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PRODUCT NAME: SALICYLIC ACID USP
MSDS NUMBER: P21141VS
DATE ISSUED: 08/23/2006
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ISSUED BY: 008980

1. PRODUCT DESCRIPTION

Emergency Phone Numbers:
FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CON-
TACT:
CHEMTREC (800-424-9300 within the United States or 703-527-3887 for
international collect calls).

Chemical Name or Synonym:
SALICYLIC ACID; BENZOIC ACID, 2-HYDROXY—

Molecular Formula:
C7H6O3

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Reg Number	OSHA Hazard	Percentage
BENZOIC ACID, 2-HYDROXY-	69-72-7	Y	99.5
PHENOL	108-95-2	Y	100 PPM MAX



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3. HAZARDS IDENTIFICATION

A. EMERGENCY OVERVIEW:

Physical Appearance and Odor:

white crystalline or powder solid, odorless.

Warning Statements:

WARNING!! SEVERE EYE IRRITANT. SKIN AND RESPIRATORY TRACT IRRITANT. HARMFUL IF SWALLOWED. MODERATE TO SEVERE DUST EXPLOSION RISK. CAN ADVERSELY AFFECT THE KIDNEYS, LIVER, MAY CAUSE ALLERGIC REACTIONS IN ASPIRIN-SENSITIVE PEOPLE.

BASED UPON SEVERAL ANIMAL STUDIES, THIS PRODUCT MAY CAUSE REPRODUCTIVE AND DEVELOPMENTAL ABNORMALITIES.

B. POTENTIAL HEALTH EFFECTS:

Acute Eye:

Severe irritant. Causes redness, irritation, tearing.

Acute Skin:

May be harmful if absorbed through the skin. May produce symptoms similar to those from ingestion. Causes irritation, Skin absorption may enhance the symptoms of ingestion.

Acute Inhalation:

May be harmful if inhaled. May cause coughing, sneezing, shortness of breath, upper respiratory tract irritation, dizziness, headache, increased heart rate, rapid breathing, nausea, vomiting, confusion.

Acute Ingestion:

Harmful if ingested. May cause nausea, vomiting, abdominal pain, ringing in ears, mental confusion, rapid breathing, increased heart rate, profuse sweating, kidney damage, liver damage, Some people may be hypersensitive to this product.

Chronic Effects:

This product does not contain any ingredient designated by IARC, NTP, AC-GIH or OSHA as probable or suspected human carcinogens. Prolonged contact can cause kidney damage, liver damage, chronic damage to stomach, involuntary shaking, anemia, internal bleeding, Based upon several animal studies, this product may cause reproductive and developmental abnormalities.



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4. FIRST AID MEASURES

FIRST AID MEASURES FOR ACCIDENTAL:

Eye Exposure:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Skin Exposure:

In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

Inhalation:

Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.

Ingestion:

Do not induce vomiting, unless directed to do so by a physician. If victim is conscious and alert, give 2-3 glasses of water to drink. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to further dilute the chemical. Also see Note To Physician.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE:

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

NOTES TO PHYSICIAN:

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that over-exposure to materials other than this product may have occurred.

MINIMIZE ABSORPTION: Remove salicylates by emesis with syrup of ipecac unless respiration is depressed. Do not use apomorphine. Delay absorption of the remaining poison by giving activated charcoal. If respiration is depressed, use airway-protected gastric lavage.

LABORATORY STUDIES: Determine serum salicylate levels, serum electrolytes, arterial blood gases, blood pH, coagulation studies, and renal function tests. Urine output should be done. Acid-base imbalance is common. In adults, respiratory alkalosis from hyperventilation and metabolic alkalosis from vomiting is common. In children, metabolic acidosis is often a significant problem.

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TREATMENT: In mild poisoning, with adequate urine output and no vomiting, give milk and fruit juice orally every hour up to a total of 100 ml/kg in the first 24 hours.

In severe poisoning, begin hydration in the first hour with intravenous fluid, 400 ml/square meter. A 5% dextrose solution containing sodium bicarbonate, 75 meq/l, is satisfactory. However, do not use bicarbonate if the victim is alkalotic. After the first hour, the same solution can be continued at one-third the initial rate until urine flow begins, dehydration is corrected, or evidence of renal insufficiency appears. After urine flow is established, add potassium 30 meq/l of administered fluid. Discontinue potassium when serum levels reach 5 meq/l. If renal function is adequate, fluid administration should be approximately 3 liter/square meter/24 hour.

In the presence of abnormal bleeding or hypoprothrombinemia, give phytonadione, 10 mg intramuscularly. Fresh blood or platelet transfusions may be necessary.

Do not give barbiturates, paraldehyde, morphine or other central nervous system depressants.

If renal function is impaired, dialysis must be used to remove salicylates. Reduce hyperpyrexia by tepid sponging. Do not use alcohol for sponging.

5. FIRE FIGHTING MEASURES FIRE HAZARD DATA:

Flash Point:

157 C (314 F). Flammability Class: WILL BURN.

Method Used:

Tagliabue Closed Cup

Flammability Limits (vol/vol %):	Lower:	Upper:
	No Data	No Data

Extinguishing Media:

Recommended: alcohol foam, dry chemical, carbon dioxide. Special Fire

Fighting Procedures:

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.



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Unusual Fire and Explosion Hazards:

Product will burn under fire conditions. As a powder or dust, this product (when mixed with air in critical proportions and in the presence of an ignition source) presents a moderate to high explosion hazard.

Hazardous Decomposition Materials (Under Fire Conditions):

phenol
oxides of carbon

Autoignition Temperature:

500 C (932 F)

Dust Explosivity Data:

Explosibility Index 1 to 10 Type of Explosion is Rated
STRONG.
Ignition Sensitivity No Data

Explosion Severity	No Data
Cloud Ignition Temp	490 C (914 F)
Mm Cloud IgnitionEnergy	< 5 milliJoules
Layer Ignition Temp	No Data
Max. Explosion Pressure	7.2 bars
Max. Rate of Pressure Rise	216 bars/second
Mm. Explosion Concentration	0.03 oz/ft3

6. ACCIDENTAL RELEASE MEASURES

Evacuation Procedures and Safety:

Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Containment of Spill:

Follow procedure described below under Cleanup and Disposal of Spill.

Cleanup and Disposal of Spill:

Shovel up into an appropriate closed container (see Section 7: Handling and Storage). Avoid creation of dusty conditions. Use non-sparking tools. Clean up residual material by washing area with water. Collect washings for disposal. Ventilate area.

Environmental and Regulatory Reporting:

Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.



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7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures:
Not Available

Handling:

Avoid direct or prolonged contact with skin and eyes. Avoid breathing dusts.

Do not ingest. This material is a pharmaceutical. Use the usual precautions associated with the handling of such products.

THIS PRODUCT PRESENTS A MODERATE TO SEVERE DUST EXPLOSION HAZARD. It is recommended that all dust control equipment and material transport systems involved in handling of this product contain explosion relief vents or explosion suppression system or an oxygen deficient environment. In addition, all conductive elements of the system that contact this material should be electrically bonded and grounded. This powder should not be flowed through non-conductive ducts or pipes. Use only appropriately classed electrical equipment.

Storage:

Store in tightly closed containers. Store in an area that is cool, dry, well-ventilated, away from ignition sources, isolated from all toxic and harmful substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Introductory Remarks:

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements. The following limits apply to this material, where, if indicated, S=skin and C=ceiling limit:



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PARTICULATES NOT OTHERWISE REGULATED BESPIRABLE FRACTION	Notes	TWA	STEL
OSHA		5 mg/cu m	
PAPTICULATES NOT OTHERWISE REGULATED TOTAL DUST	Notes	TWA	STEL
OSHA		15 mg/cu in	
PAPTICULATES, NOT OTHERWISE CLASSIFIED, RESPIRABLE PA.RTICULATE	Notes	TWA	STEL
ACGIH		3 mg/cu m	

Engineering Controls:

Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: local exhaust ventilation at the point of generation.

Respiratory Protection:

When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by the appropriate OSEA, WHMIS or ANSI standard(s): Air-purifying (half-mask/full-face) respirator with cartridges/canister approved for use against dusts, mists and fumes. Under conditions immediately dangerous to life or health, or emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape air supply unit or use a self-contained breathing apparatus unit.

Eye/Face Protection:

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area.



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Skin Protection:

Skin contact should be prevented through use of suitable protective clothing, gloves and footwear, selected with regard for use conditions and exposure potential. Consideration must be given both to durability as well as permeation resistance.

Work Practice Controls:

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

- (1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- (2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- (3) Wash exposed skin promptly to remove accidental splashes or contact with this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

Physical Appearance:

white crystalline or powder solid.

Odor:

odorless.

pH:

2.2 to 2.4 at 0.2 wt/wt%.

Specific Gravity:

0.8 at 20 C (68 F).

Water Solubility:

slightly soluble
0.2 wt/wt% at 25 C (77 F).

Melting Point Range:

158 to 161 C (316 to 322 F)

Boiling Point Range:

211 C (412 F) at 20 mmHg

Vapor Pressure:

1 mmHg at 114 C (237 F)

Vapor Density:

4.9



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Octanol/Water Partition Coefficient:
2.21

Molecular Weight:
138.13

10. STABILITY MID REACTIVITY

Chemical Stability:

This material is stable under normal handling and storage conditions described in Section 7.

Conditions To Be Avoided:

dusting conditions light
spark
static electricity extreme humidity

Materials/Chemicals To Be Avoided:

lead acetate iron salts iodine spirit nitrous ether

The Following Hazardous Decomposition Products Might Be Expected: Decomposition

Type: thermal phenol
oxides of carbon

Hazardous Polymerization Will Not Occur.

Avoid The Following To Inhibit Hazardous Polymerization:
not applicable

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation:

Toxicological Information and Interpretation
eye -eye irritation, rabbit.
Severely irritating.

Acute Skin Irritation:

Toxicological Information and Interpretation
skin -skin irritation, rabbit.
Irritating.

Acute Dermal Toxicity:

Toxicological Information and Interpretation
LD50 -lethal dose 50% of test species, > 10000 mg/kg, rabbit.
LD50 -lethal dose 50% of test species, > 2000 mg/kg, rat.

Acute Respiratory Irritation:

No test data found for product.



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Acute Inhalation Toxicity:

Toxicological Information and Interpretation

LC50 -lethal concentration 50% of test species, > 900 mg/cu rn/i hr, rat.

Acute Oral Toxicity:

Toxicological Information and Interpretation

LD50 -lethal dose 50% of test species, 891 mg/kg, rat.

LD50 -lethal dose 50% of test species, 480 mg/kg, mouse.

LD50 -lethal dose 50% of test species, 1300 mg/kg, rabbit.

LDL0 -lowest lethal dose, > 200 mg/kg, human. Estimated.

LDL0 -lowest lethal dose, < 500 mg/kg, human. Estimated.

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation:

Toxicological Information and Interpretation

eye -eye irritation, rabbit.

Severely irritating.

Acute Skin Irritation:

Toxicological Information and Interpretation

skin -skin irritation, rabbit.

Irritating.

Acute Dermal Toxicity:

Toxicological Information and Interpretation

LD50 -lethal dose 50% of test species, > 10000 mg/kg, rabbit.

LD50 -lethal dose 50% of test species, > 2000 mg/kg, rat.

Acute Respiratory Irritation:

No test data found for product.

Acute Inhalation Toxicity:

Toxicological Information and Interpretation

LC50 -lethal concentration 50% of test species, > 900 mg/cu rn/i hr, rat.

Acute Oral Toxicity:

Toxicological Information and Interpretation

LD50 lethal dose 50% of test species, 891 mg/kg, rat.

LD50 lethal dose 50% of test species, 480 mg/kg, mouse.

LD50 lethal dose 50% of test species, 1300 mg/kg, rabbit.

LDL0 lowest lethal dose, > 200 mg/kg, human. Estimated.

LDL0 lowest lethal dose, < 500 mg/kg, human. Estimated.

Chronic Toxicity:

This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens.

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Toxicological Information and Interpretation

- TERATOGENICITY, rat.

When injected intradermally: Positive.

- TERATOGENICITY, 0.4 %, rat.

In feeding studies, the following was observed: temporary body weight loss, salivation, piloerection, high mortality, growth retardation, in the fetus.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Ecotoxicological Information and Interpretation:

EC50 -effective concentration 50% of test species, 100 mg/L/72 hr, fresh water algae: *Scenedesmus subspicatus*.

EC50 -effective concentration 50% of test species, 180 mg/L/24 hr, *Daphnia*.

Chemical Fate Information:

Readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

EPA Hazardous Waste 2 NO

14. TRANSPORTATION INFORMATION

Transportation Status: IMPORTANT! Statements below provide additional data on listed DOT classification.

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

US Department of Transportation

Shipping Name:

NOT REGULATED



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15. REGULATORY INFORMATION

Inventory Status

Inventory	Status
UNITED STATES (TSCA)	Y
CANADA (DSL)	Y
EUROPE (EINECS/ELINCS)	Y
AUSTRALIA (AICS)	Y
JAPAN (MITI)	Y
SOUTH KOREA (KECL)	Y

Y All ingredients are on the inventory.

E All ingredients are on the inventory or exempt from listing.

P =One or more ingredients fall under the polymer exemption or are on the no longer polymer list. All other ingredients are on the inventory or exempt from listing.

N =Not determined or one or more ingredients are not on the inventory and are not exempt from listing.

FEDERAL REGULATIONS

Inventory Issues:

All functional components of this product are listed on the TSCA Inventory.

SARA Title III Hazard Classes:

Fire Hazard	NO
Reactive Hazard	NO
Release of Pressure	NO
Acute Health Hazard	YES
Chronic Health Hazard	YES

STATE REGULATIONS:

This product does not contain any components that are regulated under California Proposition 65.

16. OTHER INFORMATION

National Fire Protection Association Hazard Ratings--NFPA(R) :

- 3 Health Hazard Rating--Serious
- 2 Flammability Rating--Moderate
- 0 Instability Rating & Minimal

National Paint & Coating Hazardous Materials Identification System—HMIS(R) :

- 3 Health Hazard Rating--Serious
- 1 Flammability Rating--Slight
- 0 Reactivity Rating & Minimal

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Key Legend Information:

ACGIH .American Conference of Governmental Industrial Hygienists
OSHA .Occupational Safety and Health Administration
TLV .Threshold Limit Value
PEL .Permissible Exposure Limit
TWA .Time Weighted Average
STEL Short Term Exposure Limit
NTP .National Toxicology Program
IARC .International Agency for Research on Cancer
ND .Not determined
RPI .Rhodia Established Exposure Limits

Disclaimer

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