

## BENZOIC ACID

## Material Safety Data Sheet

Mallinckrodt Chemical Inc.

P.O. Box 800

Paris, Kentucky 40362

Emergency Telephone Number

314-539-1600

Effective Date: 12-22-93 Supersedes 08-27-85

## PRODUCT IDENTIFICATION:

Synonyms: Benzenecarboxylic acid; benzeneformic acid; phenyl carboxylic acid

Formula CAS No.: 65-85-0

Molecular Weight: 122.12

Hazardous Ingredients: Benzoic acid

Chemical Formula: C<sub>6</sub>H<sub>5</sub>COOH

## PRECAUTIONARY MEASURES

WARNING! CAUSES EYE IRRITATION. MAY CAUSE IRRITATION TO SKIN AND RESPIRATORY TRACT. MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR.

Avoid contact with eyes, skin and clothing.  
 Avoid breathing dust.  
 Wash thoroughly after handling.  
 Avoid dust cloud in presence of an ignition source.  
 Maintain adequate ventilation.

## EMERGENCY FIRST AID

In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes.

SEE SECTION 5.

## Physical Data

## SECTION 1

Appearance: White, needle-like crystals.

Odor: Faint pleasant odor.

Solubility: 0.29 g/100 g water; sinks in water.

Boiling Point: 249.2 C (480 F)

Vapor Density (Air=1): 4.21

Melting Point: 122.4 C (252 F)

Vapor Pressure (mm Hg): 10 @ 132 C (270 F)

Density: 1.321

Evaporation Rate: No information found.

NFPA Ratings: Health: 2 Flammability: 1 Reactivity: 0

## Fire and Explosion

## SECTION 2

## Information

## Fire:

Flashpoint: 121 C (250 F) (CC) Autoignition temperature: 570 C (1058 F)

## Explosion:

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Minimum explosible concentration 0.011 g/l. Vapor may explode if ignited in an enclosed area. Vapor from molten benzoic acid may form explosive mixture with air.

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Reactivity Data

SECTION 3

-----  
Stability:

-----  
Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Emits toxic vapors and gas including phenol, benzene, and carbon monoxide when heated to decomposition.

Hazardous Polymerization: This substance does not polymerize.

Incompatibilities:

Oxidizing agents, bases, and metals. Water solutions can react with metals to produce hydrogen gas.

Leak/Spill Disposal Information

SECTION 4

-----  
Ventilate the area of the leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from dust. Scoop up solid for recovery or disposal into a plastic-bag lined container. Cover trace residues or small spills with soda ash or sodium bicarbonate, sprinkle with water and mix to neutralize. Disposal: Package unreclaimable material for disposal in a RCRA-approved waste facility. Alternatively, waste can be dissolved in a flammable solvent and burned in an approved incinerator with an afterburner. Toxic to fish in very low concentrations.

Reportable Quantity (RQ) (CWA/CERCLA) : 5000 lbs.

Ensure compliance with local, state and federal regulations.

Health Hazard Information

SECTION 5

-----  
A. Exposure/Health Effects

-----  
Inhalation: May cause irritation to the respiratory tract, (nose and throat); symptoms may include coughing and sore throat.

Ingestion: Large oral doses may cause abdominal pain, sore throat, nausea, and vomiting.

Skin Contact: If allowed to remain on skin, may cause irritation with redness and pain.

Eye Contact: Causes irritation with redness and pain.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: No information found.

B. FIRST AID

-----  
Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: Give several glasses of water to drink to dilute. If

large amounts were swallowed, get medical advice.

Skin Exposure: Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Exposure: Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY (RTECS, 1993)

Oral rat LD50: 1700 mg/kg; irritation skin rabbit: 500 mg/24H mild; eye rabbit: 100 mg severe; investigated as a mutagen.

Occupational Control Measures SECTION 6

Airborne Exposure Limits: None established.

Ventilation System: A local exhaust system which captures the contaminant at its source is recommended to prevent dispersion of the contaminant into the workroom air.

Personal Respirators (NIOSH Approved) For conditions of use where exposure to the dust is apparent, a dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

Storage and Special Information SECTION 7

Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Isolate from oxidizing materials. Isolate from flammable materials.

\*\*\*\*\*
Mallinckrodt provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT MAKES NO REPRESENTATIONS, OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR TO THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.
\*\*\*\*\*
BENAC

Addendum to Material Safety Data Sheet

REGULATORY STATUS

Hazard Categories for SARA
Section 311/312 Reporting

Table with 5 columns: Acute, Chronic, Fire, Pressure, Reactive. Acute and Fire have an 'X' below them.



Product or Components of Product:	SARA EHS Sec. 302		SARA Sec. 313 Chemicals		CERCLA Sec. 103	RCRA Sec.
	RQ	TPQ	Name List	Chemical Category	RQ lbs	261.33
BENZOIC ACID (65-85-0)	No	No	No	No	No	No

SARA Section 302 EHS RQ:  
Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA Section 302 EHS TPQ:  
Threshold Planning Quantity of Extremely Hazardous substance. An asterisk (\*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.

SARA Section 313 Chemicals:  
Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.

CERCLA Sec. 103:  
Comprehensive Environmental Response, Compensation and Liability Act (Superfund) Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4

RCRA:  
Resource Conservation and Recovery Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33

BENAC

BENZOIC ACID