



Material Safety Data Sheet

12601 Twinbrook Parkway,
Rockville, MD 20852 USA

Phone Calls: 301-816-8129
8 a.m. to 5 p.m. EST Mon. - Fri.

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SALICYLIC ACID

Catalog Number: 1609002

Revision Date:

October 7, 2005

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Common Name: Salicylic Acid

Manufacturer: U. S. Pharmacopeia

Responsible Party: Reference Standards Technical Services

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Product Use: USP Reference Standards and Authentic Substances are used for chemical tests and assays in analytical, clinical, pharmaceutical, and research laboratories.

SECTION 2 - HAZARD INFORMATION

EMERGENCY OVERVIEW - Irritant.

Adverse Effects: Adverse effects of salicylate ingestion may include gastrointestinal irritation. Possible allergic reaction to material if inhaled, ingested or in contact with skin.

Overdose Effects: Overdose effects may include ringing or buzzing in ears or trouble hearing, confusion, diarrhea, stomach pain, headache, dizziness, severe drowsiness, fast or deep breathing, continuing nausea or vomiting, uncontrollable hand movements, increased thirst, and vision problems. Signs of severe overdose may include bloody urine; convulsions; hallucinations; severe nervousness, excitement, or confusion; trouble breathing; and fever. Death may occur from respiratory failure or cardiovascular collapse while in a state of coma.

Acute: Eye, skin, gastrointestinal and/or respiratory tract irritation.

Chronic: Possible hypersensitization, salicylism (overdose effects), and kidney and liver damage.

Medical Conditions Aggravated by Exposure: Hypersensitivity to material, anemia, hemophilia or other bleeding problems, ulcers, and impaired liver or kidney function.

Cross Sensitivity: Persons sensitive to one salicylate, including methyl salicylate, or to nonsteroidal anti-inflammatory agents or related materials may be sensitive to this material also. Individuals sensitive to aspirin may not necessarily be sensitive to nonacetylated salicylates.

Target Organs: n/f

For additional information on toxicity, see Section 11.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

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Common Name: Salicylic Acid

Formula: C₇H₆O₃

Synonym: n/f

Chemical Name: Benzoic acid, 2-hydroxy-

CAS: 69-72-7

RTECS Number: VO0525000

Chemical Family: Aromatic carboxylic acid (Salicylate)

Therapeutic Category: Keratolytic

Composition: Pure Material

SECTION 4 - FIRST AID MEASURES

Inhalation: Causes irritation. Avoid inhalation. Remove to fresh air.

Eye: Causes irritation. Avoid contact. Flush with copious quantities of water for 15 minutes.

Skin: Causes irritation. Material is readily absorbed through the skin, and may be absorbed sufficiently to cause signs of overdose. Avoid contact. Flush with copious quantities of soap and water.

Ingestion: Causes irritation and toxicity. Avoid ingestion. Flush out mouth with water.

General First Aid Procedures: 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.

Note to Physicians

Overdose Treatment: Treatment of salicylate overdose should be symptomatic and supportive and may include the following:

1. If the material was ingested, decrease absorption by induced vomiting (guard against aspiration) or gastric lavage. Administer activated charcoal.
2. Induce forced alkaline diuresis to increase salicylate excretion. If acetazolamide is used, take precautions to prevent systemic metabolic acidosis, such as concurrent administration of an alkaline intravenous solution (e.g., one containing sodium bicarbonate or sodium lactate.) Oral bicarbonate may increase salicylate absorption and is not recommended.
3. Institute exchange transfusion, hemodialysis, peritoneal dialysis, or hemoperfusion as needed in severe overdose.
4. Administer vitamin K1 or blood transfusion if needed to treat hemorrhaging.
5. Monitor for pulmonary edema and convulsions; monitor serum salicylate concentration until it is apparent that concentration is decreasing to non-toxic range.
6. Correct hyperthermia; fluid, electrolyte, and acid-base imbalances; ketosis; and plasma glucose concentrations as needed. [USP DI 2005]

SECTION 5 - FIREFIGHTING MEASURES

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 6 - ACCIDENTAL RELEASE MEASURES

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.

SECTION 7 - HANDLING AND STORAGE

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.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls: Engineering controls such as exhaust ventilation are recommended.

Respiratory Protection: Use a NIOSH-approved respirator, if it is determined to be necessary by an industrial hygiene survey involving air monitoring. In the event that a respirator is not required, an approved dust mask should be used.

Gloves: Chemically compatible

Eye Protection: Safety goggles or glasses

Protective Clothing: Protect exposed skin.

Exposure Limits: n/f

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Properties as indicated on the MSDS are general and not necessarily specific to the USP Reference Standard Lot provided.

Appearance and Odor: White crystals or fluffy, white crystalline powder; almost odorless. When prepared from natural methyl salicylate, it may have a slightly yellow or pink tint.

Odor Threshold: n/f

pH: 2.4 (saturated aqueous solution)

Melting Range: 157 - 161° C

Boiling Point: n/f

Flash Point: 157° C (CC)

Autoignition Temperature: 540° C

Evaporation Rate: n/f

Upper Flammability Limit: n/f

Lower Flammability Limit: n/f

Vapor Pressure: 8.2X10⁻⁵ mm Hg (at 25° C)

Vapor Density: 4.8 (air=1)

Specific Gravity: 1.443 (at 20° C/4° C)

Solubility in Water: Slightly soluble

Fat Solubility: n/f

Other Solubility: Slightly soluble in benzene; freely soluble in alcohol and in ether; soluble in boiling water; sparingly soluble in chloroform.

Partition Coefficient: n-octanol/water: n/f

Percent Volatile: 0

Reactivity in Water: n/f

Explosive Properties: n/f

Oxidizing Properties: n/f

Formula: C₇H₆O₃

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Molecular Weight: 138.12

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SECTION 10 - STABILITY AND REACTIVITY

Conditions to Avoid: Avoid exposure to moisture.

Incompatibilities: Iron salts, spirit nitrous ether, lead acetate, iodine, and oxidizing agents.

Decomposition Products: When heated to decomposition material emits acrid smoke and irritating fumes. Emits toxic fumes of phenol under fire conditions.

Stable? Yes **Hazardous Polymerization?** No

SECTION 11 - TOXICOLOGICAL PROPERTIES

Oral Rat: LD50: 891 mg/kg

Oral Mouse: LD50: 480 mg/kg

Other Toxicity Data: Inhalation Rat: LC50: >900 mg/m³/1 hr
Skin Rabbit: LD50: >10 grams/kg
Skin Rat: LD50: >2 grams
Oral Rabbit: LD50: 1300 mg/kg
Oral Cat: LD50: 400 mg/kg

Irritancy Data: [RTECS] - Rabbit/Skin: mild; Rabbit/Eye: severe

Corrosivity: n/f

Sensitization Data: n/f

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

Other Carcinogenicity Data: No

Mutagenicity Data: Salicylic acid has been shown to lack mutagenic potential in the Ames Salmonella test.

Reproductive and Developmental Effects: Although pregnancy studies in humans have not been done, studies in rats and monkeys have shown that salicylic acid causes birth defects when given orally.

SECTION 12 - ECOLOGICAL INFORMATION

Ecological Information: n/f

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal: Dispose of waste in accordance with all applicable Federal, State and local laws.

SECTION 14 - TRANSPORT INFORMATION

Shipping Name: n/f

Class: n/f

UN Number: n/f

Packing Group: n/f

Additional Transport Information: n/f

SECTION 15 - REGULATORY INFORMATION

U.S. Regulatory Information: n/f

International Regulatory Information: EINECS # 200-712-3

SECTION 16 - OTHER INFORMATION

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