

Common Name: **BENZOIC ACID**

Synonyms: Benzenecarboxylic Acid; Benzoate; Carboxybenzene

CAS No: 65-85-0

 Molecular Formula: C₇H₆O₂

RTK Substance No: 0209

Description: White, crystalline powder with a faint, pleasant odor

HAZARD DATA

| Hazard Rating | Firefighting | Reactivity |
|--|--|--|
| 1 - Health 1 - Fire 0 - Reactivity DOT#: UN 3077 ERG Guide #: 171 Hazard Class: 9 (Miscellaneous Hazardous Materials) | Benzoic Acid may burn, but does not readily ignite. Use dry chemical, CO ₂ , water spray or foam as extinguishing agents. Water or foam may cause frothing. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Phenol</i> and <i>Benzene</i> . Use water spray to keep fire-exposed containers cool. Vapor from <i>molten Benzoic Acid</i> may form explosive mixtures. | Benzoic Acid is not compatible with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE) and STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE). Water solutions of Benzoic Acid can react with METALS to form flammable and explosive <i>Hydrogen gas</i> . |

SPILL/LEAKS

Isolation Distance:

Spill: 25 meters (75 feet)

Fire: 800 meters (1/2 mile)

Moisten spilled material first or use a HEPA-filter vacuum for clean-up and place into sealed containers for disposal.

DO NOT wash into sewer.

Benzoic Acid may damage the environment.

PHYSICAL PROPERTIES

Odor Threshold: Faint, pleasant odor

Flash Point: 250°F (121°C)

Auto Ignition Temp: 1,058°F (570°C)

Vapor Density: 4.2 (air = 1)

Vapor Pressure: 1 mm Hg at 205°F (96°C)

Specific Gravity: 1.3 (water = 1)

Water Solubility: Slightly soluble

Boiling Point: 482°F (250°C)

Melting Point: 252°F (122°C)

Molecular Weight: 122.1

EXPOSURE LIMITS

The Protective Action Criteria values are:

 PAC-1 = 12.5 mg/m³

 PAC-2 = 75 mg/m³

 PAC-3 = 400 mg/m³

PROTECTIVE EQUIPMENT

Gloves: Butyl and Neoprene

Coveralls: Tychem® BR, Responder® and TK; and Trelchem® HPS and VPS (>8-hr breakthrough for *Acids, Carboxylic*)

Respirator: >12.5 mg/m³ - SCBA

HEALTH EFFECTS

Eyes: Irritation and possible damage

Skin: Irritation, rash, redness and burning feeling on contact

Inhalation: Nose, throat and lung irritation with coughing, wheezing and shortness of breath

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn. Seek medical attention.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water. Seek medical attention.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer promptly to a medical facility.