

**Safety Data Sheet in accordance with Regulation (EC) No  
1907/2006****ANTIFROGEN L**

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Substance key: SXR089131  
Version : 1 - 24 / EURevision Date: 20.06.2008  
Date of printing : 30.06.2008**1. Identification of the substance/preparation and of the company/undertaking****Trade name****ANTIFROGEN L****Use of the substance/preparation.**Industry sector : Functional Fluids  
Type of use : Brine for refrigeration**Identification of the company**

Clariant Produkte (Deutschland) GmbH

65926 Frankfurt am Main  
Telephone no. : +49 69 305 18000**Information about the substance/preparation**Div. Functional Chemicals/PRODUCT SAFETY  
++49(0)69-305-2092/15315/32251  
e-mail: FUN.EHS@clariant.com**Emergency telephone number : +49 69 305 6418****2. Hazards identification**

No particular hazards known.

**3. Composition/information on ingredients****Chemical characterization**

1,2-propandiol and inhibitors

**Hazardous ingredients**Sodium-2-ethylhexanoate  
Concentration : < 3 %  
CAS number : 19766-89-3  
EINECS number : 243-283-8  
Hazard symbols Xn  
R phrases 63

The text of the R-phrases is shown in section 16.

**4. First aid measures****General information**Remove soiled or soaked clothing immediately  
Take affected person to fresh air.**After inhalation**

When inhaled remove to fresh air and seek medical aid.

**After contact with skin**

In case of contact with skin wash off immediately with plenty of water

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In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice

**After ingestion**

Summon a doctor immediately.

**5. Fire-fighting measures****Suitable extinguishing media**water spray jet  
alcohol-resistant foam  
dry powder**Special hazards from the substance itself, its combustion products or from its vapours**

In case of fires, hazardous combustion gases are formed: Carbon monoxide (CO)

**Special protective equipment for firefighting**

Use self-contained breathing apparatus

**6. Accidental release measures****Personal precautions**

Wear suitable personal protective equipment.

**Environmental precautions**

Do not allow to enter drains or waterways

**Methods for cleaning up/taking up**Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder, sawdust).  
Dispose of as prescribed**7. Handling and storage****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

**Advice on storage compatibility**Do not store together with oxidizing agents.  
Do not store with strong alkalis.**8. Exposure controls / personal protection****Occupational exposure controls****General protective measures**

Do not inhale vapours

**Hygiene measures**

Keep away from foodstuffs and beverages.

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<b>Respiratory protection :</b>	Use respiratory protection in case of insufficient exhaust ventilation or prolonged exposure 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.
<b>Hand protection :</b>	For long-term exposure: Butyl rubber gloves. Minimum breakthrough time / gloves : 480 min Minimum thickness / gloves 0,7 mm  For short-term exposure (splash protection): Nitrile rubber gloves. Minimum breakthrough time / gloves : 30 min Minimum thickness / gloves 0,4 mm  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.
<b>Eye protection :</b>	safety glasses

**9. Physical and chemical properties**

<b>Form :</b>	Liquid
<b>Colour :</b>	blue
<b>Odour :</b>	perceptible
<b>Solidifying Point :</b>	-50 °C Method : DIN 51583
<b>Boiling temperature :</b>	approx. 170 °C ( 1.013 hPa) Method : ASTM D 1120
<b>Flash point :</b>	approx. 106 °C Method : DIN 51758 (closed cup)
<b>Ignition temperature :</b>	approx. 440 °C Method : DIN 51794
<b>Oxidizing properties :</b>	Not applicable
<b>Self-ignition temperature :</b>	not self-igniting
<b>Flammability</b>	
<b>Lower explosion limit :</b>	2,6 %(V)

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<b>Upper explosion limit :</b>	12,6 %(V)
<b>Combustion number :</b>	Not applicable
<b>Evaporation rate :</b>	not tested.
<b>Vapour pressure :</b>	0,1 mbar (20 °C) Method : Calculated by Syracuse.
<b>Density :</b>	approx. 1,05 g/cm <sup>3</sup> (20 °C) Method : DIN 51757
<b>Bulk density :</b>	Not applicable
<b>Vapour density in relation to air :</b>	not tested.
<b>Solubility in water :</b>	(20 °C) miscible
<b>Soluble in ... :</b>	fat not tested.
<b>pH value :</b>	7 - 9 (20 °C, 300 g/l) Method : DIN EN 1262
<b>Octanol/water partition coefficient (log Pow) :</b>	Not applicable
<b>Viscosity (kinematic) :</b>	approx. 72 mm <sup>2</sup> /s ( 20 °C) Method : DIN 51562

**10. Stability and reactivity**

**Thermal decomposition :** approx. 245 °C  
Method : DSC

**Hazardous reactions**

Reactions with strong alkalis.  
Incompatible with oxidizing materials.

**11. Toxicological information**

**Acute oral toxicity :** LD50 > 15.000 mg/kg (rat)  
Method : OECD 401

**Acute inhalation toxicity :** not tested.

**Acute dermal toxicity :** not tested.

**Irritant effect on skin :** non-irritant  
The product has not been tested. The information is derived from the properties of the individual components.

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<b>Irritant effect on eyes :</b>	non-irritant The product has not been tested. The information is derived from the properties of the individual components.
<b>Sensitization :</b>	not tested.
<b>Mutagenicity :</b>	not tested.

**12. Ecological information**

<b>Biodegradability :</b>	90 % good degradability Method : Zahn-Wellens test
<b>Fish toxicity :</b>	LC50 1.400 mg/l (48 h, golden orfe)
<b>Daphnia toxicity :</b>	EC50 > 10 g/l (Daphnia magna) Method : OECD 202
<b>Algae toxicity :</b>	EC50 > 1.000 mg/l (Scenedesmus subspicatus) Method : OECD 201
<b>Bacteria toxicity :</b>	EC10 > 1.000 mg/l (3 h) Method : OECD 209

**Remarks**

If handled correctly it causes no disturbance in treatment plants.

**13. Disposal considerations****Product**

In accordance with local authority regulations, take to special waste incineration plant

**14. Transport information**

<b>ADR</b>	not restricted
<b>ADNR</b>	not restricted
<b>RID</b>	not restricted
<b>IATA</b>	not restricted
<b>IMDG</b>	not restricted

**15. Regulatory information****Labelling in accordance with EC-Directives**

The product does not require a hazard warning label in accordance with EC Directives

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

**National regulations****Other regulations**

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

**16. Other information****Text of the R-phrases assigned to the ingredients/components mentioned in section 3 :**

63                      Possible risk of harm to the unborn child.

Decimal notation: "Thousands" places are identified with a dot (example: 2.000 mg/kg means "two thousand mg/kg"). Decimal places are identified with a comma (example: 1,35 g/cm<sup>3</sup>).

The data are based on the current state of our knowledge, and are intended to describe the product with regard to the requirements of safety. The data should not be taken to imply any guarantee of a particular or general specification. It is the responsibility of the user of the product to ensure to his satisfaction that the product is suitable for the intended purpose and method of use. We do not accept responsibility for any harm caused by the use of this information. In all cases, our general conditions of sale apply.