

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

Printing date 08.03.2022

Version number 3 (replaces version 2)

Revision: 08.03.2022

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

- **1.1 Product identifier**
- **Trade name:** Lubricating Oil ISO VG 46
- **Article number:** 901520380
- **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 Technologies AB
SE-221 00 Lund
Sweden
+46 46 36 65 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**
High pressure injection under skin: local necrosis.
Excessive exposure may cause eye, skin or respiratory irritation
- **Results of PBT and vPvB assessment**
- **PBT:** The product is not, nor contains, a substance that is, PBT.
- **vPvB:** The product is not, nor contains a substance that is, vPvB.

SECTION 3: Composition/information on ingredients

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

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· Dangerous components:

	Highly refined mineral oil (DMSO <3%, IP 346) substance with a Community workplace exposure limit	
CAS: 128-39-2 EINECS: 204-884-0	2,6-di-tert-butylphenol ----- Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315	0.1-<0.25%
CAS: 4259-15-8 EINECS: 224-235-5	Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) ----- Eye Dam. 1, H318; Aquatic Chronic 2, H411	0.25-<1%

· Additional information:

Based on actual concentration of the components, the product will not be classified.
For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

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

· **After skin contact:**

Wash with water and soap.

If skin irritation continues, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water and consult a doctor.

· **After swallowing:**

Rinse the mouth with water.

Do NOT induce vomiting.

Contact a doctor/physician.

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

High pressure injection under skin: local necrosis.

Slight eye irritation may occur upon contact with the eyes.

Prolonged and/or repeated skin contact may cause irritation.

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

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

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· **Suitable extinguishing agents:**

Carbon dioxide

Foam

Fire-extinguishing powder

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

Formation of toxic gases is possible during heating or in case of fire.

Sulphur dioxide (SO₂)

Aldehyde

Carbon monoxide and carbon dioxide

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- **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.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Particular danger of slipping on leaked/spilled product.
Ensure adequate ventilation
Do not breathe vapour.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Send for recovery or disposal in suitable receptacles.
- **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**
Prevent formation of aerosols.
Ensure adequate ventilation
Use non-sparking tools.
When using do not eat, drink or smoke.
- **Information about fire - and explosion protection:**
Material can accumulate static charges which may cause an electrical spark (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.
- **7.3 Specific end use(s)**
Hydraulic fluid
Professional use only.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

Highly refined mineral oil (DMSO <3%, IP 346)WEL Short-term value: 10 mg/m³

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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** Use only in well-ventilated areas.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
Take off contaminated clothing.
Wash hands before breaks and at the end of work.
Do not carry product impregnated cleaning cloths in trouser pockets.
- **Respiratory protection:**
Not necessary if room is well-ventilated.
Use suitable respiratory protective device when high concentrations are present.
- **Hand protection**
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**
Nitrile rubber, NBR
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.
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye/face protection** If eye contact is likely, safety glasses with side shields are recommended.
- **Body protection:** Wear protective clothing.
- **Environmental exposure controls**
Do not allow to enter sewers/ surface or ground water.
Send for recovery or disposal in suitable receptacles.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Colour:** Brown
- **Odour:** Characteristic
- **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:** 0.9 Vol % (Est)
- **Upper:** 7.0 Vol % (Est)
- **Flash point:** >212 °C (ASTM-92)
- **Auto-ignition temperature:** Product is not selfigniting.
- **Decomposition temperature:** Not determined.
- **pH** Not determined.
- **Viscosity:**
- **Kinematic viscosity at 40 °C** 46 mm²/s

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· Dynamic:	Not determined.
· Solubility	
· water:	Slightly soluble.
· Partition coefficient n-octanol/water (log value)	>3.5 log POW (Est)
· Vapour pressure:	< 0.013 kPa (0.1 mm Hg) @ 20 °C (estimated)
· Density and/or relative density	
· Density at 20 °C:	0.88 g/cm ³
· Relative density	0.88 @ 15 °C
· Vapour density	>2 @ 101 kPa (air = 1)

· 9.2 Other information	
· Appearance:	
· Form:	Liquid
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· Organic solvents:	0.0 %
· Change in condition	
· Drip point:	-18 °C
· Oxidising properties	Not applicable.
· 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
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **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.

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- **10.4 Conditions to avoid**
Keep away from ignition sources.
High temperature
- **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 hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation**
Prolonged and / or repeated skin contact may cause irritation.
Based on available data, the classification criteria are not met.
- **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.
- **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:**
- **Acute effects (acute toxicity, irritation and corrosivity)**
High pressure injection under skin: local necrosis.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties**
Endocrine disrupting properties from <https://edlists.org>

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential**
Due to the distribution coefficient n-octanol/water an accumulation in organisms is possible.
- **12.4 Mobility in soil**
Low solubility, product floats on water. Absorbs to soil particles.
The product is not expected to be mobile in soil.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** The product is not, nor contains, a substance that is, PBT.
- **vPvB:** The product is not, nor contains a substance that is, vPvB.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 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.

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SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

Hand over to hazardous waste disposers.

Delivery of waste oil to officially authorised collectors only.

- **yes European waste catalogue**

The European Waste Catalogue (EWC) waste codes do not refer to product but to origin. The manufacturer is therefore unable to quote a waste code for products which are used in various industries. Any codes shown should be regarded as a recommendation to the user.

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:**

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

- **14.1 UN number or ID number**

- **ADR, ADN, IMDG, IATA**

Not regulated

- **14.2 UN proper shipping name**

- **ADR, ADN, IMDG, IATA**

Not regulated

- **14.3 Transport hazard class(es)**

- **ADR, ADN, IMDG, IATA**

- **Class**

Not regulated

- **14.4 Packing group**

- **ADR, IMDG, IATA**

Not regulated

- **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":**

Not regulated

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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- **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.

- **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.

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

- **Relevant phrases**

H315 Causes skin irritation.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

- **Department issuing SDS:** Alfa Laval Corporate Standards & Regulatory Operations

- **Contact:**

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· 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· * Data compared to the previous version altered.

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