



榮潤科技有限公司
LongRun Technology CO., LTD

Safety Data Sheet (SDS)

Sulfuric Acid 50%

1. Identification

Product Name: Sulfuric Acid

Chemical Name: Sulfuric Acid

Chemical Formula: H₂SO₄

CAS Number: 7664-93-9

Recommended Use: Chemical manufacturing, metal processing, fertilizer production, battery electrolyte, laboratory reagent.

Supplier: LongRun Technology Co.,Ltd.

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2. Hazard(s) Identification

Pictogram



GHS Classification:

Skin Corrosion – Category 1A

Serious Eye Damage – Category 1

Corrosive to Metals – Category 1

Signal Word: Danger

Hazard Statements:

H290: May be corrosive to metals.

H314: Causes severe skin burns and eye damage.

Precautionary Statements:

P260: Do not breathe mist or vapors.

P264: Wash thoroughly after handling.

P280: Wear protective gloves, protective clothing, and eye/face protection.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353: IF ON SKIN: Remove contaminated clothing and Rinse skin with water/shower for at least 15 minutes..

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Immediately call a POISON CENTER or doctor.

3. Composition / Information on Ingredients

Substance: Sulfuric Acid

CAS Number: 7664-93-9

Concentration:Sulfuric Acid 50%;Water:50%

4. First-Aid Measures

Inhalation: Move the exposed person to fresh air immediately. Seek medical attention if symptoms persist.

Skin Contact: Remove contaminated clothing immediately. Rinse skin with plenty of water for at least 15 minutes.

Eye Contact: Rinse cautiously with water for at least 15 minutes while holding eyelids open. Seek immediate medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek medical attention immediately.

5. Fire-Fighting Measures

Suitable Extinguishing Media: Water spray, dry chemical, carbon dioxide, foam.

Specific Hazards: Substance is not combustible but may react with metals to release hydrogen gas.

Hazardous Combustion Products: Sulfur oxides.

Protective Equipment: Firefighters should wear self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Personal Precautions: Wear appropriate protective equipment and avoid contact with skin and eyes.

Environmental Precautions: Prevent entry into drains, soil, and waterways.

Containment and Cleanup: Neutralize with sodium carbonate, lime, or suitable alkaline material and absorb with inert material.

7. Handling and Storage

Handling: Use only in well-ventilated areas. Avoid inhalation of vapors or mists.

Storage: Store in tightly closed corrosion-resistant containers. Keep away from incompatible materials such as bases and metals.

8. Exposure Controls / Personal Protection

Exposure Limits:

OSHA PEL: 1 mg/m³ (TWA)

According to local regulations (e.g., Thailand Department of Industrial Works)

Engineering Controls:

Use local exhaust ventilation.

Personal Protective Equipment:

Eye Protection: Chemical safety goggles or face shield

Skin Protection: Acid-resistant gloves and protective clothing

Respiratory Protection: Use respirator if ventilation is inadequate

9. Physical and Chemical Properties

Appearance: Colorless to slightly yellow liquid

Odor: Odorless

pH: <1 (for diluted solution)

Decomposition Temperature: 337°C

Boiling Point: Approx. 120–150°C (depending on concentration)

Density: 1.39g/cm³ (20 °C)

Solubility: Completely miscible with water (highly exothermic)

10. Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Avoid adding water directly to concentrated acid (risk of exothermic reaction), Always add acid to water, never water to acid.

Incompatible Materials: Bases, metals, organic materials, oxidizers.

Hazardous Decomposition Products: Sulfur oxides.

11. Toxicological Information

Likely Routes of Exposure: Skin contact, eye contact, inhalation.

Effects:

Severe skin burns

Serious eye damage

Respiratory tract irritation

Chronic exposure to mist may cause dental erosion and lung irritation.

12. Ecological Information

Ecotoxicity: Harmful to aquatic life due to acidity.

Persistence and Degradability: Not biodegradable; dissociates in water.

Mobility: Highly mobile in aqueous environments.

13. Disposal Considerations

Waste Disposal: Dispose according to local, regional, and national regulations.

Neutralization before disposal is recommended when permitted.

14. Transport Information

UN Number: UN 2796

Proper Shipping Name: SULPHURIC ACID with not more than 51% acid

Hazard Class: 8 (Corrosive)

Packing Group: II

15. Regulatory Information

This product is classified according to the Globally Harmonized System (GHS).

Users must comply with local chemical safety regulations.

16. Other Information

This SDS is prepared for industrial use and should be adapted to local regulatory requirements

Users should adapt the document to their specific product concentration and regulatory requirements.