



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

Printing date 04.06.2015

Version number 1

Revision: 04.06.2015

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

- **1.1 Product identifier**
- **Trade name: Lubricating Oil ISO VG 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
- **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:**
In the UK: 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 as hazardous to health or environment according to the CLP regulation.
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**
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 occur. It is possible that the wound at the injection site does not look so severe at first sight, but it is not treated it can lead to malformation or amputation of the affected limb.
Excessive exposure may cause eye, skin or respiratory irritation
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· **Description:** Mixture: consisting of the following components.

· **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 substance 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.

substance with a Community workplace exposure limit

· **Additional information:**

The substance is not needed to be classified as carcinogenic if it can be shown that the substance contains less than 3% DMSO-extract, measured according to IP-346. This note applies only to certain complex oil-derived substances in section 3.

For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· **General information:** No special measures required.

· **After inhalation:**

Supply fresh air; consult doctor if symptoms persists.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

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:**

No special measures are usually needed.

Call a POISON CENTER or doctor/physician if you feel unwell.

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

High pressure injection under skin: local necrosis.

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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.

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:**

Carbon dioxide

Foam

Fire-extinguishing powder

For safety reasons unsuitable extinguishing agents: Water with full jet**5.2 Special hazards arising from the substance or mixture**

H2S

Sulphur dioxide (SO₂)

Aldehyde

Carbon monoxide and carbon dioxide

5.3 Advice for firefighters**Protective equipment:**

In case of fire: Evacuate area.

Water can be insufficient for fighting fire but can be used to cool containers and surfaces.

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.

6.2 Environmental precautions:

Send for recovery or disposal in suitable receptacles.

Do not allow product to reach sewage system or any water course.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Confine spill immediately with booms. Warn other ships. Remove from surface by skimming or with suitable absorbents. Contact authorities before using dispersants.

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.

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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Use only non-sparking tools.
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).
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** 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

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Wash hands before breaks and at the end of work.
Use only in well-ventilated areas.
- **Respiratory protection:**
Not necessary if room is well-ventilated.
Use suitable respiratory protective device when high concentrations are present.
- **Protection of hands:** Not required.
- **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

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be checked prior to the application.

Nitrile rubber, NBR

• 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.

• Eye protection: If eye contact is likely, safety glasses with side shields are recommended.

SECTION 9: Physical and chemical properties

• 9.1 Information on basic physical and chemical properties**• General Information****• Appearance:**

Form:	Fluid
Colour:	Brown
• Odour:	Characteristic
• Odour threshold:	Not determined.

• pH-value: Not determined.**• Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

• Flash point: > 190 °C**• Flammability (solid, gaseous):** Not applicable.**• Ignition temperature:****Decomposition temperature:** Not determined.**• Self-igniting:** Product is not selfigniting.**• Danger of explosion:** Product does not present an explosion hazard.**• Explosion limits:**

Lower:	0.9 Vol %
Upper:	7.0 Vol %

• Vapour pressure: < 0,013 kPa (0,1 mm Hg) @ 20 °C

• Density:	Not determined.
• Relative density	0,88 @ 15 °C
• Vapour density	>2 @ 101 kPa (Luft = 1)
• Evaporation rate	Not determined.

• Solubility in / Miscibility with water: Slightly soluble.**• Partition coefficient (n-octanol/water):** >3.5 log POW**• Viscosity:****Dynamic:** Not determined.

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Kinematic at 40 °C:	46 mm ² /s
· Solvent content:	
Organic solvents:	0.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
Stable under normal temperature conditions and under recommended usage and storage.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid**
Keep ignition sources away - Do not smoke.
High heat
- **10.5 Incompatible materials:** Reacts with strong oxidising agents.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.
- **Additional toxicological information:**
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** The product is not expected to be harmful to aquatic organisms
- **12.2 Persistence and degradability** The product is not easily, but potentially biodegradable.
- **12.3 Bioaccumulative potential**
Contain components with the potential to bioaccumulate.
Contact your supplier for more information.
- **12.4 Mobility in soil** Low solubility, product floats on water. Absorbs to soil particles.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· 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

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-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 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

· **UN "Model Regulation":**

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SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulation (EC) no 1272/2008 (CLP)

EU Regulation (EC) no.1907/2006 (REACH)

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- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has 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.

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:

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- **Department issuing MSDS:** MACC -Materials & Chemistry Centre

- **Contact:**

Argentina: alfa.consulta@alfalaval.com
Australia: australia.info@alfalaval.com
Austria: info.mideurope@alfalaval.com
Belgium: benelux.info@alfalaval.com
Bolivia: alfa.consulta@alfalaval.com
Brazil: alfalaval.br@alfalaval.com
Bulgaria: bulgaria.info@alfalaval.com
Canada: alfacan.info@alfalaval.com
Chile: chile.informacion@alfalaval.com
China: china.info@alfalaval.com
Colombia: info.colombia@alfalaval.com
Croatia: hrvatska.info@alfalaval.com
Czech Republic: czechrepublic.info@alfalaval.com
Denmark: info.nordic.dk@alfalaval.com
Egypt: alme.marketing@alfalaval.com
Estonia: estonia.info@alfalaval.com
Finland: info.fi@alfalaval.com
France: environnement@alfalaval.com
Germany: info.mideurope@alfalaval.com
Greece: greece.info@alfalaval.com
Hungary: info.hu@alfalaval.com
India: india.info@alfalaval.com
Indonesia: alfalindo@alfalaval.com
Israel: israel.info@alfalaval.com
Italy: alfalaval.italia@alfalaval.com
Latvia: latvia.info@alfalaval.com
Lithuania: lithuania.info@alfalaval.com
Malaysia: malaysia.info@alfalaval.com

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Mexico: mexico.info@alfalaval.com
The Netherlands: benelux.info@alfalaval.com
New Zealand: newzealand.info@alfalaval.com
Norway: info.no@alfalaval.com
Peru: ventas.peru@alfalaval.com
Philippines: philippines.info@alfalaval.com
Poland: poland.info@alfalaval.com
Portugal: portugal.info@alfalaval.com
Qatar: alme.marketing@alfalaval.com
Romania: romania.info@alfalaval.com
Russia: moscow.response@alfalaval.com
Singapore: al.singapore@alfalaval.com
Slovak Republic: slovakia.info@alfalaval.com
Slovenia: slovenija.info@alfalaval.com
South Africa: info.sa@alfalaval.com
Spain: info.spain@alfalaval.com
Sweden: info.se@alfalaval.com
Switzerland: info.mideurope@alfalaval.com
Taiwan: taiwan.info@alfalaval.com
Thailand: thailand.info@alfalaval.com
Turkey: turkey@alfalaval.com
Ukraine: ukraine.info@alfalaval.com
United Arab Emirates: alme.marketing@alfalaval.com
United Kingdom: general.uk@alfalaval.com
United States: customerservice.usa@alfalaval.com
Venezuela: venezuela.info@alfalaval.com
Vietnam: vietnam.info@alfalaval.com

• 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)

• * Data compared to the previous version altered.