

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/10/2018

Version 6


Reviewed on 09/10/2018

1 Identification

- **Product identifier**
- **Trade name: Alfa Laval Lubricating Oil SHC 320**
- **Article number:** 558129-80
- **Application of the substance / the mixture** Lubricating oil
- **Details of the supplier of the safety data sheet**
- **Supplier:**
 Alfa Laval Tumba AB
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 S-147 80 Tumba
 Sweden
 +46 8 530 650 00
 info.se@alfalaval.com
 For additional questions regarding safety data sheets please contact your local Alfa Laval Sales Company which you find on www.alfalaval.com or in safety data sheet under section 16: Other Informaion
- **Information department:**
 For additional questions regarding safety data sheets please contact your local Alfa Laval Sales Company which you find on www.alfalaval.com or in safety data sheet under section 16: Other Informaion
- **Emergency telephone number:** US and Canada: 911

2 Hazard(s) identification

- **Classification of the substance or mixture**
 The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**

 Health = 0
 Fire = 1
 Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:**

CAS: 16958-92-2 Ditridecyl adipate	10-20% w/w
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	Highly refined mineral oil (DMSO <3%, IP 346)	
CAS: 10254-57-6	4,4'-methylene bis(dibutyldithiocarbamate)	15-25% w/w

Dangerous components: Void

4 First-aid measures

Description of first aid measures**General information:**

Immediately remove any clothing soiled by the product.

Wash contaminated clothing before reuse.

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

After inhalation: Supply fresh air; consult doctor in case of complaints.**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.

Information for doctor:**Most important symptoms and effects, both acute and delayed**

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

Extinguishing media**Suitable extinguishing agents:**

Foam

Fire-extinguishing powder

Carbon dioxide

Use fire fighting measures that suit the environment.

For safety reasons unsuitable extinguishing agents: Water with full jet**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

Aldehyde

Sulphur dioxide (SO₂)

Hydrocarbons

Advice for firefighters**Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

In case of fire: Evacuate area.

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- Collect contaminated fire fighting water separately. It must not enter the sewage system.
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Do not breathe vapour.

Particular danger of slipping on leaked/spilled product.

Avoid contact with spilled material.

See Section 8 for information on personal protection equipment.

- **Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

- **Methods and material for containment and cleaning up:**

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

Send for recovery or disposal in suitable receptacles.

Pick up mechanically.

Remove from the water surface (e.g. skim or suck off).

Use non-sparking tools.

- **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.

7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.

Avoid the formation of oil haze.

Avoid contact with skin and eyes.

See Section 8 for information on personal protection equipment.

- **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Use explosion-proof apparatus / fittings and spark-proof tools.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Store in a well-ventilated place. Keep container tightly closed.

Store in a cool location.

- **Information about storage in one common storage facility:** Store away from oxidizing agents.

- **Further information about storage conditions:**

Protect from heat and direct sunlight.

Protect from humidity and water.

- **Specific end use(s)**

Lubricating oil

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Professional use only.

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8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Use only in well-ventilated areas.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Do not eat, drink, smoke or sniff while working.
Do not carry product impregnated cleaning cloths in trouser pockets.
In case of insufficient ventilation, wear suitable respiratory equipment.
Take off contaminated clothing.
- **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.
- **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
- **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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Wear eye/face protection.
- **Body protection:**
Protective work clothing
Oil resistant protective clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Fluid
Color:	Yellowish
Odor:	Characteristic
Odor threshold:	Not determined.

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· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined. -33 °C
Boiling point/Boiling range:	>316 °C
· Flash point:	>210 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	>200 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C:	<0.1 hPa (0,1 mm Hg)
· Density at 20 °C:	0.86 g/cm ³
· Relative density	Not determined.
· Vapor density at 20 °C	>2 (101 kPa)
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	>3.5 log POW
· Viscosity:	
Dynamic:	Not determined.
Kinematic at 40 °C:	335 mm ² /s
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
Flammable vapor-air mixtures may develop if stored in large receptacles above room temperature.
Used empty containers may contain product gases which form explosive mixtures with air.
- **Conditions to avoid** Keep away from sources of ignition - No smoking.
- **Incompatible materials:** Reacts with strong oxidizing agents.
- **Hazardous decomposition products:**
Formation of toxic gases is possible during heating or in case of fire.
Carbon monoxide and carbon dioxide
Sulfur dioxide

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Aldehyde
Hydrocarbons

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11 Toxicological information

Irritation of skin | Skin corrosion/Irritation | (rabbit)

· **Information on toxicological effects**

· **Acute toxicity:**

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	Inhalation	>5,000 mg/m ³ (rat)
Irritation of eyes	Irritation/Corrosion	- (rabbit)

· **Primary irritant effect:**

· **on the skin:**

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.

· **on the eye:** Contact with eyes may result in mild irritation.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Contains: Synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitising in test animals and humans. Aryl thiophosphate: Effects on the liver, adrenals, thyroid, blood and reproductive organs were seen in rats after repeated oral gavage at high doses. In a reproduction/developmental toxicity screening study, repeated oral gavage of rats with the aryl thiophosphate at high doses that produced maternal toxicity resulted in litter loss, decreased number of implantation sites and decreased number of live pups. However, when the aryl thiophosphate was tested in a subsequent, identical reproduction/developmental screening study in rats at a concentration higher than in this lubricant product, there were no reproductive/developmental effects or maternal toxicity.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

LC50 | >1,000 mg/L (No information available) (No information available)

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

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- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** Low solubility, product floats on water. Absorbs to soil particles.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **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.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Must be specially treated adhering to official regulations.
Hand over to hazardous waste disposers.
- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | Void |
| · DOT, TDG, ADN, IMDG, IATA | Void |
| · UN proper shipping name | Void |
| · DOT, TDG, ADN, IMDG, IATA | Void |
| · Transport hazard class(es) | Void |
| · DOT, TDG, ADN, IMDG, IATA | Void |
| · Class | Void |
| · Packing group | Void |
| · DOT, TDG, IMDG, IATA | Void |
| · Environmental hazards: | No |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

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· UN "Model Regulation":	Void
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15 Regulatory information

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

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

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

EC DIRECTIVE 2008/98/EC (waste)

· **Sara**

· Section 355 (extremely hazardous substances):
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None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):
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None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

CAS: 16958-92-2 | Ditridecyl adipate

· **Canadian substance listings:**

· Canadian Domestic Substances List (DSL)
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CAS: 16958-92-2 | Ditridecyl adipate

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

None of the ingredients is listed.

· **GHS label elements** Void· **Hazard pictograms** Void· **Signal word** Void· **Hazard statements** Void· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

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

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Contact:

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United States: customerservice.usa@alfalaval.com

Venezuela: venezuela.info@alfalaval.com

Vietnam: vietnam.info@alfalaval.com

· **Date of the latest revision of the safety data sheet 09/10/2018 / 5**

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

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