

## Sulfuric Acid Solution Less than 1 M Safety Data Sheet (SDS)

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Sulfuric Acid Solution Less than 1 M

Signal Word  
**WARNING**

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

Chemtrec Emergency Phone Number: (800) 424-10414

Pictograms

### SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Skin and eye irritation (Category 2, 2A). Causes skin and serious eye irritation (H315+H319).



Industrial exposure to sulfuric acid vapors and mists is listed as a known human carcinogen by IARC (IARC-1).

### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Sulfuric acid	7664-93-9	H <sub>2</sub> SO <sub>4</sub>	98.08	0.3-5.3%
Water	7732-18-5	H <sub>2</sub> O	18.00	94.7-99.7%

### SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell.

**If inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so.

Continue rinsing (P305+P351+P338). **If eye irritation persists eyes:** Get medical advice or attention (P337+P313).

**If on skin:** Wash with plenty of water (P302+P352). **If skin irritation occurs:** Get medical advice or attention (P332+P313).

**If swallowed:** Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

### SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solution.

In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA Code

None established

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**SECTION 6 — ACCIDENTAL RELEASE MEASURES**

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Ventilate area. Spilled sulfuric acid is very slippery. Contain spill with sand or other inert 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, except 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™.

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**SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION**

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Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264).

Exposure guidelines: (as sulfuric acid) PEL 1 mg/m<sup>3</sup> (OSHA); TLV 0.2 mg/m<sup>3</sup> (thoracic fraction) (ACGIH); IDLH 15 mg/m<sup>3</sup>

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Clear, colorless liquid. Slight sulfurous odor.

pH: <1>

pH 0.01M ~ 2

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**SECTION 10 — STABILITY AND REACTIVITY**

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Avoid contact with strong bases, organic materials, finely powdered metals, peroxides, carbonates, chlorates, nitrates, and reducing agents.

Shelf life: Good, if stored properly.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Skin and eye irritant.

ORL-RAT LD<sub>50</sub>: 2140 mg/kg as sulfuric acid

Chronic effects: Dental erosion.

IHL-RAT LC<sub>50</sub>: 510 mg/m<sup>3</sup>/2 hour as sulfuric acid

Target organs: Eyes, skin, respiratory system.

SKN-RBT LD<sub>50</sub>: N.A.

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Fish: Bluegill/Sunfish: 49 mg/L; 48Hr; TLm (tap water @ 20oC)

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please review all federal, state and local regulations that may apply before proceeding.

Flinn Suggested Disposal Method #24b is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping name: Sulfuric Acid Solution. Hazard class: 8, Corrosive. UN number: UN2796.

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**SECTION 15 — REGULATORY INFORMATION**

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

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**SECTION 16 — OTHER INFORMATION**

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USE OR DISPOSAL OF THIS PRODUCT(S).

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

N/A = Not applicable

**Consult your copy of the Flinn Science Catalog/Reference Manual for additional information about laboratory chemicals.**

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