RICCA CHEMICAL COMPANY®

Safety Data Sheet

Classified According to Canada Hazardous Product Regulations SOR/2015-17 (HPR 2022)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Tightrant™ Sulfuric Acid, 0.500 Normal (N/2)
Tested in an ISO 17025 Accredited Facility

Product Number 8280

Other Identifying Product Numbers 8280-1, 8280-16, 8280-1CT, 8280-2.5, 8280-32, 8280-4, 8280-5, 8280-55

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 412 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

1.5. Distributor Address

Ricca Chemical Company
412 West Fork Drive
Arlington, TX 76012 USA

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SECTION 2: Hazard Identification

2.1. Classification of the Hazardous Product

Hazard Class	Category	Hazard Statements	Precautionary Statements
Skin Corrosion / Irritation	Category 2	H315	P264,P280,P302+P352,P321, P332+P313,P362+P364
Serious Eye Damage / Eye Irritation	Category 2	H319	P264,P280,P305+P351+P338, P337+P313

2.2. GHS Label Elements

Pictograms:

Signal Word: **Warning**

Hazard Statements:

NOTE: Hazard statements may be combined on labels to improve clarity and readability.

Hazard Number	Hazard Statement
H315	Causes skin irritation
H319	Causes serious eye irritation

Precautionary Statements:

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

Prevention

Precautionary Number	Precautionary Statement
P264	Wash hands, arms, and face thoroughly after handling.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment: Wash areas of contact with water. If possible, wipe off areas of contact with dry cloth before flushing with water.
P332+P313	If skin irritation occurs: Get medical advice or attention.
P337+P313	If eye irritation persists: Get medical advice or attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

2.3. Hazards not Otherwise Classified

No other hazards identified.

2.4. Ingredients of Unknown Acute Toxicity

2.5 percent of this mixture consists of ingredient(s) of unknown acute dermal toxicity.

SECTION 3: Composition / Information on Ingredients

3.1. Components of Mixture

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
water	Water	7732-18-5	97.53
sulfuric acid	Sulfuric Acid	7664-93-9	2.47

SECTION 4: First-Aid Measures

4.1. Description of Necessary First-Aid Measures

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause slight irritation.

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

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

Skin Contact: IF ON SKIN: Wash with plenty of water. May cause slight irritation.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Causes skin irritation Irritating to eyes and skin. After contact with skin, wash immediately with plenty of water. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation.

4.3. Immediate Medical Attention or Special Treatment Needed

Specific treatment: Wash areas of contact with water. If possible, wipe off areas of contact with dry cloth before flushing with water. 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. Dilute 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 in a Fire

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 and Precautions 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 protective gloves and eye protection.

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. Contact with water will generate heat.

SECTION 8: Exposure Controls / Personal Protection

8.1. Exposure Limits

U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)

Chemical Name	CAS Number	Exposure Limit
Sulfuric Acid	7664-93-9	1 mg/m3 TWA

U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits

No limits found.

U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)

No limits found.

U.S. OSHA - Specifically Regulated Chemicals

No limits found.

ACGIH - Threshold Limit Values - Ceilings (TLV-C)

No limits found.

ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

No limits found.

ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Chemical Name	CAS Number	Exposure Limit
Sulfuric Acid	7664-93-9	0.2 mg/m3 TWA (thoracic particulate matter)

8.2. Engineering Controls

No specific controls are needed. Normal room ventilation is adequate.

8.3. Individual Protective Measures and Personal Protective Equipment

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

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SECTION 9: Physical and Chemical Properties

9.1. Physical and Chemical Properties

Physical State:	liquid
Color:	Colorless
Odor:	Odorless
Odor Threshold:	Data not available.
Melting/Freezing Point:	Approximately 0°C
Boiling Point/Range:	Approximately 100°C
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Flash Point:	Not flammable
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
pH:	< 1
Kinematic Viscosity:	Data not available.
Solubility:	miscible
Vapor Pressure:	Not Applicable.
Evaporation Rate:	Data not available.
Relative Density:	1.02
Relative Vapor Density:	Data not available.
Particle Characteristics:	Data not available.
Partition Coefficient n-octanol/water, log	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.

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SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Sulfuric Acid	7664-93-9	Oral LD50 Rat 2140 mg/kg (Source: JAPAN_GHS)

Acute Toxicity - Dermal Exposure:

No information found.

Acute Toxicity - Inhalation Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Sulfuric Acid	7664-93-9	Inhalation LC50 Rat 0.375 mg/L 4 h (aerosol, Source: OECD_SIDS)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
Sulfuric Acid	7664-93-9	Group 1 (Carcinogenic to Humans) - Monograph 54 [1992] (occupational exposure to mists and vapours from sulfuric acid and other strong inorganic acids)

National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
Sulfuric Acid	7664-93-9	Known Human Carcinogen (listed under Strong inorganic acid mists containing sulfuric acid)

U.S. OSHA specifically regulated carcinogens

Chemical Name	CAS Number	Classification
	No data found.	

11.3 Additional Toxicology Information:

Causes skin irritation. Causes serious eye irritation.

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SECTION 12: Ecological Information

12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Sulfuric Acid	7664-93-9	Freshwater Fish	Acute	LC50 96 h Brachydanio rerio >500 mg/L [static] (IUCLID)

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

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15.01. Occupational Safety and Health Administration (OSHA) Hazards

Chemical Name	CAS Number	Regulatory Information
		No data found.

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

Chemical Name	CAS Number	RQ	TPQ
Sulfuric Acid	7664-93-9	1000 lb TPQ	1000 lb EPCRA RQ

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

Chemical Name	CAS Number	Regulatory Information
Sulfuric Acid	7664-93-9	1000 lb final RQ; 454 kg final RQ

15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

Chemical Name	CAS Number	List	Regulatory Information
Sulfuric Acid	7664-93-9	Emission Reporting	1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Sulfuric Acid	7664-93-9	Extraordinarily hazardous

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Sulfuric Acid	7664-93-9	Environmental hazard

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

Chemical Name	CAS Number	Regulatory Information
Sulfuric Acid	7664-93-9	sn 1761

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15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
Sulfuric Acid	7664-93-9	"carcinogen, 3/14/2003" As Strong inorganic acid mists containing sulfuric acid [RR-03978-1]

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

Chemical Name	CAS Number	List	Status
Sulfuric Acid	7664-93-9	DSL	Present
Water	7732-18-5	DSL	Present

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

Chemical Name	CAS Number	Status
Sulfuric Acid	7664-93-9	Present (ACTIVE)
Water	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)

Chemical Name	CAS Number	List	Number
Sulfuric Acid	7664-93-9	EINECS	231-639-5
Water	7732-18-5	EINECS	231-791-2

15.12. China - Inventory of Existing chemical Substances (IECSC)

Chemical Name	CAS Number	Status
Sulfuric Acid	7664-93-9	Present [23017]
Water	7732-18-5	Present [32224]

15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

Chemical Name	CAS Number	List	Status
Sulfuric Acid	7664-93-9	Annex 1	Present [KE-32570]
Water	7732-18-5	Annex 1	Present [KE-35400]

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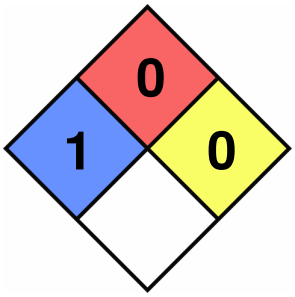
15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Sulfuric Acid	7664-93-9	(1)-430
Water	7732-18-5	- (listed on Japanese Pharmacopoeia 8th Edition)

SECTION 16: Other Information

16.1 National Fire Protection Associate (NFPA) Rating

Health: 1
Flammability: 0
Reactivity 0
Special Hazard:



16.2 Document Revision

Last Revision Date:
2026-05-05

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.