



# Material Safety Data Sheet

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## BENZOCAINE

Catalog Number: 1054000

Package Size: 500 mg

Revision Date:

October 12, 2000

EMERGENCY OVERVIEW - This material is irritating to the skin.

### SECTION 1 - IDENTIFICATION

**Common Name:** Benzocaine

**Formula:** C<sub>9</sub>H<sub>11</sub>NO<sub>2</sub>

**Synonym:** Ethyl aminobenzoate

**Chemical Name:** Benzoic acid, 4-amino-, ethyl ester

**CAS Number:** 94-09-7

**RTECS Number:** DG2450000

**Chemical Family:** An Aromatic carboxylic ester

**Therapeutic Category:** Anesthetic (topical)

### SECTION 2 - INGREDIENT INFORMATION

Principle Components

Percent

Exposure Limits

Benzocaine

Pure Material

n/f

### SECTION 3 - HEALTH HAZARD INFORMATION

**Usual Adult Dose:** The usual adult dose of benzocaine is as a 7.5 to 20% solution applied topically to the gums, anus, or skin. It is also used as a 10 mg oral lozenge.

**Adverse Effects:** The therapeutic use of this material is meant to cause numbness and limit sensation. Adverse effects following topical application may include skin rash; redness; itching or hives; large, hive-like swellings in mouth or throat; and burning, stinging, swelling, or tenderness at site of contact. Possible allergic reaction to material if inhaled, ingested or in contact with skin.

**Overdose Effects:** Overdose effects of local anesthetics following absorption into the body may include increased sweating;

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low blood pressure; pale skin; slow or irregular heartbeat which may lead to cardiac arrest; blurred vision; confusion; convulsions; dizziness or lightheadedness; drowsiness; feeling hot, cold, or numb; ringing in ears; shivering; anxiety; difficulty in breathing on exertion; headache; and tiredness or weakness.

**Acute:** Eye, skin, gastrointestinal and/or respiratory tract irritation, and possible contact sensitization.

**Chronic:** Possible hypersensitization.

**Inhalation:** May cause irritation. Remove to fresh air.

**Eye:** May cause irritation. Flush with copious quantities of water.

**Skin:** May cause irritation, numbness, and contact dermatitis. Flush with copious quantities of water. Effects begin in 1 minute with a duration of 15 - 20 minutes.

**Ingestion:** May cause irritation and toxicity. Flush out mouth with water.

## Medical Conditions

**Aggravated by Exposure:** Hypersensitivity to material.

**Cross Sensitivity:** Persons sensitive to para-aminobenzoic acids, parabens, paraphenylenediamine, or other ester derivatives may be sensitive to this material also.

**Pregnancy Comments:** Adequate and well-controlled pregnancy studies in humans or animals have not been done.

**Pregnancy Category:** C (benzocaine gel)

## SECTION 4 - FIRST AID MEASURES

**General:** Remove from exposure. Remove contaminated clothing. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. If person is not breathing give artificial respiration. If breathing is difficult give oxygen. Obtain medical attention.

**Overdose Treatment:** Treatment for overdose resulting from absorption of large quantities consists of the following:

1. For circulatory depression - Administer a vasopressor and intravenous fluids.
2. For seizures - Administer a benzodiazepine anticonvulsant, keeping in mind that intravenously administered benzodiazepines may cause respiratory and circulatory depression, especially when administered rapidly. Medications and equipment needed for support of respiration and for resuscitation must be immediately available.
3. For methemoglobinemia - Administer methylene blue and/or ascorbic acid.
4. Secure and maintain a patent airway, administer 100% oxygen, and institute assisted or controlled respiration as required. Endotracheal intubation may be necessary. [USP DI 20th ed. 2000]

## SECTION 5 - TOXICOLOGICAL INFORMATION

**Oral Rat:** LD50: 3042 mg/kg

**Oral Mouse:** LD50: 2500 mg/kg

**Irritancy Data:** [RTECS] - Guinea Pig/Skin: mild

**Target Organ(s):** Central and peripheral nervous system

**Listed as a Carcinogen?** **NTP:** No **IARC:** No **OSHA:** No

**Other:** No

## SECTION 6 - FIREFIGHTING MEASURES

**Flash Point:** n/f

**Upper Flammable Limit:** n/f

**Auto-Ignition Temperature:** n/f

**Lower Flammable Limit:** n/f

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- Extinguisher Media:** Water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials.
- Fire and Explosion Hazards:** This material is assumed to be combustible. As with all dry powders it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential buildup of static electricity.
- Firefighting Procedures:** As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.

## SECTION 7 - PHYSICAL HAZARDS

- Conditions to Avoid:** Avoid moisture.
- Incompatibilities:** Strong oxidizing or reducing agents, acids (especially perchloric and nitric), and bases.
- Decomposition Products:** When heated to decomposition material emits highly toxic fumes of NO<sub>x</sub>. Emits toxic fumes under fire conditions.
- Stable?** Yes                      **Hazardous Polymerization?** No

## SECTION 8 - HANDLING / SPILL / DISPOSAL MEASURES

- Handling:** As a general rule, when handling USP Reference Standards avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Wash thoroughly after handling.
- Storage:** Store in tight container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity.
- Spill Response:** Wear approved respiratory protection, chemically compatible gloves and protective clothing. Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately labelled container for disposal. Wash spill site.
- Disposal:** Dispose of waste in accordance with all applicable Federal, State and local laws.

## SECTION 9 - EXPOSURE CONTROLS / PERSONAL PROTECTION

- Respiratory Protection:** When working with small quantities in a well-ventilated area, respiratory protection may not be required. The use of an approved dust mask is recommended.
- Ventilation:** No special ventilation requirements.
- Gloves:** Rubber
- Eye Protection:** Safety Glasses
- Protective Clothing:** Protect exposed skin.

## SECTION 10 - PHYSICAL AND CHEMICAL PROPERTIES

**NOTE: The data reported below is general information, and is not specific to the USP Reference Standard Lot provided!**

- Appearance and Odor:** White crystalline powder; odorless.
- Melting Point:** 88 - 92° C
- Solubility in Water:** Very slightly soluble                      **Vapor Density:** n/f
- Boiling Point:** n/f    **Evaporation Rate:** n/f
- Specific Gravity:** n/f    **Reactivity in Water:** n/f
- Vapor Pressure:** n/f    **% Volatile by Volume:** n/f