Section 1 - Product and Company Information

Product Name: SALICYLIC ACID
Product Number: 84215
Brand: FLUKA
Company: Sigma-Aldrich
Address: 3050 Spruce Street
          SAINT LOUIS MO 63103 US
Technical Phone: 800-325-5832
Fax: 800-325-5052
Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

**Substance Name**: SALICYLIC ACID
**CAS #**: 69-72-7

- **Formula**: C7H6O3
- **Synonyms**: Acido o-idrossibenzoico (Italian) * Acido salicilico (Italian) * Benzoic acid, 2-hydroxy- * o-Hydroxybenzoic acid * 2-Hydroxybenzoic acid *
  Keralyt * Kyselina 2-hydroxybenzoova (Czech) * Kyselina salicylova (Czech) * Orthohydroxybenzoic acid * Retarder W * SA * SAX * Verrugon

- **RTECS Number**: VO0525000

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Harmful.
Harmful if swallowed. Risk of serious damage to eyes.
Target organ(s): Central nervous system. Blood.

**HMIS RATING**

- HEALTH: 2*
- FLAMMABILITY: 1
- REACTIVITY: 1

**NFPA RATING**

- HEALTH: 2
- FLAMMABILITY: 1
- REACTIVITY: 1

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

**ORAL EXPOSURE**

If swallowed, wash out mouth with water provided person is conscious. Call a physician.
INHALATION EXPOSURE
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT
314.6 °F   157 °C   Method: closed cup

EXPLOSION LIMITS
Lower: 1.1 %

AUTOIGNITION TEMP
570 °C

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING
User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE
Suitable: Keep tightly closed.

SPECIAL REQUIREMENTS
Light sensitive.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.
Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Fine crystals</td>
<td></td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>138.12 AMU</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>2.4</td>
<td>20 °C</td>
</tr>
<tr>
<td>BP/BP Range</td>
<td>211 °C</td>
<td>20 mmHg</td>
</tr>
<tr>
<td>MP/MP Range</td>
<td>158 °C</td>
<td></td>
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<tr>
<td>Freezing Point</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>1 mmHg</td>
<td>114 °C</td>
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<tr>
<td>Vapor Density</td>
<td>4.8 g/l</td>
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<tr>
<td>Saturated Vapor Conc.</td>
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<tr>
<td>SG/Density</td>
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<td></td>
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<tr>
<td>Bulk Density</td>
<td>800 kg/l</td>
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<tr>
<td>Odor Threshold</td>
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<td></td>
</tr>
<tr>
<td>Volatile%</td>
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<td></td>
</tr>
<tr>
<td>VOC Content</td>
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<td></td>
</tr>
<tr>
<td>Water Content</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Solvent Content</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
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</tr>
<tr>
<td>Viscosity</td>
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<tr>
<td>Surface Tension</td>
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</tr>
<tr>
<td>Partition Coefficient</td>
<td>Log Kow: 2.21</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temp.</td>
<td>N/A</td>
<td></td>
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<tr>
<td>Flash Point</td>
<td>314.6 °F 157 °C</td>
<td>Method: closed cup</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>Lower: 1.1 %</td>
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</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Autoignition Temp</td>
<td>570 °C</td>
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<tr>
<td>Refractive Index</td>
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<td>Optical Rotation</td>
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<td></td>
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<tr>
<td>Miscellaneous Data</td>
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<td></td>
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<tr>
<td>Solubility</td>
<td>Solvent: Clear 0.1 g/ml EtOH 96%</td>
<td></td>
</tr>
</tbody>
</table>

N/A = not available

Section 10 - Stability and Reactivity

STABILITY
Stable: Stable.
Conditions to Avoid: Light.
Materials to Avoid: Strong oxidizing agents, Strong bases, Iodine Iron and iron salts.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: Causes severe eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: Harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)
Central nervous system. Blood.

TOXICITY DATA

Oral
Rat
891 mg/kg
LD50

Inhalation
Rat
> 900 mg/m3
LC50

Skin
Rat
> 2000 mg/kg
LD50
Remarks: Skin and Appendages: Other: Hair. Liver: Other changes.

Intraperitoneal
Rat
157 MG/KG
LD50

Oral
Mouse
480 mg/kg
LD50

Intraperitoneal
Mouse
300 MG/KG
LD50
Intravenous
Mouse
184 MG/KG
LD50
Remarks: Behavioral: Convulsions or effect on seizure threshold.

Oral
Cat
400 mg/kg
LD50

Oral
Rabbit
1300 mg/kg
LD50

Skin
Rabbit
> 10000 mg/kg
LD50

Inhalation
Mammal
> 300 mg/m3
LC50

IRRITATION DATA

Skin
Rabbit
500 mg
24H
Remarks: Mild irritation effect

Eyes
Rabbit
100 mg
Remarks: Severe irritation effect

CHRONIC EXPOSURE - TERATOGEN

Species: Rat
Dose: 1050 MG/KG
Route of Application: Oral
Exposure Time: (8-14D PREG)

Species: Rat
Dose: 700 MG/KG
Route of Application: Oral
Exposure Time: (8-14D PREG)
Result: Specific Developmental Abnormalities: Musculoskeletal system. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Species: Rat
Dose: 350 MG/KG
Route of Application: Oral
Exposure Time: (8-14D PREG)
Result: Effects on Embryo or Fetus: Extra embryonic structures (e.g., placenta, umbilical cord).

Species: Mouse
Dose: 500 MG/KG
Route of Application: Oral
Exposure Time: (9D PREG)
Result: Specific Developmental Abnormalities: Musculoskeletal system.

CHRONIC EXPOSURE - MUTAGEN

Species: Mouse
Route: Oral
Dose: 100 MG/KG
Mutation test: DNA inhibition
Mutation test: Histidine reversion (Ames)

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat
Dose: 40 MG/KG
Route of Application: Oral
Exposure Time: (20-21D PREG)
Result: Maternal Effects: Parturition.

Species: Rat
Dose: 1050 MG/KG
Route of Application: Oral
Exposure Time: (8-14D PREG)
Result: Maternal Effects: Uterus, cervix, vagina. Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Fertility: Litter size (e.g.; # fetuses per litter; measured before birth).

Species: Rat
Dose: 380 MG/KG
Route of Application: Subcutaneous
Exposure Time: (9D PREG)
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Other developmental abnormalities.

Species: Mouse
Dose: 1 GM/KG
Route of Application: Oral
Exposure Time: (17D PREG)
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Section 12 - Ecological Information

ACUTE ECOTOXICITY TESTS
Test Type: EC50 Daphnia
Species: Daphnia magna
Time: 24 h
Value: 105 mg/l

Test Type: LC50 Fish
Species: Leuciscus idus
Value: 90 mg/l

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION
Symbol of Danger: Xn
Indication of Danger: Harmful.
R: 22-41
Risk Statements: Harmful if swallowed. Risk of serious damage to eyes.
S: 26-39
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection.

US CLASSIFICATION AND LABEL TEXT
Indication of Danger: Harmful.
Risk Statements: Harmful if swallowed. Risk of serious damage to eyes.
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No
TSCA INVENTORY ITEM: Yes

CANADA REGULAR INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

Section 16 - Other Information
DISCLAIMER
For R&D use only. Not for drug, household or other uses.

WARRANTY
The above information is believed to be correct but does not
purport to be all inclusive and shall be used only as a guide. The
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