

## 1. Identification of the substance/preparation and of the company

**Identification of the substance or preparation:** SOLAR N  
**Type of product and use:** Antifreeze  
**Supplier:** Petrol d.d.  
Dunajska cesta 50  
1527 LJUBLJANA, SLO  
tel. 00 386 1 / 47 14 232  
**Manufacturer:** Petrol d.d.  
**Emergency telephone number:**

## 2. Composition/information on ingredients

**Components:** propane-1,2-diol; inhibitors

## 3. Hazards identification

No particular hazards known.

## 4. First-aid measures

**General advice:** Remove contaminated clothing.  
**If inhaled:** If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.  
**On skin contact:** Wash thoroughly with soap and water  
**On contact with eyes:** Wash affected eyes for at least 15 minutes under running water with eyelids held open.  
**On ingestion:** Rinse mouth and then drink plenty of water.  
**Note to physician:** Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

## 5. Fire-fighting measures

**Suitable extinguishing media:** Water spray, dry extinguishing media, alcohol-resistant foam, carbon dioxide.  
**Specific hazards:** Harmful vapours. Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.  
**Special protective equipment:** Wear a self-contained breathing apparatus.  
**Further information:** The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

## 6. Accidental release measures

**Personal precautions:** Use personal protective clothing.  
**Environmental precautions:** Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.  
**Methods for cleaning up or taking up:**  
**For large amounts:** Pump off product.  
**For residues:** Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

**7. Handling and storage**

**Handling** Protection against fire and explosion:  
Take precautionary measures against static discharges.

**Storage** Containers should be stored tightly sealed in a dry place. Storage in galvanized containers is not recommended.

**8. Exposure controls/personal protection**

**Personal protective equipment**

**Respiratory protection:** Suitable respiratory protection for higher concentrations or long-term effect: Gas filter EN141 Type A for gases/vapours of organic compounds (boiling point >65 °C).

**Hand protection:** Chemical resistant protective gloves (EN 374). Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):  
fluoroelastomer (FKM) - 0.7 mm coating thickness  
Polyethylene-Laminate (PE laminate) - ca. 0.1 mm coating thickness  
Suitable materials short-term contact and/or splashes (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN 374):  
nitrile rubber (NBR) - 0.4 mm coating thickness  
Manufacturer's directions for use should be observed because of great diversity of types.

**Eye protection:** Safety glasses with side-shields (frame goggles) (EN 166).

**General measures:** Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties (typical values)**

**Form:** liquid

**Colour:** according to specification

**Odour:** almost odourless

**Flash point:** > 100 °C (DIN 51758)

**Boiling temperature:** > 150 °C (ASTM D1120)

**Relative density:** 1,06 g/cm<sup>3</sup> (20 °C)

**Viscosity, kinematic** 20 mm<sup>2</sup>/s (40°C)

**pH value:** 6,5 - 8,5 (500 g/l, 20 °C) (ASTM D1287)

**Solidification temperature:** < -50 °C (DIN 51583)

**Vapour pressure (kPa/20° C):** 0,2

**Explosion limits:** Lower explosion limit: 2,6 %(V)  
Upper explosion limit: 12,6 %(V)

**Ignition temperature:** > 200 °C (DIN 51794)

**Solubility in water:** fully soluble

**Solubility in polar solvents:** soluble

**10. Stability and reactivity**

**Substances to avoid:** strong oxidizing agents

**Hazardous reactions:** No hazardous reactions if stored and handled as prescribed/indicated.

**Hazardous decomposition products:** No hazardous decomposition products if stored and handled as prescribed/indicated.

**11. Toxicological information**

LD50/oral/rat: > 2.000 mg/kg  
Primary skin irritation/rabbit: non-irritant

Primary skin irritation/rabbit: non-irritant (OECD Guideline 404)  
Primary irritations of the mucous membrane/rabbit: non-irritant (OECD Guideline 405)  
**Additional information:** The product has not been tested. The statement has been derived from the properties of the individual components.

## 12. Ecological information

### Ecotoxicity

**Toxicity to fish:** Oncorhynchus mykiss/LC50 (96 h): > 100 mg/l

**Aquatic invertebrates:** EC50 (48 h): > 100 mg/l

**Aquatic plants:** EC50 (72 h): > 100 mg/l

### Microorganisms/Effect

**on activated sludge:** DEV-L2 > 1.000 mg/l

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

### Assessment of aquatic

#### toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

### Persistence and degradability

**Elimination information:** Test method: OECD 301 A (new version) Method of analysis: DOC reduction

Degree of elimination: > 70 %

Evaluation: Readily biodegradable.

### Other ecotoxicological

#### advice:

Do not release untreated into natural waters.

## 13. Disposal considerations

Must be dumped or incinerated in accordance with local regulations.

**Waste key:** 170404 zinc

**Contaminated packaging:** Uncontaminated packs can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

## 14. Transport information

Not classified as hazardous under transport regulations (ADR, RID, ADNR, IMDG/GGVSee, ICAO/IATA)

## 15. Regulatory information

Not subject to labelling

## 16. Other information

**General indications:** None

**Other uses of the product:** Do not use product for any purposes that have not been advised by the manufacturer. In this case, the user could be exposed to unforeseeable dangers.

**Document references:** This safety Data Sheets conforms to the dispositions of Directive 2001/58/CE

**Nature of revision:**

This information relates only to the specific product and may not be valid if the product is used in combination with any other material or in any process.

The information in this sheet is according to our best knowledge at the date of printing.

**Sektor KOV-SRO**