

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:** Pentaerythritol
- **Application of the substance / the preparation**
 - Resin
 - Paint
 - Lacquer
- **Supplier/Manufacturer:**
 - Penpet Petrochemical Trading GmbH
 - Merkur-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:**
 - 115-77-5 Pentaerythritol
- **Identification number(s):**
- **EINECS Number:** 204-104-9

3 Hazards identification

- **Hazard description:** not applicable
- **Information pertaining to particular dangers for man and environment:**
 - No hazards to be particularly mentioned. Please note the information of this Material Safety Data Sheet.
- **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:**
 - Wash with water and soap.
 - If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
 - Rinse out mouth and then drink plenty of water.
 - Never give anything by mouth to a unconscious person.
 - Whether vomiting should be induced or not has to be decided by a doctor.
 - In case of unintentional swallowing of bigger quantities or if any symptoms occur seek medical 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.

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- **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:**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Person-related safety precautions:**



Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Do not smoke - keep ignition sources away

- **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:**

Avoid dust formation absolutely. If necessary pick up with a tested and approved industrial vacuum cleaner.

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:**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

Any deposit of dust which cannot be avoided must be regularly removed.

Avoid inhalation of dust.

Avoid contact with eyes and skin.

- **Information about protection against explosions and fires:**

Dust can combine with air to form an explosive mixture.



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges

- **Storage**

- **Requirements to be met by storerooms and receptacles:** 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** 11 Combustible solids

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** Install appropriate mechanical ventilation.
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional Occupational Exposure Limit Values for possible hazards during processing:**
Observe general threshold limit for dust.

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- **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.
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Vacuum clean contaminated clothing. Do not blow or brush off contamination.
 Avoid close or long term contact with the skin.
 Use skin protection cream for skin protection.
- **Breathing equipment:**
 Not necessary if room is well-ventilated.
 Use suitable respiratory protective device in case of insufficient ventilation.
 Short term filter device:
 Filter P1.
- **Protection of hands:**
 Protective gloves or protective skin cream.
 To avoid skin problems reduce the wearing of gloves to the required minimum.
 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.
 For undissolved solid substances following materials may be suitable:
 Nitrile rubber, NBR
 Butyl rubber, BR
 Polychloroprene rubber (CR)
 Fluorocarbon rubber (FKM)
- **Penetration time of glove material:**
 The exact break-through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling.
- **Body protection:** Protective work clothing.

9 Physical and chemical properties:

- **General Information**

Form:	Powder
Colour:	White
Odour:	Odourless
- **Change in condition:**

Melting point/Melting range:	254 - 262°C
Boiling point/Boiling range:	276/40 mbar°C
- **Flash point:** 240°C
- **Flammability (solid, gaseous)** Product is not flammable.
- **Ignition temperature:** 390°C
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/dust mixtures is possible.
- **Density at 20°C:** 1.396 g/cm³
- **Solubility in / Miscibility with**

Water at 20°C:	50 g/l
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10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Materials to be avoided:**
 Oxidants

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- Strong acids
- Acid chlorides
- Acid anhydrides
- **Dangerous reactions:** No dangerous reactions known
- **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
- **Additional information:** Hygroscopic

11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
Pentaerythrit
Oral LD50 19500 mg/kg (rat)
- **Primary irritant effect:**
- **on the skin:** No irritation, but slight irritation or redness is possible after long or repeatedly mechanical contact.
- **on the eye:** Eye irritation is possible after mechanical influence (dust).
- **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:** Presently there are no ecotoxicological values available.
- **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.
- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.
Packaging can be reused or recycled after cleaning.

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.

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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.
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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
 - **Sources:** RTECS database
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