

## Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date: 27.11.2007

Revision: 27.11.2007

### 1 Identification of substance:

**Product details:****Trade name:** para-tert-butylphenol**Application of the substance / the preparation** Phenolic resin**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

N Dangerous for the environment

**Information pertaining to particular dangers for man and environment:**

R 36/38 Irritating to eyes and skin.

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.

### 3 Composition/information on ingredients

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

98-54-4 4-tert-butylphenol

**Identification number(s):****EINECS Number:** 202-679-0

### 4 First aid measures

**General information:** 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.

Seek medical treatment.

**After eye contact:** Rinse the eyes with open eyelids for 10 - 15 minutes with water. Then consult an eye specialist immediately.**After swallowing:**

Rinse out mouth and then drink plenty of water.

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Never give anything by mouth to a unconscious person.  
Administer castor oil or edible oil, then induce vomiting.  
Call a doctor immediately.

· **Information for doctor:**

· **The following symptoms may occur:**

Irritation of mucuous membranes

After swallowing:

Gastric or intestinal disorders.

Nausea

Vomiting

After inhalation:

Cough

Local irritation symptoms

Oedema of the lungs

Pneumonia

· **Treatment:**

Symptomatic treatment

In cases of irritation to the lungs, initial treatment with Dexametason metered aerosol.

### 5 Fire fighting measures

· **Suitable extinguishing agents:**

Use fire fighting measures that suit the environment.

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **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.

Wear fully protective suit.

· **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 equipment. Keep unprotected persons away.

Ensure adequate ventilation

Use respiratory protective device against the effects of fumes/dust/aerosol.

· **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.

In case of seepage into the ground inform responsible authorities.

Do not allow to penetrate the ground/soil.

· **Measures for cleaning/collecting:**

Ensure adequate ventilation.

Pick up mechanically.

Pick up with lime or anhydrous sodium carbonate.

Dispose contaminated material as waste according to item 13.

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Send for recovery or disposal in suitable receptacles.

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### 7 Handling and storage

**· Handling****· Information for safe handling:**

- Prevent formation of dust.
- Any deposit of dust which cannot be avoided must be regularly removed.
- Ensure good ventilation/exhaustion at the workplace.
- Avoid contact with eyes and skin.
- Avoid inhalation of dust.
- Keep the working area dry and clean.
- 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.

Suitable material:

Polyethylene

Glass

Ceramic

Unsuitable material:

Copper

**· 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.**· 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 Occupational Exposure Limit Values for possible hazards during processing:**

- Observe general threshold limit for dust.

**· 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.
- 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 contact with the eyes and skin.
- Use skin protection cream for skin protection.
- Provide eye bath.
- If larger quantities are handled provide emergency showers.

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- **Breathing equipment:**

Use suitable respiratory protective device in case of insufficient ventilation.



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

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:**

Butyl rubber, BR

Fluorocarbon rubber (FKM)

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:**

480 min.(butyl rubber 0,5 mm)

480 min. FKM ( 0,4 mm)

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.

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### 9 Physical and chemical properties:

- **General Information**

<b>Form:</b>	Flakes Crystals
<b>Colour:</b>	White
<b>Odour:</b>	Phenol-like

- **Change in condition:**

**Melting point/Melting range:** 101°C

**Boiling point/Boiling range:** 239.5°C

- **Flash point:** 125°C

- **Flammability (solid, gaseous)** Product is not flammable.

- **Ignition temperature:** 475°C

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/dust mixtures is possible.

- **Vapour pressure at 20°C:** 0.03 hPa

- **Density at 20°C:** 0.9081 g/cm<sup>3</sup>

- **Solubility in / Miscibility with**

**Water at 20°C:** 0.6 g/l

- **pH-value (10 g/l) at 20°C:** ~ 7

- **Segregation coefficient (n-octanol/water):** 2.44 log POW

- **Additional information:** Soluble in ethanol  
Soluble in ether.

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### 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:**

Acids  
Oxidants  
Acid anhydrides  
Acid chlorides  
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:**

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

- **Additional information:**

Hygroscopic  
Corrosive to metals

### 11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Oral LD<sub>50</sub> 4000 mg/kg (rat)  
OECD Guide-line 401

Dermal LD<sub>50</sub> 2288 mg/kg (rabbit)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Strong irritating effect.

- **Sensitization:** Not sensitizing (Human Patch Test)

- **Additional toxicological information:**

Spotty depigmentation at the upper extremities are a sign of exposition resp. intoxication.

Risk of skin adsorption.

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:** Not biodegradable

- **Behaviour in environmental systems:**

- **Mobility and bioaccumulation potential:**

Due to the distribution coefficient n-octanol/water an accumulation in organisms is possible.

- **Ecotoxicological effects:**

- **Aquatic toxicity:**

EC<sub>50</sub>/24h 4.8 mg/l (daphnia magna)

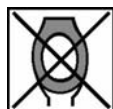
EC<sub>50</sub>/72h 11.2 mg/l (scenedesmus subspicatus)

LC<sub>50</sub>/48h 1.5 mg/l (leuciscus idus)

LC<sub>50</sub>/96h > 1 mg/l (rainbow trout)

- **General notes:**

Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water.



Do not allow product to reach ground water, water course or sewage system.

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Danger to drinking water if even small quantities leak into the ground.

### 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.

- **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:** 8 (C4) Corrosive substances.
- **Danger code (Kemler):** 80
- **UN-Number:** 2430
- **Packaging group:** III
- **Label:** 8
- **Description of goods:** 2430 ALKYLPHENOLS, SOLID, N.O.S. (4-tert-butylphenol)
- **Remarks:** Limited Quantity: 6 kg per inner packaging, 30 kg gross per packaging unit

- **Maritime transport IMDG:**



- **IMDG Class:** 8
- **UN Number:** 2430
- **Label:** 8
- **Packaging group:** III
- **EMS Number:** F-A,S-B
- **Marine pollutant:** No
- **Proper shipping name:** ALKYLPHENOLS, SOLID, N.O.S. (4-tert-butylphenol)

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



- **ICAO/IATA Class:** 8
- **UN/ID Number:** 2430
- **Label:** 8

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- **Packaging group:** III
- **Proper shipping name:** ALKYLPHENOLS, SOLID, N.O.S.  
(4-tert-butylphenol)
- **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

### 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:**  
  
Xi Irritant  
N Dangerous for the environment
- **Risk phrases:**  
36/38 Irritating to eyes and skin.  
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Safety phrases:**  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
37 Wear suitable gloves.  
57 Use appropriate container to avoid environmental contamination.  
60 This material and its container must be disposed of as hazardous waste.
- **National regulations**
- **Information about limitation of use:**  
Restrictions on juvenile employment must be observed.  
Employment restrictions concerning pregnant and lactating women must be observed.
- **Water hazard class:** Water hazard class 2 (Assessment by list): 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
- **Sources:**  
RTECS database  
ESIS (European existing Substances Information System)