

Antifrogen SOLAR

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Substance key: 000000636347

Revision Date: 13.06.2019

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

1.1. Product identifier

Trade name

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Material number: 297523

Chemical nature: monopropylene glycol (1,2-propandiol) with corrosion inhibitors

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture

Industry sector : Functional Fluids

Type of use : Heat transfer fluids

1.3. Details of the supplier of the safety data sheet

Identification of the company

Clariant Produkte (Deutschland) GmbH

65926 Frankfurt am Main

Telephone no. : +49 69 305 18000

Information about the substance/mixture

BU Industrial & Consumer Specialties

Product Stewardship

e-mail: SDS.Europe@clariant.com

1.4. Emergency telephone number

00800-5121 5121 (24 h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

According to the present state of knowledge provided this product is handled correctly, there is no danger to humans or the environment

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Remarks : No hazardous ingredients

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Remove/Take off immediately all contaminated clothing.
Get medical advice/ attention if you feel unwell.
- If inhaled : If inhaled, remove to fresh air.
Get medical advice/ attention.
- In case of skin contact : In case of contact, immediately flush skin with soap and plenty
of water.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty
of water and seek medical advice.
- If swallowed : If swallowed do not induce vomiting, seek medical advice and
show safety datasheet or label

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No symptoms known currently.
- Risks : No hazards known at this time.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water spray jet
Alcohol-resistant foam
Dry powder
Carbon dioxide (CO₂)
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

- Specific hazards during : In case of fires, hazardous combustion gases are formed:

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frozen due to the effects of cold, allow to thaw slowly at room temperature. Stir briefly before use.

7.3 Specific end use(s)

Specific use(s) : No further recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Propylene Glycol CAS-No.: 57-55-6	Workers	Inhalation	Long-term systemic effects	168 mg/m3
Remarks:	DNEL			
	Workers	Inhalation	Long-term local effects	10 mg/m3
Remarks:	DNEL			
	Consumers	Inhalation	Long-term systemic effects	50 mg/m3
Remarks:	DNEL			
	Consumers	Inhalation	Long-term local effects	10 mg/m3
Remarks:	DNEL			

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Propylene Glycol CAS-No.: 57-55-6	Fresh water	260 mg/l
	Marine water	26 mg/l
	Intermittent use/release	183 mg/l
	Sewage treatment plant	20000 mg/l
	Fresh water sediment	572 mg/kg dry weight (d.w.)
	Marine sediment	57,2 mg/kg dry weight (d.w.)
	Soil	50 mg/kg dry weight (d.w.)

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses

Hand protection

Break through time : 480 min

Glove thickness : 0,7 mm

Remarks : Long-term exposure Impervious butyl rubber gloves

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- Break through time : 30 min
Glove thickness : 0,4 mm
Remarks : For short-term exposure (splash protection): Nitrile rubber gloves.
- Remarks : These types of protective gloves are offered by various manufacturers. Please note the manufacturers' detailed statements, especially about the minimum thickness and the minimum breakthrough time. Consider also the particular working conditions under which the gloves are being used.
- Skin and body protection : Wear suitable protective equipment.
- Protective measures : Observe the usual precautions for handling chemicals. Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : Liquid
- Colour : red
- Odour : characteristic
- Odour Threshold : not tested.
- pH : ca. 9 (20 °C)
Method: DIN 19268
- Solidification point : ca. -28 °C
Method: DIN 51583
- Boiling point : ca. 106 °C
Method: ASTM D 1120
- Flash point : Method: ASTM D6450 (closed cup)
No flash point - Measure made up to the boiling point.
- Evaporation rate : not tested.
- Flammability (solid, gas) : Not applicable
- Burning number : Not applicable
- Upper explosion limit / upper flammability limit : not tested.
- Lower explosion limit / Lower flammability limit : not tested.
- Vapour pressure : < 0,01 kPa
Method: calculated

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Relative vapour density	:	not tested.
Density	:	ca. 1,038 g/cm ³ (20 °C) Method: DIN 51757
Bulk density	:	Not applicable
Solubility(ies)	:	
Water solubility	:	miscible
Solubility in other solvents	:	not tested. Solvent: fat
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	not tested.
Decomposition temperature	:	Method: DSC No decomposition up to 200 °C. Measurement under nitrogen
Viscosity	:	
Viscosity, dynamic	:	ca. 6,5 mPa.s Method: calculated
Viscosity, kinematic	:	ca. 6,3 mm ² /s Method: DIN 51562
Explosive properties	:	no data available
Oxidizing properties	:	Not applicable

9.2 Other information

Surface tension	:	Not applicable
Metal corrosion rate	:	Not corrosive to metals
Minimum ignition energy	:	not tested.
Particle size	:	Not applicable
Self-ignition	:	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

See section 10.3. "Possibility of hazardous reactions"

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10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition products

When handled and stored appropriately, no dangerous decomposition products are known

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Remarks: not tested.

Acute dermal toxicity : Remarks: not tested.

Skin corrosion/irritation

Product:

Remarks : not tested.

Serious eye damage/eye irritation

Product:

Remarks : not tested.

Respiratory or skin sensitisation

Product:

Remarks : not tested.

Germ cell mutagenicity

Product:

Germ cell mutagenicity-
Assessment : No information available.

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Carcinogenicity

Product:

Carcinogenicity - Assessment : No information available.

Reproductive toxicity

Product:

Reproductive toxicity - Assessment : No information available.

No information available.

STOT - single exposure

Product:

Remarks : not tested.

STOT - repeated exposure

Product:

Remarks : not tested.

Repeated dose toxicity

Product:

Remarks : not tested.

Further information

Product:

Remarks : The product has not been tested. The information is derived from the properties of the individual components.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: not tested.

Toxicity to daphnia and other aquatic invertebrates : Remarks: not tested.

Toxicity to algae/aquatic plants : Remarks: not tested.

Toxicity to microorganisms : Remarks: not tested.

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12.2 Persistence and degradability

Product:

Biodegradability : Remarks: Not applicable

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Not applicable

12.4 Mobility in soil

Product:

Distribution among environmental compartments : Remarks: not tested.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

Environmental fate and pathways : no data available

Additional ecological information : The product has not been tested. The information is derived from the properties of the individual components.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Product should be taken to a suitable and authorized waste disposal site in accordance with relevant regulations and if necessary after consultation with the waste disposal operator and/or the competent Authorities

Contaminated packaging : Packaging that cannot be cleaned should be disposed of as product waste

SECTION 14: Transport information

Section 14.1. to 14.5.

ADR not restricted
ADN not restricted

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RID	not restricted
IATA	not restricted
IMDG	not restricted

14.6. Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code (International Bulk Chemicals Code)

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Other regulations:

Apart from the data/regulations specified in this chapter, no further information is available concerning safety, health and environmental protection.

15.2 Chemical safety assessment

No Chemical Safety Assessment (CSA) is yet available for the substance, or for the component substances, contained in this product.

SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances

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(Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information : Observe national and local legal requirements

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