

**ANTIFROGEN L**

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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: 107600

Chemical nature: Propane-1,2-diol (CASRN 57-55-6) 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 : Brine for refrigeration

**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)

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**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**

**Hazardous components**

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Remarks : No dangerous ingredients according to Regulation (EC) No. 1907/2006

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**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

General advice : Remove/Take off immediately all contaminated clothing.  
Move the victim to fresh air.

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 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 : Get medical attention immediately.

**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.

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**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

Suitable extinguishing media : Water spray jet  
Alcohol-resistant foam  
Dry powder

**5.2 Special hazards arising from the substance or mixture**

Specific hazards during firefighting : In case of fires, hazardous combustion gases are formed:  
Carbon monoxide (CO)  
Nitrogen oxides (NOx)

**5.3 Advice for firefighters**

Special protective equipment for firefighters : Self-contained breathing apparatus

Further information : Wear suitable protective equipment.

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**SECTION 6: Accidental release measures**

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

Personal precautions : Wear suitable protective equipment.

**6.2 Environmental precautions**

Environmental precautions : Do not allow to enter drains or waterways

**6.3 Methods and material for containment and cleaning up**

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Can be landfilled or incinerated, when in compliance with local regulations.

**6.4 Reference to other sections**

Information regarding Safe handling, see chapter 7., For personal protection see section 8., For disposal considerations see section 13.

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**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

Advice on safe handling : No special measures necessary if stored and handled as prescribed.

Advice on protection against fire and explosion : Observe the general rules of industrial fire protection

Hygiene measures : Keep away from food and drink.

**7.2 Conditions for safe storage, including any incompatibilities**

Advice on common storage : Keep away from oxidizing agents.  
Do not store with strong alkalies.

**7.3 Specific end use(s)**

Specific use(s) : No further recommendations.

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**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
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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			
	Consumers	Skin contact	Long-term systemic effects	213 mg/m3
	Consumers	Ingestion	Long-term systemic effects	85 mg/m3

**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
	Water (intermittent 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

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.

Respiratory protection : Use respiratory protection in case of insufficient exhaust ventilation or prolonged exposure

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Full mask to standard DIN EN 136  
Filter A (organic gases and vapours) to standard DIN EN 141  
The use of filter apparatus presupposes that the environment atmosphere contains at least 17% oxygen by volume, and does not exceed the maximum gas concentration, usually 0.5% by volume. Relevant guidelines to be considered include EN 136/141/143/371/372 as well as other national regulations.

Protective measures : Do not inhale vapours

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**SECTION 9: Physical and chemical properties**

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

Appearance : Liquid

Colour : blue

Odour : perceptible

Odour Threshold : not tested.

pH : approx. 9 (20 °C)  
Concentration: 300 g/l  
Method: DIN 19268

Melting point : approx. -58 °C  
Method: DIN 51583

Boiling point : approx. 155 °C  
(1.013 hPa)  
Method: ASTM D 1120

Flash point : approx. 105 °C  
Method: ASTM D6450 (closed cup)

Evaporation rate : not tested.

Burning number : Not applicable

Upper explosion limit : 12,6 %(V)  
Data relate to solvent

Lower explosion limit : 2,6 %(V)  
Data relate to solvent

Vapour pressure : < 0,01 kPa (20 °C)  
Method: Calculated by Syracuse.

Relative vapour density : not tested.

Density : approx. 1,043 g/cm<sup>3</sup> (20 °C)  
Method: DIN 51757

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Bulk density	:	Not applicable
Solubility(ies)		
Water solubility	:	miscible (20 °C)
Solubility in other solvents	:	not tested. Solvent: fat
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	> 450 °C Method: DIN 51794
Decomposition temperature	:	> 250 °C Method: DSC Measurement under nitrogen
Viscosity		
Viscosity, dynamic	:	approx. 62 mPa.s Method: calculated
Viscosity, kinematic	:	approx. 59 mm <sup>2</sup> /s (20 °C) Method: DIN 51562
Explosive properties	:	no data available
Oxidizing properties	:	Not applicable

**9.2 Other information**

Metal corrosion rate	:	< 6,25 mm/a
Minimum ignition energy	:	not tested.
Particle size	:	Not applicable
Self-ignition	:	The substance or mixture is not classified as self heating.

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**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

See section 10.3. "Possibility of hazardous reactions"

**10.2 Chemical stability**

Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

Hazardous reactions	:	Reactions with strong alkalies. Incompatible with oxidizing agents.
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**10.4 Conditions to avoid**

Conditions to avoid : None known.

**10.5 Incompatible materials**

Materials to avoid : not known

**10.6 Hazardous decomposition products**

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

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**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

**Product:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 423  
Remarks: By analogy with a product of similar composition

Acute inhalation toxicity : Remarks: not tested.

Acute dermal toxicity : Remarks: not tested.

**Skin corrosion/irritation**

**Product:**

Result: not determined

**Serious eye damage/eye irritation**

**Product:**

Result: not determined

**Respiratory or skin sensitisation**

**Product:**

Remarks: not tested.

**Germ cell mutagenicity**

**Product:**

Germ cell mutagenicity-  
Assessment : No information available.

**Carcinogenicity**

**Product:**

Carcinogenicity -  
Assessment : No information available.

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**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 classification was made by the conventional (calculation) method of the CLP Regulation (EC) No 1272/2008.

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**SECTION 12: Ecological information**

**12.1 Toxicity**

**Product:**

- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 1.400 mg/l  
Exposure time: 48 h  
Remarks: By analogy with a product of similar composition
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10 g/l  
Method: OECD Test Guideline 202  
Remarks: By analogy with a product of similar composition
- Toxicity to algae : EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 1.000 mg/l  
Method: OECD Test Guideline 201  
Remarks: By analogy with a product of similar composition
- Toxicity to microorganisms : EC10 : > 1.000 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209  
Remarks: By analogy with a product of similar composition



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**12.2 Persistence and degradability**

**Product:**

Biodegradability : Biodegradation: 99 %  
Exposure time: 2 d  
Method: OECD Test Guideline 302B  
Remarks: Information refers to the main component.

**12.3 Bioaccumulative potential**

**Product:**

Bioaccumulation : Remarks: not tested.

**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 classification was made by the conventional (calculation) method of the CLP Regulation (EC) No 1272/2008.

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**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Product : Dispose of in accordance with local regulations.

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

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**SECTION 14: Transport information**

Section 14.1. to 14.5.

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ADR	not restricted
ADN	not restricted
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.

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**SECTION 15: Regulatory information**

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

Volatile organic compounds : Directive 1999/13/EC on the limitation of emissions of volatile organic compounds  
Remarks: According to the composition the product contains no VOC component as defined by Directive 1999/13/EC.

Directive 2004/42/EC  
Remarks: According to the composition, the product contains no VOC components as defined by Directive 2004/42/EC.

Other regulations:

Theshold limit value (German MAK-value) not determined.

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.

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**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 (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally

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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; 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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