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512-668-9918

Buy [Sulfuric Acid 5% Solution](#) online

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and company/undertaking

#### 1.1 Product identifiers

Product name: Sulfuric Acid 5% (v/v) Solution

CAS number: 7664-93-9

Synonyms: None

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory Chemicals, General purpose solvent

#### 1.3 Details of the supplier of the safety data sheet

Company

Lab Alley, LLC

12501 Pauls Valley Road, Suite A,  
Austin, TX 78737 U.S.A

Telephone 512-668-9918

Fax 512-886-4008

#### 1.4 Emergency telephone

**Emergency Phone #** US & Canada: 1-800-535-5053 INFOTRACK  
International 1-352-323-3500 INFOTRACK

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### GHS classification in accordance with 29 CFR 1910 (OSHA HCS)

**Physical hazards** Corrosive to metals Category 1

#### Health hazards

Skin corrosion/irritation Category 1A

Serious eye damage/eye irritation Category 1

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Hazardous to the aquatic environment, acute hazard Category 3

#### Environmental hazards

Hazardous to the aquatic environment long-term hazard, Category 3

### 2.2 GHS label elements including precautionary statements.

#### Pictogram



**Signal word:** Danger

#### Hazard Statement

May be corrosive to metals.

Causes skin irritation.

Causes serious eye damage.

May cause respiratory irritation.

#### Precautionary Statements

##### Prevention

Use personal protective equipment as required

Wash face, hands and any exposed skin thoroughly after handling

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Keep only in original container

### **Response**

IF exposed or concerned: Get medical attention/advice

### **Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

### **Skin**

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

### **Eyes**

IF IN EYES: 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

### **Spills**

Absorb spillage to prevent material damage

### **Storage**

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Store in corrosive resistant polypropylene container with a resistant liner

Store in a dry place

### **Disposal**

Dispose of contents/container to an approved waste disposal plant

### **2.3 Hazards not otherwise classified (HNOC)**

WARNING. Cancer - <https://www.p65warnings.ca.gov/>.

## **SECTION 3: Composition/information on ingredients**

Chemical name	Common name	CAS number	Concentration by weight
Sulfuric Acid		7664-93-9	8.5 – 9.5%
Water		7732-18-5	81.5 – 90.5%

## **SECTION 4: First aid measures**

#### **4.1 Description of first-aid measures**

##### **Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

##### **Skin contact**

##### **Eye contact**

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

##### **Ingestion**

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

#### **4.2 Most Important Symptoms and Effects, Acute and Delayed**

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

#### **4.3. Medical Attention or Special Treatment Needed**

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

#### **4.4 General Information**

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing Media**

Suitable: Foam, Powder, Carbon dioxide (CO<sub>2</sub>).

Unsuitable: The product reacts with water and will generate heat.

#### **5.2. Specific Hazards Arising from the Substance or Mixture**

Contact with metals may evolve flammable hydrogen gas. During fire, gases hazardous to health may be formed.

#### **5.3. Special Protective Equipment for Firefighters**

Move containers from fire area if you can do so without risk. Use standard firefighting procedures and consider the hazards of other involved materials.

## **5.4 NFPA Rating**

Health 3

Flammability 0

Reactivity 0

## **5.5 Further Information**

Not available

# **SECTION 6: Accidental release measures**

## **6.1. Personal Precautions, Protective Equipment and Emergency Procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

## **6.2 Environmental Precautions**

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

## **6.3 Methods and materials for containment and Cleaning up**

Should not be released into the environment. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

## **6.4 Reference to other sections**

For disposal see section 13.

# **SECTION 7: Handling and storage**

## **7.1 Precautions for safe handling**

Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

## **7.2 Conditions for safe storage, including any incompatibilities.**

Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in tightly closed container. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS).

## SECTION 8. Exposure controls/personal protection

### 8.1 Occupations Exposure Guidelines

Component	ACGIH	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Sulfuric acid (7664-93-9)	TWA: 0.2 mg/m <sup>3</sup>	Vacated TWA: 1 mg/m <sup>3</sup> TWA: 1mg/m <sup>3</sup>	IDLH: 15mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA:0.2mg/m <sup>3</sup>

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

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

### 8.2 Exposure Controls

Engineering Controls: Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

### Personal Protective Equipment

Personal Protective Equipment

Eye/face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure. Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Use a NIOSH/MSHA or European Standard EN 149 approved respirators if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: Physical and chemical properties

Physical state: Liquid.

Form: Liquid. Clear. Oily liquid.

Color: Colorless.

Odor: Characteristically pungent.

Odor threshold: Not available.

pH: < 1

Melting point/freezing point: -31 - 50 °F (-35 - 10 °C)

Initial boiling point and boiling range: 249.8 - 518 °F (121 - 270 °C) at 760 mmHg

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits

Flammability limit – lower (%): Not available.

Flammability limit – upper (%): Not available.

Explosive limit - lower (%): Not available.

Explosive limit - upper (%): Not available.

Vapor pressure: < 1 mmHg

Vapor density: 3.4 Air = 1

Relative density: Not available.

Solubility(ies)

Solubility (water): Completely soluble in water.

Partition coefficient (n-octanol/water): Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

Other information

Bulk density: 12.3 - 15.3 lb/gal

Dynamic viscosity: 6.8 - 23 cps (68 °F (20 °C))

Explosive properties: Not explosive.

Molecular formula: H<sub>2</sub>O<sub>4</sub>S

Molecular weight: 98.07 g/mol

Oxidizing properties: Not oxidizing.

## SECTION 10: Stability and reactivity

### Reactivity

Chemical stability Material is stable under normal conditions. Possibility of hazardous  
Hazardous polymerization does not occur. reactions

**Conditions to avoid:** Contact with incompatible materials. Do not mix with other chemicals.

**Incompatible materials:** Bases. Reducing agents. Metals.

**Hazardous decomposition products:** No hazardous decomposition products are known.

## SECTION 11: Toxicological information

### 11.1 Information on Toxicological Effects

Inhalation: May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact: Causes severe skin burns.

Eye contact: Causes serious eye damage.

Ingestion: Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Information on toxicological effects

**Acute toxicity:** Not known.

**Skin corrosion/irritation:** Causes severe skin burns and eye damage.

**Serious eye damage/eye irritation:** Causes serious eye damage.

**Respiratory or skin sensitization:** Respiratory sensitization Not a respiratory sensitizer.

**Skin sensitization:** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity:** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity:** Risk of cancer cannot be excluded with prolonged exposure.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Sulfuric acid (CAS 7664-93-9) 1 Carcinogenic to humans.

### NTP Report on Carcinogens

Sulfuric acid (CAS 7664-93-9) Known To Be Human Carcinogen.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)



Not listed.

**Reproductive toxicity:** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**

May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**

Not classified.

**Aspiration hazard:** Not an aspiration hazard.

**Chronic effects:** Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

## SECTION 12. Ecological information

### 12.1. Ecotoxicity

Harmful to aquatic life with long lasting effects. Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

### 12.2. Persistence and Degradability

Data not available.

### 12.3. Bio-accumulative Potential

Data not available.

### 12.4. Mobility in Soil

This product is water soluble and may disperse in soil. Expected to be mobile in soil.

### 12.5. Other Adverse Ecological Effects

The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

## SECTION 13. Disposal considerations

### Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations:** Dispose in accordance with all applicable regulations.

**Hazardous waste code:** D002: Waste Corrosive material [pH  $\leq 2$  or  $\geq 12.5$ , or corrosive to steel]. The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products:** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging:** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## SECTION 14: Transport information

### DOT(US)

UN-No: UN 2796

Proper Shipping Name: Sulfuric Acid

Hazard Class 8

Packing Group II

Hazard label(s):



### TDG

UN-No: UN 2796

Proper Shipping Name: Sulfuric Acid

Hazard Class 8

Packing Group II

Hazard label(s):



**IATA**

UN-No: UN 2796

Proper Shipping Name: Sulfuric Acid

Hazard Class 8

Packing Group II

Hazard label(s):

**SECTION 15: Regulatory information****15.1. Occupational Safety and Health Administration (OSHA) Hazards**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Sulfuric acid (CAS 7664-93-9) Listed.

**SARA 304 Emergency release notification**

SULFURIC ACID (CAS 7664-93-9) 1000 LBS

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**Toxic Substances Control Act (TSCA)**

This substance is on the TSCA 8(b) inventory and is designated "active".

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

Sulfuric acid CAS# 7664-93-9

Reportable quantity in pounds: 1000

Threshold planning quantity in pounds: 1000

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

Listed chemical.

**Classified hazard categories**

Corrosive to metal

Skin corrosion or irritation

Serious eye damage or eye irritation

Specific target organ toxicity (single or repeated exposure)

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

Sulfuric acid CAS# 7664-93-9, % by weight :100%

**15.5. Massachusetts Right-to-Know Substance List**

Sulfuric acid (CAS 7664-93-9)

**15.6. Pennsylvania Right-to-Know Hazardous Substances**

Sulfuric acid (CAS 7664-93-9)

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

Sulfuric acid (CAS 7664-93-9)

**15.8. California Proposition 65**

This product can expose you to Sulfuric acid, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Sulfuric acid (CAS 7664-93-9) Listed: March 14, 2003

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Sulfuric acid (CAS 7664-93-9)

**15.9 Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Sulfuric acid (CAS 7664-93-9)

**Clean Water Act (CWA) Hazardous substance**

Section 112(r) (40 CFR 68.130)

**Safe Drinking Water Act (SDWA)**

Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Sulfuric acid (CAS 7664-93-9) 6552

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Sulfuric acid (CAS 7664-93-9) 20 %WV

**DEA Exempt Chemical Mixtures Code Number**

Sulfuric acid (CAS 7664-93-9) 6552

**Food and Drug Administration (FDA)**

Total food additive

Direct food additive

GRAS food additive

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECS	KECL
Sulfuric Acid	X	X	-	X	-	-	X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

‘ – ‘ : Not listed

### **U.S. Department of Transportation**

Reportable Quantity (RQ): Y

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals. Other International Regulations

Mexico - Grade No information available.

### **U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Sulfuric Acid	X	X	X	-	X

## **SECTION 16: Other information.**

Date of issue: 1/15/2023

Revision: None

## **SECTION 17: Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.