

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Sulfuric Acid Solution, 5.000 N,
Product number(s):

1.2 Details of the supplier of the safety data sheet

Transene Company, Inc.
1127 57th Avenue
Oakland, CA 94621
USA

Telephone: +1 510-534-1186

1.3 Emergency telephone number

Chemtrec: +1 800-424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin Corr. 1B H314

Eye Dam. 1 H318

2.2 GHS Label elements, including precautionary statements

Pictogram(s)



Signal word **Danger**

Hazard statement(s)

H314 - Causes severe skin burns and eye damage

Precautionary statements(s)

P260 - Do not breathe mist, vapours, spray

P264 - Wash exposed skin thoroughly after handling

P280 - Wear protective gloves, protective clothing, eye protection, face protection

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

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER/doctor/...

P363 - Wash contaminated clothing before reuse

P405 - Store locked up

P501 - Dispose of contents/container to comply with local, state and federal regulations

None

3. COMPOSITION/INFORMATION ON

INGREDIENTS 3.1

Name	CAS number	%	GHS-US classification
Sulfuric acid	7664-93-9	9.3-51.0	Skin Corr. 1A, H314; Eye Dam. 1, H318
Water	7732-18-5	balance	N/A

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

If inhaled

Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

In case of skin contact

Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.

In case of eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

If swallowed

Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe skin burns and eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

No additional information available

5. FIREFIGHTING MEASURES

5.1 Suitable extinguishing media

Foam. Dry powder. Carbon dioxide. Water spray. Sand. Do not use a heavy water stream.

5.2 Special hazards arising from the substance or mixture

Hazards

Thermal decomposition generates : Corrosive vapours.

5.3 Advice for firefighters

Advice

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

Equipment

Do not enter fire area without proper protective equipment, including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment : Safety glasses. Gloves. Head/neck protection.

Emergency procedures : Evacuate unnecessary personnel. For Emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters

6.3 Methods and materials for containment and cleaning up

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4 Reference to other sections

See Heading 8. Exposure controls and personal protection.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe mist, vapours, spray. Avoid contact during pregnancy/while nursing. Wash exposed skin thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in the original container in a cool, well ventilated place away from incompatible materials. Keep container closed when not in use. Keep away from: Heat sources. Incompatible materials: Strong bases. metals. cyanides.

7.3 Specific end user(s)

No additional information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameter

Components with workplace control parameters

Component	CAS-No.	Control parameters	Value
Sulfuric Acid	7664-93-9	ACGIH TWA	1 mg/m ³
		OSHA PEL	1 mg/m ³

8.2 Exposure controls

Appropriate Engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

Personal protective equipment

Eye/face protection

Chemical goggles or face shield.

Skin and Hand protection

Wear protective gloves.

Body protection

Wear suitable protective clothing.

Respiratory protection

Wear appropriate mask.

Other information

Avoid all unnecessary exposure.

Do not eat, drink or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Color	colorless
Upper/lower flammability or explosive limits	No data available
Odor	None
Odor threshold	No data available
Vapor pressure	No data available
Vapor density	No data available
pH	<3

Relative density	1.06-1.4
Melting point	<0 C
Freezing point	No data available
Initial Boiling point and boiling range	No data available
Flash point	
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Water solubility	infinite
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Reacts violently with (some) bases: release of heat.

10.4 Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5 Incompatible materials

metals. cyanides. Strong bases.

10.6 Hazardous decomposition products

Sulfur compounds. Thermal decomposition generates : Corrosive vapours.

11. TOXICOLOGICAL INFORMATION 11.1

Information on toxicological effects

Acute toxicity

Not classified.

Sulfuric Acid, 96% w/w (7664-93-9)

LD50 oral rat 2140 mg/kg bodyweight (Rat; Experimental value,Rat; Experimental value)

Water (7732-18-5)

LD50 oral rat = 90000 mg/kg

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

Not classified

Germ cell mutagenicity

Not classified

Carcinogenicity

Not classified

Sulfuric Acid, 96% w/w (7664-93-9)

IARC group 1

Reproductive toxicity

Not classified

Specific target organ toxicity – single exposure

Not classified

Specific target organ toxicity – repeated exposure

Not classified

Aspiration hazard

Not classified

Symptoms

Based on available data, the classification criteria are not met.

Additional Information

Causes serious eye damage.

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

LC50 fishes 1 42 mg/l (96 h; *Gambusia affinis*)

EC50 *Daphnia* 1 29 mg/l (24 h; *Daphnia magna*)

LC50 fish 2 49 mg/l (48 h; *Lepomis macrochirus*)

TLM fish 1 42 mg/l (96 h; *Gambusia affinis*)

Threshold limit other aquatic organisms 1 6900 mg/l (24 h; *Pseudomonas fluorescens*)

12.2 Persistence and degradability

Sulfuric Acid, 5.000 N

Persistence and degradability Not established.

Sulfuric Acid, 96% w/w (7664-93-9)

Persistence and degradability Biodegradability: not applicable.

Biochemical oxygen demand (BOD) Not applicable

Chemical oxygen demand (COD) Not applicable

ThOD Not applicable

BOD (% of ThOD) Not applicable

12.3 Bioaccumulative potential

Sulfuric Acid, 5.000 N

Bioaccumulative potential Not established.

Sulfuric Acid, 96% w/w (7664-93-9)

Log Pow -2.20 (Estimated value)

Bioaccumulative potential Bioaccumulation: not applicable.

12.4 Mobility in soil

No additional information available

12.5 Results in PBT and vPvB assessment

no data available

12.6 Other adverse effects

Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Product**

Dispose in a safe manner in accordance with local/national regulations.

Contaminated Container

Dispose of contents/container to comply with local, state and federal regulations.

Avoid release to the environment.

14. TRANSPORT INFORMATION

In accordance with DOT

DOT NA No.	UN2796
DOT Proper Shipping Name	Sulphuric acid with 51% or less acid
Hazardous Class	8
Packing group (DOT)	II
Reportable Quantity (RQ)	1000#
Hazard Labels:	8



15. REGULATORY INFORMATION**TSCA Inventory List**

All of the ingredients (or their hydrate forms) are listed.

CERCLA Reportable Quantity:

CAS# 7664-93-9: 1000 pounds

Section 302 (TPQ)

CAS# 7664-93-9: 1000 pounds

Sara Title Codes:

CAS # 7664-93-9: acute, chronic, reactive.

OSHA:

This product is not considered to be highly hazardous by OSHA Hazard Communication Standard.

16. OTHER INFORMATION**HMIS Rating**

HEALTH: 3

FIRE: 0

REACTIVITY: 1

SPECIFIC HAZARD: N/A

Further Information

License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. No warranty, express or implied, is made and Transene Company, Inc. assumes no liability resulting from the use of this SDS. The user must determine the suitability of this information for his/her application. Transene Company, Inc. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Preparation Information

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