



Safety Data Sheet

acc. to OSHA HCS

Printing date 05/09/2018

Version 11

Reviewed on 05/09/2018

1 Identification

- **Product identifier**
- **Trade name:** Lubricating Oil ISO VG 220
- **Article number:** 542690-80, 542690-81, 542690-83
- **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

Contact details for all countries are continually updated on our website.
Please visit www.alfalaval.com to access the information.
The latest version of Alfa Laval's SDS is available on our website.

- **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 Information
- **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
- **Other hazards**
- **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.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

| | | |
|--|----------------------------|--------|
| CAS: 128-37-0 Reg.nr.: 01-2119565113-46 | 2,6-di-tert-butyl-p-cresol | 0.1-1% |
|--|----------------------------|--------|

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4 First-aid measures

- **Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

Wash contaminated clothing before reuse.

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

- **After skin contact:**

Take off immediately all contaminated clothing.

Wash with water and soap.

If skin irritation continues, consult a doctor.

- **After eye contact:**

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

- **After swallowing:**

Wash the mouth with water.

Do NOT induce vomiting.

May cause aspiration when swallowing.

Contact a 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.

CO₂

Carbon monoxide (CO)

Aldehyde

Hydrocarbons

- **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.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

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6 Accidental release measures

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

Do not breathe vapour.

Wear protective equipment. Keep unprotected persons away.

Particular danger of slipping on leaked/spilled product.

- **Environmental precautions:**

Avoid release to the environment.

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

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

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

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

Dispose of the collected material according to regulations.

- **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**

Ensure good ventilation/exhaustion at the workplace.

Avoid the formation of oil haze.

Avoid contact with skin and eyes.

When using do not eat, drink or smoke.

The usual precautionary measures for handling chemicals should be followed.

See Section 8 for information on personal protection equipment.

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

Keep ignition sources away - Do not smoke.

- **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 dry place.

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

- **Further information about storage conditions:** Protect from humidity and water.

- **Specific end use(s)**

Lubricating oil

Professional use only.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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- **Control parameters**

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

CAS: 128-37-0 2,6-di-tert-butyl-p-cresol
REL Long-term value: 10 mg/m³TLV Long-term value: 2* mg/m³
*as inhalable fraction and vapor

- **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.

The usual precautionary measures for handling chemicals should be followed.

- **Breathing equipment:**

Not necessary if room is well-ventilated.

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.

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:** Wear eye/face protection.

- **Body protection:** Working clothes

9 Physical and chemical properties

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

- **General Information**

Appearance:

Clear

· **Form:**

Liquid

· **Color:**

Colorless

· **Odor:**

Weak, characteristic

· **Odor threshold:**

Not determined.

· **pH-value:**

Not determined.

- **Change in condition**

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

Undetermined.

· **Flash point:**

250 °C (482 °F)

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| | |
|---|---|
| · Flammability (solid, gaseous): | Not applicable. |
| · 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: | < 0.01 kPa |
| · Density at 20 °C (68 °F): | 0,857 g/cm ³ (7.15167 lbs/gal) |
| · Relative density | Not determined. |
| · Vapor density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with Water: | Insoluble. |
| · Partition coefficient (n-octanol/water): | >3 |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | 25 mm ² /s |
| · Solvent content: | |
| Organic solvents: | 0,0 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** The material is stable under recommended storage and handling conditions.
- **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.
To avoid thermal decomposition do not overheat.
Formation of toxic gases is possible during heating or in case of fire.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**
Keep away from sources of ignition - No smoking.
High temperature
- **Incompatible materials:** Store away from oxidizing agents.
- **Hazardous decomposition products:**
Danger of toxic pyrolysis products.
No further information, refer to section 5.

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|---|

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11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

| |
|---|
| CAS: 128-37-0 2,6-di-tert-butyl-p-cresol |
|---|

| |
|-------------------------------|
| Oral LD50 890 mg/kg (rat) |
|-------------------------------|

- **Primary irritant effect:**

- **on the skin:**

Prolonged and / or repeated skin contact may cause 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.

- **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.

- **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. |
|------------------------------------|

- **OSHA-Ca (Occupational Safety & Health Administration)**

| |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

| |
|---|
| CAS: 128-37-0 2,6-di-tert-butyl-p-cresol |
|---|

| | |
|------|---------------|
| LC50 | 5 mg/L (Fish) |
|------|---------------|

| | |
|------|-------------------|
| EC50 | 0.42 mg/L (Algae) |
|------|-------------------|

| | |
|--|---------------------|
| | 6 mg/L (Microalgae) |
|--|---------------------|

- **Persistence and degradability** The product is not easily, but potentially biodegradable.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** Contain components with the potential to bioaccumulate.

- **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:** The product is not, nor contains, a substance that is PBT

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- **vPvB:** The product is not, nor contains, a substance that is vPvB.
- **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 | |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name | |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · Transport hazard class(es) | |
| · DOT, ADR, ADN, IMDG, IATA | |
| · Class | Void |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | Void |
| · Environmental hazards: | |
| · 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. |
| · UN "Model Regulation": | Void |

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)

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TSCA (Toxic Substance Control Act) - All chemical components in this material are included in, or are exceptions from the TSCA listing.

KECL - FULFILS

AICS - FULFILS

DSL/NDSL - FULFILS

PICCS - FULFILS

ENCS - FULFILS

IECSC - FULFULS

• **Sara**

• **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

• **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

• **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

• **Proposition 65**

• **Chemicals known to cause cancer:**

None of the ingredients is listed.

• **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

• **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

• **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

• **Carcinogenic categories**

• **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

• **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

• **NIOSH-Ca (National Institute for Occupational Safety and Health)**

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

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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

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

• **Contact:**

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• **Date of preparation / last revision** 05/09/2018 / 10

• **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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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

US