

Friogel

Monopropylene Glycol

SAFETY DATA SHEET
(according to 91/155/CEE)

1. SUBSTANCE / PREPARATION AND COMPANY NAME

Friogel

Antifreeze for central heating systems and installations for the production of cooled water.

ISCEON DISTRIBUTION SERVICES

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2. COMPOSITION / INFORMATION ON INGREDIENTS

Product contains more than 90 % of Propanediol (synonyms : Propylene Glycol, Mono Propylene Glycol).

Propanediol : CAS-No : 57-55-6
 CEE-No : 200-338-0

3. POSSIBLE HAZARDS

Danger phrases : none.

4. FIRST AID MEASURES

Propylene Glycol :

- Inhalation :
not considered harmful if used as prescribed.

- Skin contact :
not considered harmful if used as prescribed.

- Eye contact :
Rinse with water immediately during 20-30 minutes, frequently contracting the eyelids. Consult an eye specialist if the irritation persists.

- Ingestion :
not considered harmful if used as prescribed.

In case of massive ingestion : give 500 ml of lukewarm water to drink, but only if the victim is perfectly conscious. Do not induce vomiting. The risk of pulmonary damage is greater than the danger of intoxication. Consult a doctor immediately.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media : dry extinguishing media, foam, carbon dioxide (CO₂).

Specific risks : the heat of a fire may cause the formation of flammable vapours.

Mixed with air and exposed to ignition sources, the vapours can enflame in open air or explode in confined areas. Vapours are heavier than air and will expand over the floor. Product mist or spray may be flammable at temperatures below the normal flash point. See chapter 16.

Do not enter danger areas without proper protection equipment. See chapter 10. Fight the fire from a safe distance and from a protected place. Keep containers which are exposed to fire cool by spraying with water. A temperature rise makes the pressure rise, which may lead to explosion.

The burning liquid floats on water. Even if the product is soluble in water it is not recommended to try and extinguish a fire by diluting the product with water. Notify the authorities if the product has entered sewers or natural waters.

6. ACCIDENTAL RELEASE MEASURES

May contaminate water distribution systems and pollute drinking water. Evacuate the area and keep the public at a distance. Rescue teams should use proper protection equipment.

Do not discharge product into sewers / natural waters. Stop leaks.

Notify the fire brigade and the environmental authorities. Limit the use of water for cleaning operations. Cover spilled product with absorbent material.

Use adequate containers for the residues. The product is soluble in water, it can float or stream and it is biodegradable.

Avoid dispersion. Pick up and treat material in accordance with local laws.

7. HANDLING AND STORAGE

General information :

Hygroscopic. Use dry nitrogen or air to pressurise containers. Keep containers tightly closed to avoid contamination. Store at 20-30°C in hermetically closed containers. Keep away from heat, moisture and strong oxidising agents. Handle empty containers with care : residues may be combustible.

Decontamination methods :

Installations containing this product should be isolated and emptied, cleaned and purged before starting maintenance works. Use the recommended individual protection equipment.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Propylene Glycol :

Professional exposure limits : 8h TWA (mg/m³), UK : 467.

Breathing apparatus is not required if the product is used as prescribed and if the working space is well ventilated.

Skin protection :

Not considered to be harmful for the skin. Respect industrial hygiene measures when use of the product can lead to skin contact. Wash hands and other exposed parts with water and soft soap before eating, drinking, smoking or leaving the workroom.

Eye protection :

Wear protective glasses or face shield if there is a risk of eye contact by vaporisation of liquid or contact with dust / vapours. It is recommended not to wear contact lenses.

Industrial hygiene :

Wash hands before eating, drinking, smoking or going to the toilet. Take off contaminated clothes and wash them thoroughly before re-using them. After work, take a shower with lots of water and soap.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	liquid.
Odour :	odourless
Solidification temperature :	-60 °C
Boiling point :	155 °C
Density at 20 °C (kg/m ³) :	1051
Vapour pressure (mm Hg) at 25°C :	< 0.1
Relative density of vapours (air = 1) :	2.6
Viscosity at 25°C (mPas) :	4.6
Solubility in water :	total
Flash point :	100°C open cup
Combustion temperature :	371°C
Explosion limits in air :	lower : 2,4 % en vol. upper : 17,4 % en vol.

10. STABILITY AND REACTIVITY

Thermal decomposition :

No decomposition if used as prescribed. Avoid high temperatures, extreme oxidation conditions, open fire.

Hazardous decomposition products :

No hazardous decomposition products if used as prescribed. If exposed to fire, risk of emission of poison gases (carbon monoxide and carbonic anhydride).

Dangerous reactions with strong oxidising agents.

11. TOXICOLOGICAL INFORMATION

All informations below are given for Propylene Glycol.

Inhalation :

No signs or symptoms indicating harmful effects.

Skin contact :

No signs or symptoms indicating harmful effects.

Eye contact :

Slightly irritating.

Ingestion :

No signs or symptoms indicating harmful effects. DL50 / oral / rat = 21000 to 33700 mg/kg.

Chronic toxicity :

The product does not seem to represent any chronic risks.

Specific effects on health :

The product may aggravate existing eye affections.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Contaminated product / surfaces / water are not to be considered as dangerous waste. Dispose of the product on authorised sites, in accordance with local regulations. Burn concentrated liquids by diluting them with a combustible product of low viscosity. Avoid extinction of the fire by product depletion and make sure emissions are in accordance with regulations. Avoid overload or contamination of the bio-mass in sewage treatment plants.

14. TRANSPORT INFORMATION

Not dangerous for transport.

Not classified.

15. REGULATORY INFORMATION

Labelling according to EEC Directives :

Symbol : none

R-phrases : none

S-phrases : none

16. OTHER INFORMATION

This sheet completes our technical sheet but it does not replace it.

The information we give is based on our present knowledge of the product, and is valid on the date mentioned below.

The users' attention is drawn to the risks possibly incurred if the product is used for other uses than those it is specified to.