

3/3/2025: File reviewed, more current MSDS/SDS not available. CAS

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 ₂ SO ₄	98.08	0.3-5.3%
Water	7732-18-5	H ₂ 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.

NFPA Code

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

None established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

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.

SECTION 7 — HANDLING AND STORAGE

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™.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

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

Exposure guidelines: (as sulfuric acid) PEL 1 mg/m³ (OSHA); TLV 0.2 mg/m³ (thoracic fraction) (ACGIH); IDLH 15 mg/m³

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Clear, colorless liquid. Slight sulfurous odor. pH: <1>
pH 0.01M ~ 2

SECTION 10 — STABILITY AND REACTIVITY

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

Shelf life: Good, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Skin and eye irritant.	ORL-RAT LD ₅₀ : 2140 mg/kg as sulfuric acid
Chronic effects: Dental erosion.	IHL-RAT LC ₅₀ : 510 mg/m ³ /2 hour as sulfuric acid
Target organs: Eyes, skin, respiratory system.	SKN-RBT LD ₅₀ : N.A.

SECTION 12 — ECOLOGICAL INFORMATION

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

SECTION 13 — DISPOSAL CONSIDERATIONS

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

Flinn Suggested Disposal Method #24b is one option.

SECTION 14 — TRANSPORT INFORMATION

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

SECTION 15 — REGULATORY INFORMATION

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

SECTION 16 — OTHER INFORMATION

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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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