

## Material Safety Data Sheet

According to 91/155 EEC(2001/58 EC)

Printing date: 06.12.2006

Reviewed on: 06.12.2006

### 1 Identification of substance:

**Product details:****Trade name: Monopropyleneglycol (MPG)****Application of the substance / the preparation**

Raw material for the production of plastics and synthetic resins.

Antifreeze

Plasticizer

Detergents

Disinfectant

Solvents

Corrosion inhibitors

**Supplier/Manufacturer:**

Penpet Petrochemical Trading GmbH

Mercur-Park

Sieker Landstrasse 126

22143 Hamburg

Germany

Tel: +49 40 675 799 0

Fax: +49 40 675 799 99 / 88

**Information department:** see above**Emergency information:** National Poisons Information Centre Tel.: +44 (0)870 6006266

### 2 Composition/Data on components:

**Chemical characterization:****CAS No. Description:**

57-55-6 propane-1,2-diol

**Identification number(s):****EINECS Number:** 2003380

### 3 Hazards identification

**Hazard description:** not applicable**Information pertaining to particular dangers for man and environment:** not applicable**Classification system:**

The classification was made according to the latest editions of the EU-lists, and expanded using company data and specialized literature.

### 4 First aid measures

**General information:** If symptoms persist or in case of doubt seek medical advice.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:**

Remove soiled clothes and shoes.

Wash with water and soap and rinse with plenty of water.

After extensive or prolonged contact:

Seek medical treatment.

**After eye contact:**

Rinse opened eye for several minutes under running water.

If symptoms persist consult a doctor.

**After swallowing:**

Drink plenty of water, but never give anything to an unconscious person.

Induce vomiting, if person is conscious. Seek medical help.

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- **Information for doctor:**
- **Treatment:** Symptomatic treatment

### 5 Fire fighting measures

- **Suitable extinguishing agents:**  
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
Dangerous decomposition product see chapter 10: stability and reactivity
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information:**  
Heating leads to pressure increase entailing danger of bursting and explosion. Immediately cool neighbouring packages and containers with sprayed water and, if possible, remove them out of the danger zone  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

### 6 Accidental release measures

- **Person-related safety precautions:**  
Wear protective clothing.  
Particular danger of slipping on leaked/spilled product.
- **Measures for environmental protection:**  
Prevent seepage into sewage system, workpits and cellars.  
Do not allow to penetrate the ground/soil.
- **Measures for cleaning/collecting:**  
Absorb with non-combustible material like sand, soil or diatomite.  
Ensure adequate ventilation.  
Send for recovery or disposal in suitable receptacles.  
Dispose contaminated material as waste according to item 13.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:**  
Prevent formation of aerosols.  
Ensure good ventilation/exhaustion at the workplace.  
Use solvent-proof equipment.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Provide solvent resistant, sealed floor.  
Store in well-ventilated area.  
Suitable material for receptacles and pipes: Stainless steel.  
Suitable material for receptacles and pipes: Aluminium.  
Suitable material for receptacles and pipes: glass.  
Store at ambient temperatures and at dry conditions.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Store away from feed.
- **Further information about storage conditions:**  
Protect from humidity and water.  
This product is hygroscopic.
- **Storage class** 10 Combustible liquids

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### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**  
**57-55-6 propane-1,2-diol**  
 WEL (Great Britain) Long-term value: 474\* 10\*\* mg/m<sup>3</sup>, 150\* ppm  
\*total vapour and particulates \*\*particulates
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures:**  
 The usual precautionary measures should be adhered to when handling chemicals.  
 Do not inhale gases / fumes / aerosols.  
 Avoid contact with the eyes and skin.  
 Wash hands before breaks and at the end of work.  
 Do not eat or drink while working.
- **Breathing equipment:**  
 Not necessary if room is well-ventilated.  
 At formation of aerosols and mist:  
 Short term filter device:  
 Filter A  
 Filter A/P2.
- **Protection of hands:**  
 Chemical resistant gloves  
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation  
 Preventive skin protection by use of skin-protecting agents is recommended.  
 After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves:**  
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.  
 Natural rubber, NR  
 Polychloroprene rubber (CR)  
 Nitrile rubber, NBR  
 Fluorocarbon rubber (FKM)
- **Penetration time of glove material:**  
 480 min.(butyl rubber 0,5 mm)  
 8 hours (natural rubber 0,5 mm)
- **Eye protection:** Goggles recommended during refilling.
- **Body protection:** Protective work clothing.

### 9 Physical and chemical properties:

- **General Information**

<b>Form:</b>	Oily
<b>Colour:</b>	Colourless
<b>Odour:</b>	Nearly odourless
- **Change in condition:**

<b>Melting point/Melting range:</b>	-68°C
<b>Boiling point/Boiling range:</b>	185°C
- **Flash point:** > 100°C
- **Ignition temperature:** 371°C
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**

<b>Lower:</b>	2.6 Vol %
<b>Upper:</b>	12.6 Vol %

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- **Vapour pressure at 20°C:** 0.11 hPa
- **Density at 20°C:** 1.0362 g/cm<sup>3</sup>
- **Solubility in / Miscibility with Water:** Fully miscible
- **pH-value (- g/l) :** neutral
- **Viscosity:**
  - dynamic at 25°C: 46 mPas

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.  
To avoid thermal decomposition do not overheat.
- **Materials to be avoided:**  
Oxidants  
Reducing agents  
Acid anhydrides
- **Dangerous reactions:**  
Strong exothermic reaction with above-mentioned substances.  
Forms explosive gas mixture with air
- **Dangerous products of decomposition:**  
In the case of fire or at high temperatures the formation of the following decomposition products is possible.  
Carbon monoxide and carbon dioxide  
Irritant gases/vapours

### 11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**  
**157-55-6 propane-1,2-diol**  
Oral LD<sub>50</sub> > 5000 mg/kg (rat)  
Dermal LD<sub>50</sub> 20800 mg/kg (rabbit)
- **Primary irritant effect:**
- **on the skin:** Mild irritation of the skin is possible for persons with a sensitive skin.
- **on the eye:** Light irritation possible
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.  
The substance is not subject to classification according to the latest version of the EU lists.

### 12 Ecological information

- **Ecotoxicological effects:**
- **Aquatic toxicity:**  
**157-55-6 propane-1,2-diol**  
EC<sub>50</sub>/48h 34400 mg/l (daphnia magna)  
IC<sub>50</sub>/96h 19000 mg/l (Selenastrum capricornutum)  
LC<sub>50</sub>/96h 54900 mg/l (Pimephales promelas)
- **General notes:**  
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Danger to drinking water is possible if large quantities leak into the ground or into water course.

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### 13 Disposal considerations

- **Product:**
- **Recommendation:** Disposal according to instructions of local authorities.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -  
No hazardous good according to the regulation.
- **Maritime transport IMDG:**
- **IMDG Class:** No hazardous good according to the regulation.
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** No hazardous good according to the regulation.

### 15 Regulations

- **Markings according to EC guidelines:**  
The substance(product)is not subject to classification according to EC-directives and other sources of literature known to us.  
Observe the general safety regulations when handling chemicals
- **National regulations**
- **Technical guidance (air):**
- **Class Share in %**
- **III 100.0**
- **Water hazard class:** Water hazard class 1 (Assessment by list): slightly hazardous for water.

### 16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:**  
KFT-Chemieservice Marienstr. 3 D-64347 Griesheim  
Postfach 1451 D-64345 Griesheim  
Tel.: +49-6155-823241 Fax: +49-6155-823246
- **Contact:** Angelika Torges