

# Sulfuric Acid 93%

# SAFETY DATA SHEET

Preparation Date: 07-Jun-2007

Revision Date: 08-Sep-2021

Revision Number: 3

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product Identifier

**Product Name** Sulfuric Acid 93%

### Other means of identification

**Item#:** 1984

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use** Acidic product for mineral scale removal, Restricted to professional users

**Uses advised against** All other

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

**Supplier** DeLaval Cleaning Solutions  
11100 N. Congress Ave.  
Kansas City, MO 64153 : 816-891-7700, 8am – 5pm M-F

### Emergency Telephone Number

Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

### Classification

Skin Corrosion/Irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1A

### **Sulfuric acid and other mineral acids mist statement**

The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mists containing sulfuric acid" as a known human carcinogen, (IARC category 1). This classification applies only to mists containing sulfuric acid and not to sulfuric acid or sulfuric acid solutions.

Corrosive to metals	Category 1
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### Label Elements

### Emergency Overview

**DANGER**

### **Hazard Statements**

Causes severe skin burns and eye damage

May cause cancer

May be corrosive to metals

**Appearance** Clear Colorless**Physical state** Liquid**Odor** No information available**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician

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.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

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

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Sulfuric acid	7664-93-9	90 - 100

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

**Description of first-aid measures**

<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a physician immediately.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately.
<b>Inhalation</b>	Move to fresh air. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting. Drink 1 or 2 glasses of water. Call a physician or Poison Control Center immediately. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed**

Corrosive. The product causes burns of eyes, skin and mucous membranes.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

No information available.

**Specific hazards arising from the chemical**

The product causes burns of eyes, skin and mucous membranes.

**Sensitivity to static discharge** None.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**                      **Health hazards** 3              **Flammability** 0              **Instability** 0

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin, eyes and clothing. Use personal protective equipment.

**Environmental Precautions**

Prevent further leakage or spillage if safe to do so.

**Methods and material for containment and cleaning up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

**Handling**                                      Avoid contact with skin, eyes and clothing. When diluting, always add the product to water. Never add water to the product.

**Conditions for safe storage, including any incompatibilities**

**Storage**                                      Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

**Incompatible Materials**                      bases, light metals (e.g. aluminum, copper, brass, zinc galvanized), organic materials

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

Only constituents with exposure limits are listed. Any constituent not listed has no known exposure limit.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfuric acid 7664-93-9	TWA: 0.2 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

**Eye/face Protection** Safety glasses with side-shields.

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory Protection** In case of inadequate ventilation wear respiratory protection.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid	<b>Odor</b>	No information available
<b>Appearance</b>	Clear Colorless	<b>Odor Threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>
<b>pH</b>	2	
<b>Melting point/freezing point</b>	No information available	
<b>Boiling Point/Range</b>	No information available	
<b>Flash Point</b>	No information available	
<b>Evaporation rate</b>	No information available	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit</b>	No information available	
<b>Lower flammability limit</b>	No information available	
<b>Vapor Pressure</b>	No information available	
<b>Vapor Density</b>	No information available	
<b>Specific Gravity</b>	1.84	
<b>Water Solubility</b>	soluble	
<b>Partition coefficient: n-octanol/water</b>	No information available	
<b>Autoignition Temperature</b>	No information available	
<b>Decomposition temperature</b>	No information available	
<b>Viscosity of Product</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b><u>Other information</u></b>		
<b>Liquid Density</b>	No information available	

## 10. STABILITY AND REACTIVITY

**Reactivity**

May react with other chemicals. Do not mix with other chemicals except as directed on label.

**Chemical Stability**

Stable under normal conditions. Reacts violently with water.

**Possibility of hazardous reactions**

Gives off hydrogen by reaction with some metals (e.g. aluminum).

**Conditions to Avoid**

Extremes of temperature and direct sunlight.

**Incompatible Materials**

bases, light metals (e.g. aluminum, copper, brass, zinc galvanized), organic materials

#### **Hazardous decomposition products**

None known.

## 11. TOXICOLOGICAL INFORMATION

**Principal Routes of Exposure** Eye contact, Skin contact, Ingestion, Inhalation

#### **Information on likely routes of exposure**

**Eyes** Corrosive to the eyes and may cause severe damage including blindness.  
**Skin** Extremely corrosive and destructive to tissue.  
**Ingestion** Ingestion causes burns of the upper digestive and respiratory tracts.  
**Inhalation** Inhalation of mist causes irritation of respiratory system. May cause cancer after repeated inhalation of spray/aerosol.

#### **Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** Product is not identified as a sensitizer according to OSHA regulations.  
**Mutagenic effects** Product is not identified as a mutagen according to OSHA regulations.  
**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Sulfuric acid 7664-93-9	A2	Group 1	Known	X

#### **Legend:**

ACGIH (American Conference of Governmental Industrial Hygienists)  
 A2 - *Suspected Human Carcinogen*  
 IARC (International Agency for Research on Cancer)  
 Group 1 - *Carcinogenic to Humans*

**Sulfuric acid and other mineral acids mist statement** The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mists containing sulfuric acid" as a known human carcinogen, (IARC category 1). This classification applies only to mists containing sulfuric acid and not to sulfuric acid or sulfuric acid solutions.

**Reproductive Effects** Product is not identified as having reproductive effects according to OSHA regulations.  
**STOT - single exposure** Product is not identified as having single target organ toxicity (single exposure) according to OSHA regulations.

**STOT - repeated exposure** Product is not identified as having single target organ toxicity (repeated exposure) according to OSHA regulations.

**Aspiration Hazard** Product is not identified as an aspiration hazard according to OSHA regulations.

#### **Numerical measures of toxicity**

If available, toxicity values of individual components are shown below.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sulfuric acid 7664-93-9	= 2140 mg/kg ( Rat )	No data available	85 - 103 mg/m <sup>3</sup> ( Rat ) 1 h

7% of the mixture consists of ingredient(s) of unknown toxicity

## 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

If available, ecotoxicity values of individual components are shown below.

Chemical name	Algae/aquatic plants	Fish	Microtox	Waterflea
Sulfuric acid 7664-93-9	No data available	LC50 42 mg/l 96 h	No data available	EC50 42.5 mg/L 48 h

**Persistence and degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Waste Disposal Method**

Dispose of in accordance with local regulations. Should not be released into the environment.

**Contaminated Packaging**

Empty containers should be taken for local recycling, recovery or waste disposal.

**14. TRANSPORT INFORMATION****DOT**

<b>UN-No</b>	1830
<b>Proper Shipping Name</b>	Sulfuric acid with not more than 51 percent acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II

**15. REGULATORY INFORMATION****State Regulations**

<b>Chemical name</b>	<b>New Jersey</b>	<b>Massachusetts</b>	<b>Pennsylvania</b>
Sulfuric acid 7664-93-9	X	X	X

**U.S. EPA Label information****EPA Pesticide registration number** Not applicable**16. OTHER INFORMATION**

<b>Preparation Date:</b>	07-Jun-2007
<b>Revision Date:</b>	08-Sep-2021
<b>Revision Note:</b>	None

**Disclaimer**

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relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of SDS**