

MSDS

SULFURIC ACID SOLUTIONS, 0.36 - 1.4 N (0.18 - 0.7 M), 1 - 4% (v/v) Aqueous Solutions

Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

Catalog Number: 8148, 8152, 8276, 8280, 8282, 8285, 8290, 8297, 8300, 8301, 8303, R8148300, R8300001, R8302000, S-649, S-650, S-655, S-656, S-660, S090480, S090490, S090500, S090700, S090720, SS090480, SS090490, SS090500, SS090700, SS090720, SX-1145, SX-1272, SX-929, TX-933	
Product Identity: SULFURIC ACID SOLUTIONS, 0.36 - 1.4 N (0.18 - 0.7 M), 1 - 4% (v/v) Aqueous Solutions	
Manufacturer's Name: RICCA CHEMICAL COMPANY LLC	Emergency Contact(24 hr) -- CHEMTREC® Domestic: 800-424-9300 International: 703-527-3887
CAGE Code: 0V553	
Address: 448 West Fork Dr Arlington, TX 76012	Telephone Number For Information: 817-461-5601
Date Prepared: 3/19/99	Revision: 16 Last Revised: 03/29/2007 Date Printed: 06/15/2007 4:39:05 pm

Section 2. Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Sulfuric Acid	7664-93-9	1 - 4	Not Available 1 mg/m3	Not Available 1 mg/m3
Water, Deionized	7732-18-5	Balance	Not Available Not Available	Not Available Not Available

Section 3: Hazard Identification

Emergency Overview: Does not present any significant health hazards at these low concentrations. May irritate eyes and skin. Wash areas of contact with water.

Target Organs: eyes, skin, respiratory system, teeth.

Eye Contact: May cause slight irritation.

Inhalation: May cause irritation.

Skin Contact: May cause slight irritation.

Ingestion: May cause throat irritation, vomiting and diarrhea.

Chronic Effects/Carcinogenicity: None

IARC - No.

NTP - No.

OSHA - No.

Reproductive Information: Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Sulfuric Acid.

Teratology (Birth Defect) Information: Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Sulfuric Acid.

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Section 4: First Aid Measures - In all cases, seek qualified evaluation.

Eye Contact: Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

Skin Contact: Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.

Ingestion: Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

Section 5: Fire Fighting Measures

Flash Point: Not Available.

Method Used: Not Available.

LFL: Not Available.

UFL: Not Available.

Extinguishing Media: Dry chemical, foam, or carbon dioxide. Water is acceptable to use on these solutions due to the weak concentrations of acid involved.

Fire & Explosion Hazards: Contact with most metals causes formation of flammable and explosive hydrogen gas. However, the risk is reduced due to the weaker concentration of Sulfuric Acid present.

Fire Fighting Instructions: Use normal procedures/instructions.

Fire Fighting Equipment: Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse. Wash site with soda ash solution. Always dispose of in accordance with local regulations.

Section 7. Handling and Storage

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Do not mix with bases. Contact with water will generate heat.

Safety Storage Code: General

Section 8: Exposure Control/Personal Protection

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

Section 9: Physical and Chemical Properties

Appearance: Clear, colorless liquid

Odor: Odorless

Solubility in Water: Infinite

Specific Gravity: Approximately 1

pH: < 2

Boiling Point(°C): Approximately 100

Melting Point(°C): below 0

Vapor Pressure: Not Applicable.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions of use and storage.

Incompatibility: Organics, chlorates, carbides, fulminates, picrates, alkalines, reducing agents, nitrates, Acetic Acid, oxidizing agents, metals.

Hazardous Decomposition Products: When heated to decomposition, Sulfuric Acid can emit highly toxic/poisonous gases and fumes, including toxic oxides of Sulfur.

Hazardous Polymerization: Will not occur.

Section 11. Toxicological Information

LD50, Oral, Rat: 2140 mg/kg (Sulfuric Acid), details of toxic effects not reported other than lethal dose value.

LC50, Inhalation, Rat: (Sulfuric Acid) 510 mg/m³/2H, No toxic effect noted.

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Section 12. Ecological Information

Ecotoxicological Information: Concentrated Sulfuric Acid has moderate acute and chronic toxicity to aquatic life. Insufficient data are available on the long-term effects of Sulfuric Acid to aquatic life, plants, birds, or land animals.

Chemical Fate Information: Small quantities of acids will be neutralized by the alkalinity in aquatic ecosystems.

Section 13. Disposal Considerations

Neutralize with soda ash or Calcium Carbonate. Wash the resulting solution down the drain with excess water. Treat the solid residue as normal refuse. Always dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

Part Numbers:

This product is not regulated.

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

OSHA Status: These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

TSCA Status: All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.

Sara Title III:

Section 302 Extremely Hazardous Substances: Not Applicable.

Section 311/312 Hazardous Categories: Acute, Chronic, Reactivity: Yes Fire, Pressure: No

Section 313 Toxic Chemicals: Not Applicable.

California: None Reported.

Pennsylvania: Sulfuric Acid is listed as an Environmental Hazard on the state's Hazardous Substances List.

RCRA Status: Not Applicable.

CERCLA Reportable Quantity: Sulfuric Acid - 1,000 pounds.

WHMIS: Not Applicable.

Section 16. Other Information

NFPA Ratings:

Health: 1 Flammability: 0 Reactivity: 0 Special Notice Key: None

HMIS Ratings:

Health: 1 Flammability: 0 Reactivity: 0 Protective Equipment: B (Protective Eyewear, Gloves)

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- Rev 1, 6-24-99: (Section 1) corrected range in title from 0.25 to 0.36.
Rev 2, 8-3-2000: Reformatted from WordPerfect® to Microsoft Word®; (Section 1) added Catalog Numbers 8148, 8152, 8285; revised title to include Molarity and % (v/v) concentrations; (Section 1) Revised emergency telephone number to CHEMTREC® 800-424-9300; (Section 3) added mutation and reproductive effect citations; (Section 7) added storage code; (Section 15) added Florida and Pennsylvania data.
Rev 3, 10-09-2001: Reformatted to electronic data format.
Rev 4, 03-18-2003: (Section 1) added Solutions Plus catalog number S090720.
Rev 5, 09-07-2003: (Section 1) added Solutions Plus catalog number S090480.
Rev 6, 09-19-2003: (Section 1) added Solutions Plus catalog number S090490.
Rev 7, 09-26-2003: (Section 1) added Solutions Plus catalog number S090700.
Rev 8, 01-15-2004: (Section 1) added catalog number R8302000.
Rev 9, 12-16-2004: (Section 1) added catalog number R8300001.
Rev 10, 10-28-2005: (Section 1) added Red Bird catalog numbers SX-1272 and TX-933.
Rev 11, 11-17-2005: (Section 1) added Red Bird catalog numbers S-656; (Section 15) added WHMIS information.
Rev 12, 04-11-2006: (Section 1) added Red Bird catalog number S-649.
Rev 13, 06-09-2006: (Section 15) revised WHMIS information.
Rev 14, 06-22-2006: (Section 1) added catalog number R8148300.
Rev 15, 10-02-2006: (Section 3) revised overview; (Section 9) revised pH range from < 3.
Rev 16, 12-14-2006: (Section 1) added Red Bird catalog number SX-1145.
Rev 17, 03-29-2007: (Section 1) added Red Bird catalog number SX-929.

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.