



SAFETY DATA SHEET (SDS)

Sulfuric Acid (H₂SO₄)

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Date of Issue: 25 April 2026

Supplier: ATDM

Product Name: Sulfuric Acid

Chemical Formula: H₂SO₄

CAS Number: 7664-93-9

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

Product Identifier: Sulfuric Acid (Concentrated or Diluted depending on grade)

Recommended Uses:

- Industrial chemical manufacturing
- Fertilizer production
- Battery electrolyte (lead-acid batteries)
- Laboratory reagent (controlled use)

Supplier Details:

ATDM

(Authorized Technical & Distribution Materials Supplier)

Emergency Contact:

ATDM Emergency Response Line (24/7): +XX XXX XXX XXX (*placeholder for official number*)



2. HAZARDS IDENTIFICATION

GHS Classification:

- Skin Corrosion – Category 1A
- Serious Eye Damage – Category 1
- Corrosive to Metals – Category 1
- Acute Toxicity (inhalation mist) – Category 3

Hazard Statements:

- H314: Causes severe skin burns and eye damage
- H290: May be corrosive to metals
- H331: Toxic if inhaled (acid mist)

Signal Word:

DANGER

Pictograms:

- Corrosion (GHS05)
- Skull and Crossbones (GHS06)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	Concentration
Sulfuric Acid	7664-93-9	98% (concentrated typical industrial grade)



4. FIRST AID MEASURES

Inhalation:

- Move person to fresh air immediately
- Seek urgent medical attention
- If breathing is difficult, administer oxygen by trained personnel

Skin Contact:

- Remove contaminated clothing immediately
- Rinse skin with water for at least 15–30 minutes
- Do NOT apply neutralizing chemicals directly on skin

Eye Contact:

- Rinse cautiously with water for at least 30 minutes
- Remove contact lenses if present and easy to do
- Immediate medical attention required

Ingestion:

- Do NOT induce vomiting
- Rinse mouth with water
- Seek emergency medical help immediately

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

- Dry chemical powder
- Carbon dioxide (CO₂)
- Water spray (used cautiously for cooling only)

Special Hazards:

- Reacts violently with water and organic materials
- Releases toxic sulfur oxides (SO_x) when heated



Protective Equipment:

- Self-contained breathing apparatus (SCBA)
- Acid-resistant protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

- Evacuate area
- Wear acid-resistant PPE

Environmental Precautions:

- Prevent entry into drains or waterways

Cleanup Methods:

- Neutralize with sodium bicarbonate or lime
- Absorb with inert material (dry sand, vermiculite)
- Collect in acid-resistant containers for disposal

7. HANDLING AND STORAGE

Handling:

- Use only in well-ventilated areas
- Avoid contact with water unless controlled dilution is required
- Always add acid to water, NEVER water to acid

Storage:

- Store in corrosion-resistant containers (glass-lined or HDPE)
- Keep away from metals, organic materials, and bases
- Maintain tightly sealed containers



8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

- OSHA PEL: 1 mg/m³ (TWA)
- ACGIH TLV: 0.2 mg/m³ (mist)

Personal Protective Equipment (PPE):

- Acid-resistant gloves (neoprene or nitrile)
- Face shield and chemical goggles
- Acid-resistant apron or suit
- Respiratory protection for mist exposure

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Colorless to slightly yellow liquid
- Odor: Odorless (may emit sharp odor when heated)
- pH: < 1 (strong acid)
- Boiling Point: ~337°C
- Melting Point: ~10°C
- Density: ~1.84 g/cm³ (98% acid)
- Solubility: Miscible with water (highly exothermic reaction)

10. STABILITY AND REACTIVITY

Reactivity:

- Highly reactive with water, bases, metals, organic materials

Hazardous Reactions:

- Violent exothermic reaction with water
- Produces hydrogen gas with metals (flammable)

Conditions to Avoid:

- Heat, moisture, incompatible substances



11. TOXICOLOGICAL INFORMATION

Acute Effects:

- Severe burns to skin and eyes
- Respiratory tract damage from vapors/mist

Chronic Exposure:

- Dental erosion
- Chronic bronchitis
- Lung damage from repeated exposure

12. ECOLOGICAL INFORMATION

- Extremely harmful to aquatic life
- Causes severe pH alteration in ecosystems
- Persistence: High (non-biodegradable)

13. DISPOSAL CONSIDERATIONS

- Must be neutralized before disposal (approved chemical treatment)
- Dispose according to local hazardous waste regulations
- Managed through licensed waste disposal contractors



14. TRANSPORT INFORMATION

UN Number:

UN 1830 (Concentrated sulfuric acid)

Transport Class:

- Class 8: Corrosive substances

Packing Group:

- II (medium hazard)

15. REGULATORY INFORMATION

Complies with:

- GHS (Globally Harmonized System)
- REACH regulations (EU)
- OSHA Hazard Communication Standard

16. OTHER INFORMATION

This Safety Data Sheet is provided for informational and safety guidance purposes only. Handling of sulfuric acid must only be performed by trained personnel under controlled industrial or laboratory conditions.

Supplier Note:

ATDM supplies sulfuric acid in various grades (industrial, laboratory, and battery-grade) with compliance to international safety and quality standards.