

# FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

## Material Safety Data Sheet (MSDS)

MSDS #: 801.04

Revision Date: April 2, 2001

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### Section 1 — Chemical Product and Company Identification

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#### Sulfuric Acid Solution

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

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### Section 2 — Composition, Information on Ingredients

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Sulfuric Acid (7664-93-9) 0.3-2.8%, Water (7732-18-5) 97-99.7%  
0.5M and less concentrated

CAS#: None Established

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### Section 3 — Hazards Identification

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Clear, colorless liquid. Slight sulfurous odor.  
Slightly toxic by ingestion. Severely irritating to body tissues, especially eyes.  
Avoid all body tissue contact.

#### FLINN AT-A-GLANCE

Health-1  
Flammability-0  
Reactivity-1  
Exposure-1  
Storage-3

0 is low hazard, 3 is high hazard

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### Section 4 — First Aid Measures

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Call a physician, seek medical attention for further treatment, observation and support after first aid.  
Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.  
Eye: Immediately flush with fresh water for 15 minutes.  
External: Wash continuously with fresh water for 15 minutes.  
Internal: Give 1 to 2 cups of water or milk, followed by a gastric antacid, such as milk of magnesia. Do not induce vomiting. Call a physician or poison control at once.

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### Section 5 — Fire Fighting Measures

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Non flammable liquid.  
When heated to decomposition, emits toxic fumes of SO<sub>x</sub>.  
**Fire Fighting Instructions:** Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

None Established

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### Section 6 — Accidental Release Measures

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Restrict unprotected personnel from area. Remove all ignition sources and ventilate area. Contain spill with sand and absorbent material, neutralize with sodium bicarbonate or calcium hydroxide and deposit in sealed bag or container. See Sections 8 and 13 for further information.

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### Section 7 — Handling and Storage

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Flinn Suggested Chemical Storage Pattern: Inorganic #9. Store with acids, not nitric acid.  
Store in a dedicated acid cabinet and away from any source of water; if an acid cabinet is not available, store in Flinn Saf-Cube.  
Use and dispense in a hood.

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### Section 8 — Exposure Controls, Personal Protection

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Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).  
Exposure guidelines: TWA 1 mg/m<sup>3</sup>, STEL 3 mg/m<sup>3</sup> (OSHA, ACGIH)

### Section 9 — Physical and Chemical Properties

Clear, colorless liquid. Slight sulfurous odor.  
Concentration: 0.05 to 0.5 Molar  
Miscible with water evolving much heat.  
Formula: H<sub>2</sub>SO<sub>4</sub>  
Formula Weight: 98.08

### Section 10 — Stability and Reactivity

Avoid contact with strong bases, reacts violently with water.  
Shelf Life: Good, if stored safely.

### Section 11 — Toxicological Information

Acute effects: Severely corrosive	ORL-RAT LD50: 2140 mg/kg as sulfuric acid
Chronic effects: N.A.	IHL-RAT LC50: 510 mg/m <sup>3</sup> /2H
Target organs: Eyes, skin	SKN-RBT LD50: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

### Section 12 — Ecological Information

Data not yet available.

### Section 13 — Disposal Considerations

Please consult with state and local regulations.  
Flinn Suggested Disposal Method #24b is one option.

### Section 14 — Transport Information

Shipping Name: Sulfuric Acid  
Hazard Class: 8, Corrosive  
UN Number: UN2796

N/A = Not applicable

### Section 15 — Regulatory Information

TSCA-listed, EINECS-listed (231-639-5). RCRA code D002, D003.

### Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

**FLINN SCIENTIFIC INC.**

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*Flinn MSDS Prevent Chemical Accidents*

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