

Material Safety Data Sheet

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

Printing date: 01.12.2006

Reviewed on: 01.12.2006

1 Identification of substance:

- **Product details:**
- **Trade name:** glycerine
- **Application of the substance / the preparation** Basic raw material for the chemical industry
- **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

2 Composition/Data on components:

- **Chemical characterization:**
- **CAS No. Description:**
56-81-5 glycerol
- **Identification number(s):**
- **EINECS Number:** 200-289-5

3 Hazards identification

- **Hazard description:** not applicable
- **Information pertaining to particular dangers for man and environment:**
According to current European laws and regulations the product is not dangerous or toxic material (based on the available data).

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.
- **After eye contact:**
Rinse the eyes with open eyelids for 10 - 15 minutes with water. Then consult a doctor or better an eye specialist.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting.
Seek medical treatment.
- **Information for doctor:**
- **The following symptoms may occur:**
After the uptake of large quantities:
Headache
Vomiting
Gastric or intestinal disorders.
Diarrhoea

5 Fire fighting measures

- **Suitable extinguishing agents:**
Use fire fighting measures that suit the environment.
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- **For safety reasons unsuitable extinguishing agents:**
 - Direct jet water
 - Foam
- **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:**
 - Cool endangered receptacles with water spray.
 - 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.
 - Ensure adequate ventilation
- **Measures for environmental protection:**
 - Do not allow product to reach sewage system or any water course.
 - Do not allow to penetrate the ground/soil.
- **Measures for cleaning/collecting:**
 - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 - Send for recovery or disposal in suitable receptacles.

7 Handling and storage

- **Handling**
- **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** Fumes can combine with air to form an explosive mixture.
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
 - Store at ambient temperatures and at dry conditions.
 - Suitable material for containers and packaging:
 - Stainless steel
 - Aluminium
- **Information about storage in one common storage facility:**
 - Store away from foodstuffs.
 - Store away from feed.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

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:** Not required.
- **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.
 - Wash hands before breaks and at the end of work.
- **Breathing equipment:**
 - Not necessary if room is well-ventilated.
 - Use suitable respiratory protective device only when aerosol or mist is formed.
- **Protection of hands:** Not required.
- **Material of gloves:** -
- **Penetration time of glove material:** -
- **Eye protection:** Goggles recommended during refilling.

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- **Body protection:** Protective work clothing.

9 Physical and chemical properties:

· General Information

Form: Fluid
Colour: Colourless
Odour: Odourless

· Change in condition:

Melting point/Melting range: ~ 18°C
Boiling point/Boiling range: undetermined

· **Flash point:** ~ 198°C

· **Ignition temperature:** 400°C

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

Lower: 0.9 Vol %

· **Density at 25°C:** 1.26 g/cm³

· Solubility in / Miscibility with

Water: Fully miscible

· **pH-value:** Neutral

10 Stability and reactivity

· Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.
 In case of elevated temperatures risk of exothermic polymerisation (> 200° C).
 To avoid thermal decomposition do not overheat.

· **Materials to be avoided:** Strong oxidants

· Dangerous reactions:

In contact with strong oxidizing substances like nitric acid or other strong acids explosive reactions may be possible.

· 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
 Acrolein

11 Toxicological information

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

656-81-5 glycerol

Oral LD₅₀ 12600 mg/kg (rat)

Dermal LD₅₀ >18700 mg/kg (rabbit)

· Primary irritant effect:

· **on the skin:** Irritation to skin and mucous membrane possible.

· **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.

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12 Ecological information

- **Information about elimination (persistence and degradability):**
- **Other information:** The product is readily biodegradable.
- **Ecotoxicological effects:**
- **Aquatic toxicity:**

56-81-5 glycerol

 EC₅₀/24h >10000 mg/l (daphnia magna)

 EC₅₀/48h > 2900 mg/l (algae)

 EC₅₀/72h > 10000 mg/l (bacteriae)

 LC₅₀ >10000 mg/l (leuciscus idus)

 LC₅₀/24h >5000 mg/l (carrassius auratus)

- **Remark:** (literature data)

- **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.

13 Disposal considerations

- **Product:**
 - **Recommendation:** Disposal according to instructions of local authorities.
 - **European waste catalogue:**
- 07 01 99 wastes not otherwise specified
- **Uncleaned packagings:**
 - **Recommendation:** Disposal must be made according to official regulations.

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 %**
- **NK 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.

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