

# 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:** **Benzoic Acid**
- **Application of the substance / the preparation**  
Production of synthetic resins and plastic intermediate products  
Preservative
- **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:**  
65-85-0 benzoic acid
- **Identification number(s):**
- **EINECS Number:** 200-618-2
- **Additional information:** E 210

### 3 Hazards identification

- **Hazard description:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment:**  
R 22 Harmful if swallowed.  
R 36 Irritating to eyes.
- **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:**  
Symptoms of poisoning may occur even after several hours; therefore medical observation is suggested for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** 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 mouth with water.  
Drink plenty of water, but never give anything to an unconscious person.  
Seek medical treatment.
- **Information for doctor:**
- **The following symptoms may occur:**  
Irritation of eyes and mucuous membrane.  
After the uptake of large quantities:  
Local irritation symptoms  
After resorption of larger quantities:  
Gastric or intestinal disorders.  
After inhalation:  
Irritation of mucuous membranes

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### 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:**



Wear protective equipment. Keep unprotected persons away.

- Ensure adequate ventilation
- Avoid formation of dust.
- Use respiratory protective device against the effects of fumes/dust/aerosol.
- Do not smoke - keep ignition sources away
- **Measures for environmental protection:**  
Do not allow to penetrate the ground/soil.  
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Pick up mechanically.  
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:**  
Prevent formation of dust.  
Ensure good ventilation/exhaustion at the workplace.  
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 heat and direct sunlight.
- **Storage class 11** Combustible solids

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## 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.
- **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.  
Do not inhale dust / smoke / mist.  
Avoid contact with the eyes and skin.  
Provide eye bath.  
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 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:**  
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:** Safety glasses
- **Body protection:** Protective work clothing.

## 9 Physical and chemical properties:

### · General Information

<b>Form:</b>	Solid.
<b>Colour:</b>	White
<b>Odour:</b>	Characteristic

### · Change in condition:

<b>Melting point/Melting range:</b>	122°C
<b>Boiling point/Boiling range:</b>	248°C
<b>Sublimation temperature / start:</b>	> 100°C

### · Flash point:

121°C

### · Flammability (solid, gaseous)

Product is not flammable.

### · Ignition temperature:

570°C

### · Danger of explosion:

Product does not present an explosion hazard.

### · Vapour pressure at 20°C:

1.3 hPa

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- **Density at 20°C:** 1.3 g/cm<sup>3</sup>
- **Bulk density at 20°C:** ~ 500 kg/m<sup>3</sup>
- **Solubility in / Miscibility with Water at 20°C:** 2.9 g/l
- **Segregation coefficient (n-octanol/water):** 1.88 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:**  
Flourine  
Oxygen
- **Dangerous reactions:**  
Risk of dust explosion  
Reactions with above-mentioned substances  
Develops readily flammable gases / fumes
- **Dangerous products of decomposition:** No dangerous decomposition products known

### 11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**  
Oral LDLo 500 mg/kg (men)  
LD<sub>50</sub> 1700 mg/kg (rat)
- **Primary irritant effect:**
- **on the skin:** May cause irritation to the skin.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Other information (about experimental toxicology):** Ames-test: no mutagenic effects
- **Experience with humans:**  
Benzoic acid and its derivates may cause allergic or pseudo allergic symptoms. Especially persons having asthma or an allergy to salicylic acid and its derivates are concerned.

### 12 Ecological information

- **Information about elimination (persistence and degradability):**
- **Other information:** The product is readily biodegradable.
- **Behaviour in environmental systems:**
- **Mobility and bioaccumulation potential:**  
Due to the distribution coefficient n-octanol/water a worth-mentioning accumulation in organisms is not expected.
- **Ecotoxic effects:**
- **Aquatic toxicity:**  
**65-85-0 Benzoic acid**  
EC<sub>50</sub>/24h 102 mg/l (daphnia magna)  
IC<sub>50</sub>/72h 10-100 mg/l (algae)  
LC<sub>50</sub>/96h 44.6 mg/l (Iepomis macrochirus)
- **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.

### 13 Disposal considerations

- **Product:**
- **Recommendation:** Disposal according to instructions of local authorities.

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- **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 product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials
- **Code letter and hazard designation of product:**



Xn Harmful

- **Risk phrases:**  
22 Harmful if swallowed.  
36 Irritating to eyes.
- **Safety phrases:**  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
36 Wear suitable protective clothing.  
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 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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