



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

Printing date 22.10.2013

Version number 4

Revision: 22.10.2013

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

- **1.1 Product identifier**
  - **Trade name: Castrol Perfecto T 46**
  - **Article number:** 115110315
  - **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
  - **Application of the substance / the preparation** Turbine oil
  - **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**  
Alfa Laval Tumba AB  
Hans Stahles väg 7  
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](http://www.alfalaval.com) to access the information.  
The latest version of Alfa Laval's SDS is available on our website.
  - **Further information obtainable from:** [sds.question@alfalaval.com](mailto:sds.question@alfalaval.com)
  - **1.4 Emergency telephone number:**  
For immediate, life-threatening emergencies, call 999
- For health advice and information (24h) dial 111 (NHS direct)

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
  - **Information concerning particular hazards for human and environment:**  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
  - **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
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- **2.2 Label elements**
  - **Labelling according to EU guidelines:**  
The product has been marked in accordance with EU Directives / respective national laws.  
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
  - **Special labelling of certain preparations:**  
Safety data sheet available for professional user on request.
  - **2.3 Other hazards**
  - **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.

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### SECTION 3: Composition/information on ingredients

#### · 3.2 Mixtures

##### · Description:

Mineral oil (DMSO <3%, IP 346) (Not classified as carcinogenic by Note L of the EU Directive 1999:3 when the substances contains <3% DMSO extract, IP 346).	≥ 90%
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· **Dangerous components:** Void· **Additional information:** 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:

Immediately remove any clothing soiled by the product.

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 in case of complaints.

##### · After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If symptoms persist consult 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:

Flush the eye (hold eyelids apart) for 10 minutes with water. Remove any contact lenses. Continue rinsing.

If symptoms persist consult doctor.

##### · After swallowing:

Rinse out mouth and then drink plenty of water.

Do NOT induce vomiting.

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

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

Gastric or intestinal disorders

Nausea

Cough

High pressure injection under skin: local necrosis.

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

A high-pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

### SECTION 5: Firefighting measures

**5.1 Extinguishing media****Suitable extinguishing agents:**

Foam

Carbon dioxide

Water haze

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**

During heating or in case of fire poisonous gases are produced.

Carbon monoxide and carbon dioxide

Irritating organic vapors

**5.3 Advice for firefighters****Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

### SECTION 6: Accidental release measures

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

Do not breathe vapour.

Particular danger of slipping on leaked/spilled product.

Wear protective equipment. Keep unprotected persons away.

Avoid contact with spilled material.

**6.2 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.

**6.3 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.

**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**

Do not breathe vapour.

Avoid contact with skin and eyes.

When using do not eat, drink or smoke.

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- See Section 8 for information on personal protection equipment.
- **Information about fire - and explosion protection:** No special measures required.
- **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 oxidizing agents.
- **Further information about storage conditions:**  
Protect from heat and direct sunlight.  
Store receptacle in a well ventilated area.
- **7.3 Specific end use(s)**  
Turbine oil  
Restricted to professional users.

### 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:**

**64742-65-0 Distillates (petroleum), solvent-dewaxed heavy paraffinic**

CONTROL PARAMETERS	Long-term value: 1 mg/m <sup>3</sup> Oil mist, metal working fluids, Ref: GESTIS UK.
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- **PNECs**  
64742-65-0 Distillates (petroleum), solvent-dewaxed heavy paraffinic: Hazard for predators: Secondary poisoning (oral): 9,33 mg/kg food, Hazard assessment conclusion: PNEC.
- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Use only in well-ventilated areas.  
Wash hands before breaks and at the end of work.  
Ensure that washing facilities are available at the work place.  
Avoid contact with the eyes and skin.  
Do not carry product impregnated cleaning cloths in trouser pockets.  
Take off contaminated clothing and wash before reuse.  
Keep away from foodstuffs, beverages and feed.

- **Respiratory protection:** 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**

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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:**



Safety glasses

- **Body protection:**

Protective work clothing

When the risk of skin exposure is high (e.g. when cleaning up spillages or it there is risk of splashing):

Impervious protective clothing

Apron

### SECTION 9: Physical and chemical properties

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

- **General Information**

- **Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Amber coloured
· <b>Odour:</b>	Weak, characteristic
· <b>Odour threshold:</b>	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.

- **Flash point:** > 180 °C

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:**

<b>Decomposition temperature:</b>	Not determined.
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- **Self-igniting:** >250 °C

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

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· <b>Vapour pressure:</b>	Not determined.
· <b>Density at 20 °C:</b>	<1000 kg/m <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Insoluble. Soluble in organic solvents
· <b>Partition coefficient (n-octanol/water):</b>	<3 log POW
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic at 40 °C:</b>	46 mm <sup>2</sup> /s
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** The material is stable under recommended storage and handling conditions.
- **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 oxidizing agents.
- **10.4 Conditions to avoid** Keep away from sources of ignition - No smoking.
- **10.5 Incompatible materials:** Store away from oxidizing agents.
- **10.6 Hazardous decomposition products:** No further information, refer to section 5.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**

- **Acute toxicity:**

**64742-65-0 Distillates (petroleum), solvent-dewaxed heavy paraffinic**

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	LC50/4 h	5.53 mg/l (rat) (4 h, male and female)

- **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.

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- **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 the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
- **Acute effects (acute toxicity, irritation and corrosivity)**  
Ingestion of large amounts can cause nausea and diarrhea.  
Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.
- **CMR effects (carcinogenity, 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 Research on Cancer (IARC). Other components are not known to be associated with carcinogenic effects.

### 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**  
The product is not expected to bioconcentrate significantly in organisms.
- **12.4 Mobility in soil**  
Low mobility in soil. Some components may penetrate the soil and contaminate groundwater.
- **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 not be disposed together with household garbage. Do not allow product to reach sewage system.
- **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)
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13 02 00	waste engine, gear and lubricating oils
13 02 05*	mineral-based non-chlorinated engine, gear and lubricating oils

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

### SECTION 15: Regulatory information

- **15.1 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)
- **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

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- **Department issuing MSDS:** MACC -Materials & Chemistry Centre
- **\* Data compared to the previous version altered.**

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