SDS #: 801
Revision Date: December 3, 2018

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Sulfuric Acid 6 M - 18 M (Concentrated) Safety Data Sheet (SDS)

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Sulfuric Acid 6 M - 18 M (Concentrated)

Signal Word
DANGER

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
Chemtrec Emergency Phone Number: (800) 424-10412

Pictograms



SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Skin corrosion or irritation (Category 1). Causes severe skin burns and eye damage (H314). Do not breathe mist, vapors or spray (P260).

Hazard class: Acute toxicity, inhalation (Category 5). May be harmful if inhaled (H333).

Hazard class: Hazardous to the aquatic environment, acute toxicity (Category 3). Harmful to aquatic life (H402).

Considerable heat generated when diluted with water.

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 (/link/d027464209544a658f72288d71b16d04.aspx) Water	7664-93-9 7732-18-5	H_2SO_4 H_2O	98.08 18.00	32-96% 4-68%

Buy Now
(/link/d027464209544a658f72288d71b16d04.aspx)

SECTION 4 — FIRST AID MEASURES

Immediately call a POISON CENTER or physician (P310).
If inhaled: Call a POISON CENTER or physician if you feel unwell (P304+P312). **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 on skin or hair: Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353). Wash contaminated clothing before reuse (P363). **If swallowed:** Rinse mouth. Do NOT induce vomiting (P301+P330+P331).

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solution.
In case of fire: Use a tri-class dry chemical fire extinguisher.
Oxides of sulfur may be produced in fire.
When heated to decomposition it emits toxic fumes of sulfur oxides.

NFPA Code
H-3
F-0
R-2
No water

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™.
Use only in a hood or well-ventilated area (P271).

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264). Use only in a hood or well-ventilated area (P271).
Exposure guidelines: PEL 1 mg/m^3 (OSHA); TLV 0.2 mg/m^3 (thoracic fraction) (ACGIH); IDLH 15 mg/m^3

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Colorless, dense, oily liquid. Sulfurous odor.
Soluble: Miscible with water, evolving a lot of heat.
Decomposition temp: 340 °C

Boiling point: 290 °C
Melting point: 10.4 °C
pH: <1>
Specific gravity: 1.84
Vapor density: 3.38

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong bases, organic materials, finely powdered metals, peroxides, carbonates, chlorates, nitrates, and reducing agents. Reacts violently with water. Always add acid to water, never the reverse.
Shelf life: Good, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Corrosive to all body tissues, severe respiratory tract irritant.
Chronic effects: Lung, nose and throat damage, cancer, tooth erosion.
Target organs: Eyes, skin, respiratory system, and teeth.

ORL-RAT LD_{50}: 2140 mg/kg
IHL-RAT LC_{50}: 510 mg/m^3/2 hour
SKN-RBT LD_{50}: N.A.

SECTION 12 — ECOLOGICAL INFORMATION

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

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. Hazard class: 8, Corrosive. UN number: UN1830

SECTION 15 — REGULATORY INFORMATION

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

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) 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. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, 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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