



## MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: Salicylic acid

MSDS DATE: 06 Jun, 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: Salicylic acid  
Catalog Code: RS1-0007  
Synonym: 2 – Hydroxybenzoic acid  
Chemical Formula:  $C_7H_6O_3$   
CAS #: 60-72-7

#### Contact Information:

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#### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Name: Salicylic acid

CAS#: 60-72-7

% by Weight: 100%

#### Toxicological Data on Ingredients:

ORAL LD50 (mouse): 891 mg/ kg (Rat). 480 mg/kg (mouse). 1300 mg/kg (rabbit)

#### SECTION 3: HAZARDS IDENTIFICATION

Potential Acute Health Effects:



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Hazardous in case of skin contact (irritant), of eye contact (irritant) of ingestion, or inhalation (lung irritant). Slightly hazardous in case of skin contact (permeator). Severe overexposure can result in death.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available

MUTAGENIC EFFECTS: Mutagenic for bacteria/ yeast

TERATOGENIC EFFECTS: Not available

DEVELOPMENTAL TOXICITY: Classified reproductive system toxin – female. Possible developmental toxin. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in on or many human organs.

### 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. Cold water may be used. Seek immediate 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.

**Serious Skin Contact:**

Wash with a disinfecting soap and cover exposed area with anti-bacterial cream. Seek immediate medical attention.

**Inhalation:**

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

**Serious Inhalation:**

Not available.

**Ingestion:**

Do not induce vomiting. Loosen tight clothing. If a large quantity of salicylic 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: 545 degrees C (1013 degrees F)

Flammable Limits: Lower 1.1%

Flash Points: Not available Closed Cup 157 degrees C (314.6 degrees F)



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Products of Combustion: These products are carbon oxides (CO, CO<sub>2</sub>)

Special Remarks on Explosion Hazards: Dust – Air mixtures may pose an explosion hazard.

Fire Hazards in Presence of Various Substances: Slightly flammable to flammable in presence of heat.

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. Finish cleaning by spreading water on the contaminated surface and dispose of according to local/ regional regulatory authority requirements.

Large Spill:

Poisonous solid. Stop leaks if without risk. Do not touch spilled material. Prevent entry into sewers, basement, or confined areas. Call for assistance on disposal.

### SECTION 7: HANDLING AND STORAGE

Precautions:

Keep away from heat and sources of ignition. Keep container dry. Ground all material containing material. Do not ingest. Do not breath dust. In case of insufficient ventilatin, wear suitable respiratory equipment. If ingested, seek medical advise immediately. Avoid contact with skin and eyes.

Storage:

Light and moisture sensitive. Store in light resistant containers. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 23 degrees C.



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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Engineering Controls:

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, crystalline granules.

Odor: Odorless

Taste: Sweet. Aftertaste may be acrid

Molecular Weight: 138.12 g/mol

Color: White

pH (1% soln/water): Not Available

Boiling Point: 211 degrees C

Melting Point: 159°C (318.2°F)

Critical Temperature: Not available

Specific Gravity: 1.443

Vapor Pressure: Not applicable.

Vapor Density: 4.8

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: 2.3 this product is more soluble in oil

Ionicity (in Water): Not available.

Dispersion Properties: Not Available

Solubility: Soluble in acetone. Partially soluble in cold water. Very slightly soluble in hot water.



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### SECTION 10: STABILITY AND REACTIVITY

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excessive heat, excessive dust generation, incompatible materials, dust-air mixtures.

Incompatibility with various substances: Reactive with oxidizing agents and moisture.

Corrosivity: Non corrosive in presence of glass.

Special Remarks on Reactivity: Light, moisture, iodine, lead acetate.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

### SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation. Ingestion. Absorbed through skin.

Toxicity to Animals:

Acute oral (LD50: 480 mg/kg [mouse]

Warning, the LD50 values estimated below were on the basis of a 4 hour exposure.

Acute toxicity of dust (LC50): 900 mg/m<sup>3</sup> in 1 hour [Rat]

Chronic effects on humans:

Mutagenic effects: Mutagenic for bacteria/ yeast

Developmental Toxicity: Classified reproductive hazard toxin (female)

Possible developmental toxin.

Other Toxic Effects on Humans:

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

Special Remarks on Toxicity to Animals:

Not available

Special Remarks on Chronic Effects on Humans:

May effect genetic material (mutagenicity) based on animal studies. May cause adwers reproductive effects. Eratogenic, Embryotoxic, and/or foetotoxic in animal studies. Transferred into maternal breast milk in Humans.

Special Remarks on other Toxic Effects on Humans:



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### Acute Potential Health Effects:

Skin: May be harmful through absorption, may cause irritation.  
Cardiovascular System: May increase blood pressure.  
Metabolism: May increase body temperature.  
Eye: Causes eye irritation  
Inhalation: Causes irritation of the respiratory system (coughing, difficulty breathing)  
Ingestion: May be harmful if swallowed in large quantities. Causes GI irritation.  
Chronic potential Health Effects: Possible hypersensitization

May effect behavior (muscle weakness and general depressed activity, confusion)  
May cause ringing in the ears, rapid breathing, sweating, and possible kidney damage.  
Severe overexposure may result in CNS stimulant followed by depression.  
May cause ringing in the ears, dizziness, nausea, vomiting.

### 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 less toxic than the product itself.  
Special Remarks on the Products of Biodegradation: Not Available

### SECTION 13: DISPOSAL CONSIDERATIONS

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

### SECTION 14: TRANSPORT INFORMATION

DOT Classification: Salicylic acid is not a DOT controlled material (US)  
Identification: Not applicable.  
Special Provisions for Transport: Not applicable.

### SECTION 15: REGULATORY INFORMATION



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Federal and State Regulations:

TSCA 8(b) inventory; salicylic acid.

Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

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

DSCL (EEC):

R22 – Harmful if swallowed. R37/38 – irritating to respiratory system and skin. R41 Risk of serious damage to eyes. S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39 – Wear suitable gloves and eye/ face protection.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

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

Health: 0

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.

### SECTION 16: OTHER INFORMATION

References: Not available.

Other Special Considerations: Not available.



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