Be sure to clean skin thoroughly after work and before breaks.
Do not inhale gases / fumes / aerosols.
Do not carry product impregnated cleaning cloths in trouser pockets.
In case of insufficient ventilation, wear suitable respiratory equipment.
Take off contaminated clothing.
- **Respiratory protection:**
Use suitable respiratory protective device in case of insufficient ventilation.
Filter A/P2
- **Protection of hands:**
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

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- **Material of gloves**

Nitrile rubber, NBR

PVC gloves

Chloroprene rubber, CR

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.

Recommended thickness of the material: ≥ 0.35 mm

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Value for the permeation: Level ≤ 8 h

- **Eye protection:** Wear eye/face protection.

- **Body protection:** Oil resistant protective clothing

SECTION 9: Physical and chemical properties

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

- **General Information**

- **Appearance:**

- **Form:**

Fluid

- **Colour:**

Amber coloured

- **Odour:**

Weak, characteristic

- **Odour threshold:**

Not determined.

- **pH-value:**

Not determined.

- **Change in condition**

- **Melting point/freezing point:**

-33 °C

- **Initial boiling point and boiling range:**

>280 °C

- **Flash point:**

215 °C

- **Flammability (solid, gas):**

Not applicable.

- **Decomposition temperature:**

Not determined.

- **Auto-ignition temperature:**

>320 °C

- **Explosive properties:**

Product does not present an explosion hazard.

- **Explosion limits:**

1-10 Vol % (Typical for mineral oils)

- **Lower:**

Not determined.

- **Upper:**

Not determined.

- **Vapour pressure:**

<0.5 Pa

- **Density at 20 °C:**

0.872 g/cm³at 15 °C: 0.855 g/cm³

- **Bulk density:**

855 kg/m³

- **Relative density**

Not determined.

- **Vapour density**

Not determined.

- **Evaporation rate**

Not determined.

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- | | |
|--|---|
| · Solubility in / Miscibility with water: | Insoluble. |
| · Partition coefficient: n-octanol/water: | >6 |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic at 40 °C: | 32 mm ² /s |
| | Viscosity at 100 °C: 5.5 cSt mm ² /s |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** Reacts with strong oxidising agents.
- **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**
Direct sun light.
Take action to prevent static discharges.
Keep away from sources of ignition - No smoking.
- **10.5 Incompatible materials:** Iron
- **10.6 Hazardous decomposition products:** No further information, refer to section 5.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity

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

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

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Prolonged and / or repeated skin contact combined with poor personal hygiene may cause inflammation of the skin in the form of dermatitis, eczema and oil acne.
Product in use under high pressure that has been forced under the skin, is a serious situation that requires IMMEDIATE hospital treatment.
- **Serious eye damage/irritation** Contact with eyes may result in mild irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Other information (about experimental toxicology):**
If the product is overheated, fumes and vapors may be irritating to the upper respiratory tract and lungs.
- **Acute effects (acute toxicity, irritation and corrosivity)**
Low acute toxicity, but aspiration following ingestion and vomiting may cause severe and potentially fatal chemical pneumonia.
- **Repeated dose toxicity** Repeated exposure may cause skin dryness or cracking.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Product contains mineral oils of types shown to be noncarcinogenic in animal skin-painting studies.
Highly refined mineral oils are not classified as carcinogenic by the International Agency for

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- Research on Cancer (IARC). Other components are not known to be associated with carcinogenic effects.
- **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.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**
May cause physical fouling of aquatic organisms.
Not harmful to aquatic organisms. Expected LC/EC 50 value: >100 mg/L.
- **12.2 Persistence and degradability** Not easily biodegradable
- **12.3 Bioaccumulative potential** Contain components with the potential to bioaccumulate.
- **12.4 Mobility in soil** Low solubility, product floats on water. Absorbs to soil particles.
- **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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects**
Spills may form a film on the water surface. This film may cause physical damage to aquatic organisms and reduce oxygen transfer.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must be specially treated adhering to official regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Hand over to hazardous waste disposers.

· European waste catalogue

13 00 00	OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19)
13 01 00	waste hydraulic oils
13 01 10*	mineral based non-chlorinated hydraulic oils
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues of or contaminated by dangerous substances

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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.

LIMITATION OF LIABILITY

This document is only intended to be used as guidance as regards the risks of which we are aware that are associated with the product. Every individual who works with the product or in close proximity of it must receive suitable training. Individuals who come into contact with the product must be capable of using their own judgement as regards conditions or methods for handling, storing and using the product. Alfa Laval is not liable for demands, losses or damage of any kind that arise from flaws or deficiencies in this document or from using, handling, storing or disposing of the product unless it can be proven that Alfa Laval has acted in a grossly negligent manner. Beyond what has been agreed upon and specified in writing with Alfa Laval in the individual case, Alfa Laval makes no promises or assumes any liability, including but not limited to implicit guarantees regarding marketability or appropriateness in terms of both the information provided in this document and the product to which the information refers.

Please contact your local Alfa Laval Sales Company for further questions:

www.alfalaval.com

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Abbreviations and acronyms:

ADR: Accord européen sur le transport 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
vPvB: very Persistent and very Bioaccumulative

* **Data compared to the previous version altered.**