



MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: Benzoic acid

MSDS DATE: 19 May, 2011

Notice

NSF Reference Standards are for test and assay use only and are not intended for human or animal consumption. This document communicates information relating to test and assay use only and may not be applicable for any unauthorized use.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Benzoic acid
Catalog Code: RS1-0008
Synonym: Benzoic acid
Chemical Formula: C_6H_5COOH
CAS #: 65-85-0

Contact Information:

NSF International
789 N. Dixboro Road
Ann Arbor, MI 48113-0140, USA
Toll Free (USA): 800-NSF-MARK (800-673-6275)
Telephone: (+1) 734-769-8010
Fax: (+1) 734-769-0109
www.nsf-rs.org

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Name: Benzoic acid

CAS#: 65-85-0

% by Weight: 100%

Toxicological Data on Ingredients:

LD50 (mouse): 1940 mg/ kg, LD50 (rat): 1700 mg/ kg

SECTION 3: HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).



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Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available

MUTAGENIC EFFECTS: Not available

TERATOGENIC EFFECTS: Not available

DEVELOPMENTAL TOXICITY: Not available

Benzoic acid is toxic to lungs, the nervous system, mucous membranes. Repeated or prolonged exposure to benzoic acid can produce target organ damage.

SECTION 4: FIRST AID MEASURES

Eye Contact:

Check for and remove contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention.

Skin Contact:

In case of contact, immediately wash skin with non-abrasive soap and plenty of water. Cover the irritated skin with an emollient. Seek medical attention if irritation develops.

Serious Skin Contact:

Wash with soap and cover with antimicrobial cream. Immediately seek medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing give artificial respiration. Seek medical attention.

Serious Inhalation:

Not available

Ingestion:

Do not induce vomiting. Loosen tight clothing. If a large quantity of benzoic acid is swallowed, seek medical attention immediately.

Serious Ingestion: Not available.

SECTION 5: FIRE-FIGHTING MEASURES

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: 574°C

Flammable Limits: Not available.

Flash Points: Closed Cup 121°C

Products of Combustion: These products are carbon oxides (CO, CO₂)

Special Remarks on Explosion Hazards: Not available.



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Fire Hazards in Presence of Various Substances: Not Available

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Special Remarks on Fire Hazards: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary neutralize the residue with a dilute solution of sodium carbonate. After powder clean up, spread water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use appropriate tools to put the material into a suitable waste disposal container. If necessary neutralize the residue with a dilute solution of sodium carbonate. After powder clean up, spread water on the contaminated surface and dispose of according to local and regional authority requirements.

SECTION 7: HANDLING AND STORAGE

Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:



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If laboratory operations generate dust, fume or mist, use local exhaust ventilation or other appropriate engineering controls to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Solid.

Odor: Not Available

Taste: Not Available

Molecular Weight: 122.12 g/mol

Color: White

pH (1% soln/water): 3 [acidic]

Boiling Point: 249.2°C

Melting Point: 122.4°C

Critical Temperature: Not available

Specific Gravity: 1.2659

Vapor Pressure: Not applicable.

Vapor Density: 4.21

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Benzoic acid is equally soluble in oil and water.

Ionicity (in Water): Not available.

Dispersion Properties: Not Available

Solubility: Very slightly soluble in cold water.

SECTION 10: STABILITY AND REACTIVITY

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Not available.



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Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Eye contact, Inhalation. Ingestion.
Toxicity to Animals: Acute oral toxicity (LD50):1700 mg/kg [Rat], acute dermal toxicity (LD50) 10000 mg/kg [Rabbit]

Chronic effects on humans: Causes damage to lungs, the nervous system, mucous membranes.

Other Toxic Effects on Humans:
Hazardous in case of skin contact, irritant, of ingestion, of inhalation.
Slightly hazardous in case of skin contact (permeator).

Special Remarks on Toxicity to Animals:
Not available.

Special Remarks on Chronic Effects on Humans:
Not available.

Special Remarks on other Toxic Effects on Humans:
Not available.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.
BOD5 and COD: Not available.
Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation:
The products of degradation are more toxic than the product itself.
Special Remarks on the Products of Biodegradation: Not Available

SECTION 13: DISPOSAL CONSIDERATIONS



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Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Classification: Not a DOT controlled material in the United States

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

SECTION 15: REGULATORY INFORMATION

Federal and State Regulations: TSCA 8(b) inventory: Benzoic acid

Other Regulations: OSHA; Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

Other Classifications:

WHMIS (Canada): Class D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC):

R22 – Harmful if swallowed. R36/38 – Irritating to eyes and skin.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.



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SECTION 16: OTHER INFORMATION

References: Not available.

Other Special Considerations: Not available.

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