

## Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date: 27.12.2007

Revision: 27.12.2007

### 1 Identification of substance:

- **Product details:**
- **Trade name:** **p-Toluenesulfonic acid**
- **Application of the substance / the preparation** Chemicals for synthesis
- **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
- **Email competent person:** angelika.torges@kft.de
- **Information department:** See supplier/manufacturer
- **Emergency information:** National Poisons Information Centre Tel.: +44 (0)870 6006266

### 2 Hazards identification

- **Hazard description:**



Xi Irritant

- **Information pertaining to particular dangers for man and environment:**  
R 36/37/38 Irritating to eyes, respiratory system and skin.
- **Classification system:**  
The classification was made according to the latest editions of the EU-lists, and expanded using company data and specialized literature.

### 3 Composition/information on ingredients

- **Chemical characterization:**
- **CAS No. Description:**  
104-15-4 p-Toluenesulfonic acid
- **Identification number(s):**
- **EINECS Number:** 203-180-0
- **EU Number:** 016-030-00-2

### 4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**  
Take affected persons into fresh air and keep quiet.  
Seek medical treatment.  
In case of unconsciousness, place patients on their side in a stable position for transportation.
- **After skin contact:**  
Take-off and remove wetted clothing, shoes and stocking immediately. Rinse affected parts of the body with plenty of water.  
Seek medical treatment.
- **After eye contact:**  
Protect unharmed eye.  
Rinse the eyes with open eyelids for 10 - 15 minutes with water. Then consult an eye specialist immediately.
- **After swallowing:**  
Rinse mouth with water.

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Drink plenty of water, but never give anything to an unconscious person.  
Do not induce vomiting; call for medical help immediately.

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

### 5 Fire fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, 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:**  
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:**

Ensure adequate ventilation  
Avoid formation of dust.



Wear protective equipment. Keep unprotected persons away.

Avoid contact with eyes and skin.

- **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:**

Ensure adequate ventilation.  
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:**

Keep receptacles tightly sealed.  
Ensure good ventilation/exhaustion at the workplace.  
Avoid inhalation of dust.  
Avoid contact with eyes and skin.

- **Information about protection against explosions and fires:** No special measures required.

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Store container tightly sealed at a cool and dry place with sufficient ventilation.  
Unsuitable material for receptacle: metal

- **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.

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Protect from humidity and water.

 · **Storage class** 8 Corrosive products (VCI)

### 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:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Provide eye bath.

 · **Breathing equipment:**

Not necessary if room is well-ventilated.

At formation of dust:



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Short term filter device:

Filter 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

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.

 · **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:** Tightly sealed goggles.

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

### 9 Physical and chemical properties:

 · **General Information**

<b>Form:</b>	Crystalline
<b>Colour:</b>	White
<b>Odour:</b>	Weak, characteristic

 · **Change in condition:**

<b>Melting point/Melting range:</b>	98°C
<b>Boiling point/Boiling range:</b>	170°C
	Decomposition

 · **Flash point:** not applicable

 · **Danger of explosion:** Product does not present an explosion hazard.

 · **Density at 20°C:** 1.23 g/cm<sup>3</sup>

 · **Solubility in / Miscibility with Water at 20°C:** 700 g/l

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- **pH-value (700 g/l) at 20°C:** < 1
- **Segregation coefficient (n-octanol/water):** ~ 0.9 log POW

### 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:**  
Alkalis  
Strong oxidants  
Metals
- **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.  
Sulphur oxides (SO<sub>x</sub>)
- **Additional information:** Hygroscopic

### 11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**  
Oral LD<sub>50</sub> 2480 mg/kg (rat)  
1410 mg/kg (rat/female)
- **Primary irritant effect:**
- **on the skin:**  
Irritant to skin and mucous membranes.  
Irritating to mucous membrane and respiratory tract.  
Repeated or prolonged skin contact may have caustic effects on skin.
- **on the eye:**  
Strong irritating effect.  
Caustic effects on the eyes will be likely, if eyes are not rinsed out immediately.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
After swallowing: irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

### 12 Ecological information

- **Information about elimination (persistence and degradability):**
- **Other information:** The product is readily biodegradable.
- **Behaviour in environmental systems:**
- **Mobility and bioaccumulation potential:** Bioaccumulation is not to be expected (log P o/w < 1)
- **Ecotoxicological effects:**
- **Aquatic toxicity:**  
EC<sub>01</sub>/24h > 2500 mg/l (daphnia magna)  
EC<sub>50</sub>/24h 245 mg/l (algae)  
LC<sub>50</sub>/96h > 500 mg/l (Iepomis macrochirus)  
QSAR
- **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:**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Disposal according to instructions of local authorities.

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 8 (C4) Corrosive substances.
- **Danger code (Kemler):** 80
- **UN-Number:** 2585
- **Packaging group:** III
- **Label:** 8
- **Description of goods:** 2585 ARYLSULPHONIC ACIDS, SOLID
- **Remarks:** Limited Quantity: 6 kg per inner packaging, 30 kg gross per packaging unit

- **Maritime transport IMDG:**



- **IMDG Class:** 8
- **UN Number:** 2585
- **Label:** 8
- **Packaging group:** III
- **EMS Number:** F-A S-B
- **Proper shipping name:** ARYLSULPHONIC ACIDS, SOLID

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 8
- **UN/ID Number:** 2585
- **Label:** 8
- **Packaging group:** III
- **Proper shipping name:** ARYLSULPHONIC ACIDS, SOLID
- **Remarks:**
  - Packing Instructions:
  - For Limited Quantity: Y 822 5 kg max. net/Pkg
  - Passenger and cargo aircraft: 822 25 kg max. net/Pkg
  - Cargo aircraft only: 823 100 kg max. net/Pkg

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### 15 Regulations

**Markings according to EC guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials "EC-labelling"

**Code letter and hazard designation of product:**

Xi Irritant

**Risk phrases:**

36/37/38 Irritating to eyes, respiratory system and skin.

**Safety phrases:**

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

37 Wear suitable gloves.

**National regulations**

**Information about limitation of use:** Restrictions on juvenile employment must be observed.

**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:**

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**Sources:** ESIS (EU Existing Substances Information System)