



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Mercury Stock Solution, 1000 ppm Hg, for USP <261>

Product Number R4799000

Other Identifying Product Numbers R4799000-500A

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

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

Hazard Class	Category	Hazard Statements	Precautionary Statements
Acute Toxicity - Oral	Category 4	H302	P264,P270,P301+P312,P330,P501
Skin Corrosion / Irritation	Category 2	H315	P264,P280,P302+P352,P321, P332+P313,P362+P364
Serious Eye Damage / Eye Irritation	Category 1	H318	P280,P305+P351+P338,P310
Skin Sensitization	Category 1	H317	P261,P272,P280,P302+P352, P333+P313,P321,P362+P364,P501
Germ Cell Mutagenicity	Category 1B	H340	P201,P202,P280,P308+P313,P405, P501
Reproductive Toxicity	Category 2	H361	P201,P202,P280,P308+P313,P405, P501

2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

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

Hazard Number	Hazard Statement
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H340	May cause genetic defects
H361	Suspected of damaging fertility or the unborn child

Precautionary Statements:

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

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

Prevention

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing fumes or mist.
P264	Wash hands, arms, and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
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.
P308+P313	If exposed or concerned: Get medical advice or attention.
P310	Immediately call a poison center or doctor.
P321	Specific treatment: Wash areas of contact with water. If possible, wipe off areas of contact with dry cloth before flushing with water.
P330	Rinse mouth.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage

Precautionary Number	Precautionary Statement
P405	Store locked up.

Disposal

Precautionary Number	Precautionary Statement
P501	Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations.

2.3. Hazards not Otherwise Classified

No other hazards identified.

2.4. Ingredients of Unknown Acute Toxicity

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

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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	95.01
sulfuric acid	Sulfuric Acid	7664-93-9	4.86
dichloromercury	Mercuric Chloride; Mercury(II) chloride	7487-94-7	0.13

SECTION 4: First-Aid Measures

4.1. Description of Necessary 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 irritation, redness, pain, and tearing.

Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. 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 irritation, redness, and pain.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Suspected of damaging fertility or the unborn child This product contains a small amount of Mercuric Chloride which is toxic. 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. Prolonged or repeated exposure to this product may be hazardous. Avoid ingestion or contact with eyes, skin, or clothing. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: May cause irritation, redness, and pain. CHRONIC EFFECTS / CARCINOGENICITY: Chronic exposure can lead to central nervous system damage.

4.3. Immediate Medical Attention or Special Treatment Needed

Immediately call a poison center or doctor. 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.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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

Wear gloves to protect from absorption through skin. Do not dispose of with normal refuse. Containerize for disposal with a RCRA hazardous waste disposal facility. Always comply with local, state and federal regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. 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

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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
Mercuric Chloride	7487-94-7	"0.025 mg/m3 TWA (as Hg)" As Mercury inorganic forms [RR-00569-6]
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.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	liquid
Color:	Colorless
Odor:	Data not available.
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:	Data not available.
Evaporation Rate:	Data not available.
Relative Density:	1.03
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.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 756 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Mercuric Chloride	7487-94-7	Oral LD50 Rat 1 mg/kg (Source: NLM_CIP)
Sulfuric Acid	7664-93-9	Oral LD50 Rat 2140 mg/kg (Source: JAPAN_GHS)

Acute Toxicity - Dermal Exposure:

Not acutely toxic.

Chemical Name	CAS Number	Toxicity
Mercuric Chloride	7487-94-7	Dermal LD50 Rabbit 41 mg/kg (Source: JAPAN_GHS)

Acute Toxicity - Inhalation Exposure:

Inhalation acute toxicity estimate (ATE, dust or mist): 6.4267 mg/L, 4 h(calculated)

Chemical Name	CAS Number	Toxicity
Mercuric Chloride	7487-94-7	Inhalation LC50 Acute Toxicity Estimate 0.05 mg/L 4 h (Source: ECHA)
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
Mercuric Chloride	7487-94-7	Group 3 (Not Classified) - Monograph 58 [1993] (listed under Mercury and Mercury compounds)
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
Mercuric Chloride	7487-94-7	Male Rat - Some Evidence; Female Rat - Equivocal Evidence; Male Mice - Equivocal Evidence; Female Mice - No Evidence (TR-408)
Sulfuric Acid	7664-93-9	Known Human Carcinogen (listed under Strong inorganic acid mists containing sulfuric acid)

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

U.S. OSHA specifically regulated carcinogens

Chemical Name	CAS Number	Classification
No data found.		

11.3 Additional Toxicology Information:

Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause genetic defects. Suspected of damaging fertility or the unborn child.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Mercuric Chloride	7487-94-7	Freshwater Fish	Acute	LC50 96 h <i>Lepomis macrochirus</i> 0.096 - 0.133 mg/L [static] (EPA); LC50 96 h <i>Lepomis macrochirus</i> 0.4 mg/L [semi-static] (EPA); LC50 96 h <i>Cyprinus carpio</i> 4.425 mg/L (EPA); LC50 96 h <i>Cyprinus carpio</i> 0.02 - 0.26 mg/L [static] (EPA); LC50 96 h <i>Oncorhynchus mykiss</i> 0.014 - 0.019 mg/L [flow-through] (EPA); LC50 96 h <i>Oncorhynchus mykiss</i> 0.13 - 0.19 mg/L [static] (EPA); LC50 96 h <i>Pimephales promelas</i> 0.155 mg/L (EPA); LC50 96 h <i>Pimephales promelas</i> 0.1 - 0.182 mg/L [flow-through] (EPA); LC50 96 h <i>Poecilia reticulata</i> 0.041 mg/L (EPA); LC50 96 h <i>Poecilia reticulata</i> 5.933 - 10.34 mg/L [static] (EPA)
Sulfuric Acid	7664-93-9	Freshwater Fish	Acute	LC50 96 h <i>Brachydanio rerio</i> >500 mg/L [static] (IUCLID)
Mercuric Chloride	7487-94-7	Water Flea	Acute	EC50 48 h <i>Daphnia magna</i> >0.012 mg/L [semi-static] (EPA); EC50 48 h <i>Daphnia magna</i> 0.0015 mg/L [Static] (EPA)

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in soil

Data not available.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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.



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG regulations.

SECTION 15: Regulatory Information

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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
Mercuric Chloride	7487-94-7	500 lb lower TPQ; 10000 lb upper TPQ	500 lb EPCRA RQ
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
Mercuric Chloride	7487-94-7	Emission Reporting	"not eligible for the de minimis exemption, listed under Chemical Category N458" As Mercury compounds [RR-00138-7]
Mercuric Chloride	7487-94-7	Chemicals of Special Concern	"10 lb RT" As Mercury compounds [RR-00138-7]
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
Mercuric Chloride	7487-94-7	Extraordinarily hazardous
Sulfuric Acid	7664-93-9	Extraordinarily hazardous

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Mercuric Chloride	7487-94-7	Environmental hazard
Sulfuric Acid	7664-93-9	Environmental hazard

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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

Chemical Name	CAS Number	Regulatory Information
Mercuric Chloride	7487-94-7	sn 1170
Sulfuric Acid	7664-93-9	sn 1761

15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
Mercuric Chloride	7487-94-7	"developmental toxicity, 7/1/1990" As Mercury compounds [RR-00138-7]
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
Mercuric Chloride	7487-94-7	DSL	Present
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
Mercuric Chloride	7487-94-7	Present (ACTIVE)
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
Mercuric Chloride	7487-94-7	EINECS	231-299-8
Sulfuric Acid	7664-93-9	EINECS	231-639-5
Water	7732-18-5	EINECS	231-791-2

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

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

Chemical Name	CAS Number	Status
Mercuric Chloride	7487-94-7	Present [24061]
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
Mercuric Chloride	7487-94-7	Annex 1	Present [KE-23121]
Mercuric Chloride	7487-94-7	Annex 3	"Present (97-1-140)" As Mercury compounds [RR-00138-7]
Sulfuric Acid	7664-93-9	Annex 1	Present [KE-32570]
Water	7732-18-5	Annex 1	Present [KE-35400]

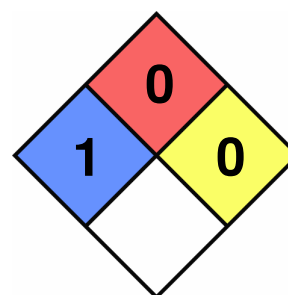
15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Mercuric Chloride	7487-94-7	(1)-226
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:
 2026-05-25

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.