RICCA CHEMICAL COMPANY®

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Sulfuric Acid, 0.0179 Normal

Product Number: 8198

Other Identifying Product Numbers: 8198-5

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company: Ricca Chemical Company
Address: 448 West Fork Drive

Arlington, TX 76012 USA

Telephone: 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA)	800-424-9300
CHEMTREC (International)	1+ 703-527-3887

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

This product is not categorized as hazardous in any GHS hazard class.

2.2. GHS Label Elements

Pictograms: None Required.

Signal Word: None Required.

Hazard Statements: None Required.

Precautionary Statements: None Required.

2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Water	H_2O	18.01 g/mol	7732-18-5	99.91
Sulfuric Acid	H_2SO_4	98.07 g/mol	7664-93-9	< 0.1

SECTION 4: First-Aid Measures

4.1. General First Aid Information

Eye Contact: May cause slight irritation.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: May cause irritation, redness, and pain.

Ingestion: Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Does not present any significant health hazards. May irritate eyes and skin. Wash areas of contact with water. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause irritation, redness, and pain.

4.3. Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Di with water or milk. Do not induce vomiting. Call a physician if necessary.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Dry chemical, foam, or carbon dioxide. Water is acceptable to use on these solutions due to the weak concentrations of acid involved.

5.2. Specific Hazards Arising from the Substance or Mixture

Contact with most metals causes formation of flammable and explosive hydrogen gas. However, the risk is reduced due to the weaker concentration of Sulfuric Acid present.

5.3. Special Protective Equipment for Firefighters

Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate PPE for the size and nature of the spill. As a general rule, wear safety glasses and gloves.

6.2. Cleanup and Containment Methods and Materials

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse. Wash site with soda ash solution. Always dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Do not mix with bases.

Safety Data Sheet

SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Sulfuric Acid (7664-93-9)	TLV-TWA	USA	"0.2 mg/m³ TWA (thoracic particulate matter)" As Sulfuric acid [7664-93-9]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Sulfuric Acid (7664-93-9)	TWA	USA	"1 mg/m³ TWA" As Sulfuric acid [7664-93-9]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Sulfuric Acid (7664-93-9)	TLV-TWA	USA	"0.2 mg/m³ TWA (thoracic particulate matter)" As Sulfuric acid [7664-93-9]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Sulfuric Acid (7664-93-9)	TWA	USA	"1 mg/m³ TWA" As Sulfuric acid [7664-93-9]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
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Sulfuric Acid (7664-93-9)	TWA	USA	"1 mg/m³ TWA" As Sulfuric acid [7664-93-9]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Sulfuric Acid (7664-93-9)	TLV-TWA	USA	0.2 mg/m³ TWA (thoracic particulate matter)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Sulfuric Acid (7664-93-9)	TWA	USA	1 mg/m³ TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Sulfuric Acid (7664-93-9)	TLV-TWA	USA	"0.2 mg/m³ TWA (thoracic particulate matter)" As Sulfuric acid [7664-93-9]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Sulfuric Acid (7664-93-9)	TWA	USA	"1 mg/m³ TWA" As Sulfuric acid [7664-93-9]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Sulfuric Acid (7664-93-9)	TWA	USA	"1 mg/m³ TWA" As Sulfuric acid [7664-93-9]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Sulfuric Acid (7664-93-9)	TLV-TWA	USA	"0.2 mg/m³ TWA (thoracic particulate matter)" As Sulfuric acid [7664-93-9]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Sulfuric Acid (7664-93-9)	TWA	USA	"1 mg/m³ TWA" As Sulfuric acid [7664-93-9]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Sulfuric Acid (7664-93-9)	TLV-TWA	USA	"0.2 mg/m³ TWA (thoracic particulate matter)" As Sulfuric acid [7664-93-9]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Sulfuric Acid (7664-93-9)	TWA	USA	"1 mg/m³ TWA" As Sulfuric acid [7664-93-9]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Sulfuric Acid (7664-93-9)	TLV-TWA	USA	"0.2 mg/m³ TWA (thoracic particulate matter)" As Sulfuric acid [7664-93-9]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

8.2. Exposure Controls

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

8.3. Personal Protective Equipment

Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

Safety Data Sheet

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Colorless liquid
Physical State: Liquid
Odor: Odorless
Odor Threshold: Data not available.
pH: < 2
Melting/Freezing Point: 0.0°C
Initial Boiling Point/Range: 100°C - 100°C
Flash Point: Data not available.
Evaporation Rate: Data not available.
Flammability: Data not available.
Flammability/Explosive Limits: Data not available.
Vapor Pressure: Data not available.
Vapor Density: Data not available.
Relative Density: 1.00
Solubility: Miscible
Partition Coefficient: Data not available.
Auto-Ignition Temperature: Data not available.
Decomposition Temperature: Data not available.
Viscosity: Data not available.
Explosive Properties: Data not available.
Oxidizing Properties: Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Organics, chlorates, carbides, fulminates, picrates, alkalines, reducing agents, nitrates, Acetic Acid, oxidizing agents, metals.

10.4. Hazardous Decomposition Products

Will not occur.

Safety Data Sheet

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LD50, Oral, Rat: 2140 mg/kg (Sulfuric Acid), details of toxic effects not reported other than lethal dose value. LC50, Inhalation, Rat: (Sulfuric Acid) 510 mg/m3/2H, No toxic effect noted.

Skin Corrosion and Irritation:

Not applicable.

Serious Eye Damage and Irritation:

Not applicable.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

Not applicable.

Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

Specific Target Organ Toxicity from Repeated Exposure:

Not applicable.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

Safety Data Sheet

SECTION 12: Ecological Information

12.1. Ecotoxicity

Not applicable.

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

SECTION 14: Transportation Information

14.1. Transportation by Land-Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.

14.2. Transportation by Air - International Air Transport Association (IATA)

Not regulated according to IATA Dangerous Goods Regulations.

14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG Regulations.

SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Sulfuric Acid (CAS # 7664-93-9): "1000 lb EPCRA RQ" As Sulfuric acid [7664-93-9]
Sulfuric Acid (CAS # 7664-93-9): "1000 lb TPQ" As Sulfuric acid [7664-93-9]
Sulfuric Acid (CAS # 7664-93-9): 1000 lb EPCRA RQ
Sulfuric Acid (CAS # 7664-93-9): 1000 lb TPQ

Safety Data Sheet

15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Sulfuric Acid (CAS # 7664-93-9):
"1000 lb final RQ
Sulfuric Acid (CAS # 7664-93-9): "1000 lb final RQ
Sulfuric Acid (CAS # 7664-93-9): 1000 lb final RQ
Sulfuric Acid (CAS # 7664-93-9): 454 kg final RQ
Sulfuric Acid (CAS # 7664-93-9): 454 kg final RQ" As Fuming sulfuric acid [8014-95-7]
Sulfuric Acid (CAS # 7664-93-9): 454 kg final RQ" As Sulfuric acid [7664-93-9]

15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Sulfuric Acid (CAS # 7664-93-9): "1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)" As Sulfuric acid [7664-93-9]
Sulfuric Acid (CAS # 7664-93-9): 1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any part size)

15.5. Massachusetts Right-to-Know Substance List

Sulfuric Acid (CAS # 7664-93-9):
"Present" As Sulfuric acid, mixture with sulfur trioxide [8014-95-7]
Sulfuric Acid (CAS # 7664-93-9): "Extraordinarily hazardous" As Sulfuric acid [7664-93-9]
Sulfuric Acid (CAS # 7664-93-9): Extraordinarily hazardous
Sulfuric Acid (CAS # 7664-93-9): Present

15.6. Pennsylvania Right-to-Know Hazardous Substances

Sulfuric Acid (CAS # 7664-93-9):
"Environmental hazard (listed under Sulfuric acid)" As Oleum [8014-95-7]
Sulfuric Acid (CAS # 7664-93-9): "Environmental hazard" As Sulfuric acid [7664-93-9]
Sulfuric Acid (CAS # 7664-93-9): Environmental hazard
Sulfuric Acid (CAS # 7664-93-9): Environmental hazard (listed under Sulfuric acid)
Water (CAS # 7732-18-5): "Present" As Ethyl alcohol and water [RR-00802-6]
Water (CAS # 7732-18-5): Present

Safety Data Sheet

15.7. New Jersey Worker and Community Right-to-Know Components

Sulfuric Acid (CAS # 7664-93-9):
"carcinogen
Sulfuric Acid (CAS # 7664-93-9):
"sn 1762" As Sulfuric acid, fuming [8014-95-7]
Sulfuric Acid (CAS # 7664-93-9): "carcinogen
Sulfuric Acid (CAS # 7664-93-9): "SN 1761 500 lb TPQ" As Sulfuric acid [7664-93-9]
Sulfuric Acid (CAS # 7664-93-9): "sn 1761" As Sulfuric acid [7664-93-9]
Sulfuric Acid (CAS # 7664-93-9): carcinogen
Sulfuric Acid (CAS # 7664-93-9): corrosive
Sulfuric Acid (CAS # 7664-93-9): reactive - second degree
Sulfuric Acid (CAS # 7664-93-9): reactive - second degree" As Sulfuric acid [7664-93-9]
Sulfuric Acid (CAS # 7664-93-9): reactive - second degree" As Sulfuric acid, fuming [8014-95-7]
Sulfuric Acid (CAS # 7664-93-9): sn 1761
Sulfuric Acid (CAS # 7664-93-9): SN 1761 500 lb TPQ
Sulfuric Acid (CAS # 7664-93-9): sn 1762

15.8. California Proposition 65

Sulfuric Acid (CAS # 7664-93-9): "carcinogen, 3/14/2003" As Strong inorganic acid mists containing sulfuric acid [RR-03978-1]
Sulfuric Acid (CAS # 7664-93-9): carcinogen, 3/14/2003

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Sulfuric Acid (CAS # 7664-93-9): "Present" As Sulfuric acid [7664-93-9] (DSL)
Sulfuric Acid (CAS # 7664-93-9): Present (DSL)
Water (CAS # 7732-18-5): "Present" As Water [7732-18-5] (DSL)
Water (CAS # 7732-18-5): Present (DSL)

15.10. United States of America Toxic Substances Control Act (TSCA) List

All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.

Sulfuric Acid (CAS # 7664-93-9): "Present (ACTIVE)" As Sulfuric acid [7664-93-9]
Sulfuric Acid (CAS # 7664-93-9): Present (ACTIVE)
Water (CAS # 7732-18-5): "Present [XU] (ACTIVE)" As Water [7732-18-5]
Water (CAS # 7732-18-5): Present [XU] (ACTIVE)

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Sulfuric Acid (CAS # 7664-93-9): "231-639-5" As Sulphuric acid [7664-93-9]
Sulfuric Acid (CAS # 7664-93-9): 231-639-5
Water (CAS # 7732-18-5): "231-791-2" As Water [7732-18-5]
Water (CAS # 7732-18-5): 231-791-2

Safety Data Sheet

SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

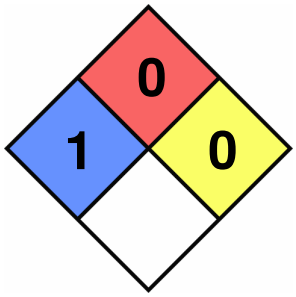
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

Health Hazards Not Otherwise Classified (HHNOC): Not Applicable.

Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

Health: 1
Flammability: 0
Reactivity: 0
Special Hazard:



16.4. Document Revision

Last Revision Date: 2025-04-02

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.