

SAFETY DATA SHEET

According to Regulation (EC) N° 1907/2006 (REACH)

1. Substance/preparation and company name.

Trade Name Solar Protect

Typical Applications Multi-metal anti-corrosion additive for closed cooling circuit.

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2. Hazard identification.

Classification of the substance or mixture.

Label elements.

Label according to Regulation (CE)N° 1272/2008 [CLP]

The product is not subject to labeling.

Other hazards.

Unknown.

3. Composition/Information on ingredients.

High-boiling-point glycols with corrosion inhibitors.

Chemical name	CAS-No	EC number	%	Pict.	Phrases
Potassium Salt	64665-53-8	265-002-8	<2%	GHS06	H301; H319
Methyl Benzotriazole					H332; H412

4. First aid measures.

General advice	Remove contaminated clothing.
On contact with eyes	Wash affected eyes for at least 15 minutes under running water with eyelids held open.
On skin contact	Wash thoroughly with soap and water.
If inhaled	If difficulties occur after mist/aerosol has been inhaled remove to fresh air and seek medical attention.
On ingestion	Rinse mouth and then drink water (two glasses at the most). Consult doctor if feeling unwell.
Note to physician	Symptomatic treatment (decontamination, vital functions), no known specific antidote.

5. Fire fighting measures.

Suitable extinguishing media:	Water spray, alcohol resistant foam, dry extinguishers, carbon dioxide (CO ₂)
Specific hazards	Evolution of fumes/fog. Vapours heavier than air.
Special protective equipment	In case of fire, wear a self contained breathing apparatus.
Further information	Contaminated extinguishing water must be disposed according to official regulations.

6. Accidental release measures.

Personal precautions	Use personal protective clothing. Do not inhale vapours/aerosol.
Environmental precautions	Do not discharge into drains, surface waters, ground water.
Methods for cleaning up/taking up	<u>Large amount:</u> Pump off products. <u>Residues/spills:</u> Bind the liquid by using a suitable absorbent material and dispose it according to the regulations

7. Handling and storage.

Handling	Ensure thorough ventilation of stores and working areas.
Protection against fire and explosion	Take precautionary measures against static discharges. If exposed to fire, keep containers cool by spraying with water.
Storage	Containers should be stored tightly sealed in dry place. Since zinc is not compatible with ethylene glycol, storage in galvanized containers is not recommended.

8. Exposure controls and personal protection.

Hygiene measures:

Wash hands and forearms after handling.

Do not smoke, eat or drink during manipulations.

General safety measures:

Respiratory protection:

Only in case of release of fumes/fog. Well ventilated areas are recommended for manipulation.

Required when vapours/aerosols are generated. Filter A-(P2)

Hands:

Chemical resistant protective gloves are recommended.

Eyes:

Safety glasses with side-shields.

DNEL/DMEL Values

<u>Exposition way</u>	<u>Group of persons</u>	<u>Exposition time/Effect</u>	<u>Value</u>
Skin	Workers	Long / Systematic effects	mg/Kg day
Inhalation	Workers	Long / Local effects	mg/m ³
Skin	Consumers	Long / Systematic effects	mg/ Kg day
Inhalation	Consumers	Long / Local effects	mg/m ³

PNEC Values:

<u>Fresh water:</u>	mg/l
<u>Sea water:</u>	mg/l
<u>Water (intermittent Releases):</u>	mg/l
<u>Fresh water -Sediment:</u>	mg/Kg dry
<u>Sea-Sediment</u>	--,-- mg/kg dry
<u>Soil:</u>	mg/kg dry
<u>Sewage treatment plant:</u>	mg/l

9. Physical and Chemical properties.

Physical state	Liquid
Color	Green
Odor	Weak, characteristic
pH	8-9
Boiling point/range	ca.101°C
Solidification temperature	ca. 0°C
Vapor pressure at 20°C	0.1 mbar at 20°C
Flash point	>100°C
Ignition temperature	>200°C
Density	1.04-1.05 g/cc at 20°C
Solubility in water	Unlimited
Solubility in other solvents	Soluble in polar solvents

10. Stability and reactivity.

Hazardous reactions	No hazardous reactions if stored and handle as prescribed.
Substances to avoid	Powerful oxidizing agents and strong acids. Galvanized and zinc containers.
Hazardous decomposition products	No hazardous decomposition products if stored and handle as prescribed.

11. Toxicological data.

Acute Toxicity:

DL50 (Ingestion, Rat): mg/Kg. (IUCLID)

Specific symptoms with animal studies:

Chronic toxicity:

12. Ecological data.

Ecological Toxicity

Acute Toxicity fishes:

Invertebrates:

Algae:

Microorganisms:

Sedimentary Organisms

The inhibition of the active sludge is not expected, when the substance is given in small quantities.

Comments for aquatic toxicity

The product has not been studied. The results are based on the individual properties of the substances.

Persistence and degradability

Biodegradation 95%/14 days (OCDE 302 B): biologically easy degradable.

Additional Information Do not release into natural waters.

13. Disposal considerations

Contaminated packaging Uncontaminated canisters can be re-used.
Cannisters 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 ICIAO/IATA)

15. Regulatory information

Regulations of the European Union (labeling) / National legislation / Regulations:

Hazard symbol

H-phrases:

P-phrases:

16. Further information.

H statements:

Health hazards:

H301: Toxic if swallowed.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H412: Harmful to aquatic life with long-lasting effects.

Abbreviations and acronyms:

PNEC: Predicted No Effect Concentration.

Intermittent Release: Intermittent but only recurring infrequently i.e. less than once per month and for no more than 24 hours.

This safety data sheet is intended to provide information and recommendations as to: 1. how to handle chemical substances and preparations in accordance with the essential requirements of safety precautions and physical, toxicological and ecological data. 2. How to handle, store, use and transport them safely.

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