



MATERIAL SAFETY DATA SHEET

Industrial Sulfuric Acid

Product name: Sulfuric Acid

Chemical formula: H₂SO₄

CAS number: 7664-93-9

EC number: 231-639-5

Molecular weight: 98.08 g/mol

Concentration: 70–98%

Supplier: Basekim Company

1. Hazard Identification

Signal word: Danger

Transport class: Class 8 – Corrosive

UN number: UN 1830

Main hazards:

- Causes severe skin burns and eye damage.
- May be corrosive to metals.
- Acid mist may seriously irritate the respiratory system.
- Contact with water generates considerable heat.
- Reacts with some metals and may release flammable hydrogen gas.

2. Composition

Component	CAS Number	Content
Sulfuric Acid	7664-93-9	70–98%
Water	7732-18-5	Balance

3. First-Aid Measures

Inhalation: Move the person to fresh air immediately. Obtain urgent medical attention.

Eye contact: Rinse continuously with clean water for at least 15 minutes. Obtain immediate medical treatment.

Skin contact: Remove contaminated clothing and rinse the skin immediately with plenty of water. Obtain urgent medical attention.



Ingestion: Rinse the mouth. Do not induce vomiting. Do not give neutralising chemicals. Obtain immediate medical assistance.

4. Firefighting Measures

Sulfuric acid is not combustible, but it may react with metals and produce hydrogen gas.

Use extinguishing media suitable for the surrounding fire.

Firefighters should wear chemical-resistant clothing and self-contained breathing apparatus.

Do not direct water into leaking acid containers.

5. Accidental Release

- Evacuate unnecessary personnel.
- Wear full chemical protective equipment.
- Provide adequate ventilation.
- Stop the leak only when it is safe.
- Contain the spill with acid-resistant inert material.
- Prevent entry into drains, soil and waterways.
- Use trained emergency personnel for neutralisation and cleanup.

6. Handling and Storage

- Avoid all contact with skin, eyes and clothing.
- Do not breathe acid mist.
- Use corrosion-resistant equipment.
- Store in a cool, ventilated and bunded area.
- Keep containers tightly closed.
- Keep away from alkalis, metals, organic materials and reducing agents.
- When dilution is necessary, add acid slowly to water—never water to concentrated acid.

7. Personal Protection

Eyes and face: Chemical goggles and face shield.

Hands: Acid-resistant gloves.



Body: Acid-resistant clothing, apron and boots.

Respiratory protection: Use approved respiratory protection where acid mist may be present.

Emergency eyewash and safety shower must be available.

8. Physical and Chemical Properties

Property	Typical Information
Appearance	Clear, colourless oily liquid
Odour	Odourless or slightly pungent
Concentration	70–98%
Density	Up to approximately 1.84 g/cm ³
pH	Strongly acidic
Water solubility	Completely miscible
Boiling point	Concentration-dependent; approximately 290–337°C
Flammability	Non-flammable

9. Stability and Reactivity

Stable under correct storage conditions.

Avoid contact with:

- Water during uncontrolled mixing
- Strong alkalis
- Reactive metals
- Organic materials
- Reducing agents
- Chlorates, nitrates and other incompatible chemicals

Reactions may generate intense heat, toxic fumes or hydrogen gas.

10. Toxicological Information

Sulfuric acid can cause:

- Severe skin burns
- Permanent eye injury



- Respiratory irritation
- Damage to the mouth, throat and stomach if swallowed
- Lung and dental damage after repeated mist exposure

11. Environmental Information

Large releases may strongly reduce the pH of water and soil and may harm aquatic organisms.

Prevent release into the environment.

12. Disposal

Dispose of sulfuric acid and contaminated packaging through an authorised hazardous-waste contractor.

Do not discharge into drains or waterways.

13. Transport Information

UN number: UN 1830

Shipping name: Sulfuric Acid

Hazard class: 8

Packing group: II

Marine pollutant: Generally not classified

Transport must comply with ADR, IMDG and IATA requirements.

14. Important Notice

This is a general MSDS draft for 70–98% industrial sulfuric acid. The final document must be checked against the actual product concentration, Certificate of Analysis, manufacturer SDS and destination-country regulations.