

# Material Safety Data Sheet

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

Printing date: 13.12.2006

Reviewed on: 13.12.2006

### 1 Identification of substance:

- **Product details:**
- **Trade name:** **para-tert Butylbenzoic Acid (PTBBA)**
- **Application of the substance / the preparation** Catalyst for alkyd resins
- **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:**  
98-73-7 4-tert-butylbenzoic acid
- **Identification number(s):**
- **EINECS Number:** 202-696-3

### 3 Hazards identification

- **Hazard description:**



Xn Harmful  
N Dangerous for the environment

- **Information pertaining to particular dangers for man and environment:**  
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
R 48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.  
R 62 Possible risk of impaired fertility.  
R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Classification system:**  
The classification was made according to the latest editions of the EU-lists, and expanded using company data and specialized literature.
- **Additional information:** Aqueous solutions of the substance are acidic.

### 4 First aid measures

- **General information:**  
Symptoms of poisoning may occur even after several hours; therefore medical observation is suggested for at least 48 hours after the accident.  
Immediately remove any clothing soiled by the product.
- **After inhalation:**  
Remove victim from contaminated area. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration. Call a doctor.  
In case of unconsciousness, place patients on their side in a stable position for transportation.
- **After skin contact:**  
Clean effected skin thoroughly with water and a mild cleansing agent. No residues shall remain on the skin.  
If available apply polyethylenglycol (PEG 400, Lutrol) and let it remain on the skin for several minutes.  
Do not use solvents or thinners.

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- Seek medical treatment.
- **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 mouth with water.  
Drink plenty of water, but never give anything to an unconscious person.  
Administer medicinal carbon  
Do not administer milk or alcohol.  
Do not administer edible oils or ricinus oil.  
Call for a doctor immediately.
- **Information for doctor:**
- **The following symptoms may occur:**  
After inhalation:  
Cough  
Breathing difficulty  
After swallowing:  
After resorption:  
Ataxia
- **Treatment:** In cases of irritation to the lungs, initial treatment with Dexametason metered aerosol.

### 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.
- **For safety reasons unsuitable extinguishing agents:** Direct jet water
- **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:**  
Ensure adequate ventilation  
Avoid formation of dust.  
Use respiratory protective device against the effects of fumes/dust/aerosol.  
Wear protective clothing.  
Keep unprotected persons away.  
Do not smoke - keep ignition sources away
- **Measures for environmental protection:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to penetrate the ground/soil.  
In case of seepage into the ground inform responsible authorities.
- **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.

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### 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.
- Restrict the quantity stored at the work place.

**· 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 container tightly sealed at a cool and dry place with sufficient ventilation.

**· 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:**

- Keep away from foodstuffs, beverages and feed.
- Wash hands before breaks and at the end of work.
- Vacuum clean contaminated clothing. Do not blow or brush off contamination.
- Avoid contact with the eyes and skin.
- Immediately remove all soiled and contaminated clothing
- Do not inhale dust / smoke / mist.
- Do not eat or drink while working.
- Use skin protection cream for skin protection.

**· Breathing equipment:**

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.
- Filter P3.

**· 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.
- For undissolved solid substances following materials may be suitable:

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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.

According to hazard:

Apron

Boots

## 9 Physical and chemical properties:

**General Information**

<b>Form:</b>	Flakes
<b>Colour:</b>	White
<b>Odour:</b>	Light Aromatic

**Change in condition:**

<b>Melting point/Melting range:</b>	166-167°C
<b>Boiling point/Boiling range:</b>	280°C Decomposition

**Flash point:**

180°C

**Flammability (solid, gaseous)**

Product is not flammable.

**Ignition temperature:**

&gt; 510°C

**Decomposition temperature:**

&gt; 280°C

**Danger of explosion:**

Product does not present an explosion hazard.

**Vapour pressure at 20°C:**

&lt; 0.01 hPa

**Density at 20°C:**
0.6 g/cm<sup>3</sup>
**Solubility in / Miscibility with**
**Water at 20°C:** 0.3 g/l

**pH-value at 20°C:**
3.9  
in saturated solution
**Segregation coefficient (n-octanol/water) at 21°C:** 3.4 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:**

Strong oxidants

Alkalis

**Dangerous reactions:**

As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion

**Dangerous products of decomposition:** No dangerous decomposition products known

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## 11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
  - Oral LD<sub>50</sub> 473-735 mg/kg (rat)
  - Inhalative LC<sub>50</sub>/4 h > 1.8 mg/l (rat)
- **Primary irritant effect:**
- **on the skin:** No irritating effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:** Risk of skin adsorption.

## 12 Ecological information

- **Information about elimination (persistence and degradability):**
- **Other information:** It is not readily biodegradable.
- **Behaviour in environmental systems:**
- **Mobility and bioaccumulation potential:** log P (o/w) >3 - Considerable bioaccumulation is to be expected
- **Ecotoxic effects:**
- **Aquatic toxicity:**
  - EC<sub>50</sub>/24h 24 mg/l (daphnia magna)
  - EC<sub>50</sub>/48h 1000 mg/l (pseudomonas fluorescens)
  - IC<sub>50</sub>/96h 2 mg/l (des)
  - LC<sub>50</sub>/96h 4 mg/l (carrassius auratus)
- **Remark:** Toxic for fish
- **General notes:**
  - Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.
  - Do not allow product to reach ground water, water course or sewage system, even in small quantities.
  - Danger to drinking water if even extremely small quantities leak into the ground.
  - Also poisonous for fish and plankton in water bodies.
  - Toxic for aquatic organisms

## 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:** 9 (M7) Miscellaneous dangerous substances and articles.
- **Danger code (Kemler):** 90
- **UN-Number:** 3077
- **Packaging group:** III
- **Label:** 9
- **Description of goods:** 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (4-tert-butylbenzoic acid)

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· **Remarks:** Limited Quantity:6 kg per inner packaging, 30 kg gross per packaging unit

· **Maritime transport IMDG:**



- **IMDG Class:** 9
- **UN Number:** 3077
- **Label:** 9
- **Packaging group:** III
- **EMS Number:** F-A S-F
- **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (4-tert-butylbenzoic acid)

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



- **ICAO/IATA Class:** 9
- **UN/ID Number:** 3077
- **Label:** 9
- **Packaging group:** III
- **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (4-tert-butylbenzoic acid)

## 15 Regulations

· **Markings according to EC guidelines:**

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

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



Xn Harmful  
N Dangerous for the environment

· **Risk phrases:**

- 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- 48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
- 62 Possible risk of impaired fertility.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Safety phrases:**

- 9 Keep container in a well-ventilated place.
- 36/37 Wear suitable protective clothing and gloves.
- 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

· **National regulations**

· **Information about limitation of use:**

Employment restrictions concerning pregnant and lactating women must be observed.  
Restrictions on juvenile employment must be observed.

· **Water hazard class:** Water danger class 3 (Self-assessment): extremely 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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· **Department issuing MSDS:**

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