



# HI-VALLEY CHEMICAL

LABORATORY PRODUCTS

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# SAFETY DATA SHEET

Hi Valley Chemical

## Sulfuric Acid 93%

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Sulfuric Acid 93%  
**SDS Number:** R-018  
**Product Code:** 518039-PT, 518039-QT, 518039-1, 518039-5, 518039-30, 518039-55  
**Revision Date:** 9/16/2015  
**Version:** 1.0  
**CAS Number:** 7664-93-9  
**Chemical Formula:** H<sub>2</sub>SO<sub>4</sub>  
**Supplier Details:** High Valley Products, Inc.  
1134 West 850 North  
Centerville, Utah 84014  
**Emergency:** PERS: 800-633-8253  
**Phone:** 801-295-9591  
**Email:** sales@hvchemical.com  
**Web:** www.hvchemical.com www.hvchemical.com

### 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

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

Health, Serious Eye Damage/Eye Irritation, 1  
Health, Skin corrosion/irritation, 1 A  
Environmental, Hazards to the aquatic environment - Chronic, 3  
Health, Acute toxicity, 5 Oral  
Environmental, Hazards to the aquatic environment - Acute, 3

#### GHS Label elements, including precautionary statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



#### GHS Hazard Statements:

H318 - Causes serious eye damage  
H314 - Causes severe skin burns and eye damage  
H412 - Harmful to aquatic life with long lasting effects  
H303 - May be harmful if swallowed  
H402 - Harmful to aquatic life

#### GHS Precautionary Statements:

P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER or doctor/physician.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients:

Cas#	%	Chemical Name
7664-93-9	93%	sulfuric acid

### 4 FIRST AID MEASURES

<b>Inhalation:</b>	If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>Skin Contact:</b>	Remove contaminated clothing immediately. Wash with soap and water. Consult a physician.
<b>Eye Contact:</b>	Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Consult a physician.
<b>Ingestion:</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 5 FIRE FIGHTING MEASURES

Extinguishing media  
Suitable extinguishing media  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Special hazards arising from the substance or mixture  
Sulfur oxides  
Advice for firefighters  
Wear self-contained breathing apparatus for firefighting if necessary.  
Further information  
No data

### 6 ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures:

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

#### Environmental precautions:

Do not let product enter drains.  
Pick up excess with inert absorbant material and place into separate waste container.

### 7 HANDLING AND STORAGE

<b>Handling Precautions:</b>	Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing.
<b>Storage Requirements:</b>	Keep container tightly closed. Store in cool/dry/ventilated area.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Personal Protective Equipment:

Sulfuric acid (7664-93-9) [93%]

Personal protective equipment

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash

and dry hands. Full contact Material: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: 480 min Material tested: Vitoject (KCL 890 / Aldrich Z677698, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0.2 mm Break through time: 30 min Material tested: Dermatrill P (KCL 743 / Aldrich Z677388, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Sulfuric acid (7664-93-9) [93%]

Components with workplace control parameters

TWA	0.2 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
TWA	1 mg/m <sup>3</sup>	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
TWA	1 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z- 1 Limits for Air Contaminants

## 9

### PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Colorless.
<b>Physical State:</b>	Liquid
<b>Odor:</b>	No data available
<b>Odor Threshold:</b>	No data available
<b>Solubility:</b>	soluble
<b>Spec Grav./Density:</b>	1.8
<b>Viscosity:</b>	No data available
<b>Boiling Point:</b>	290 °C (554 °F)
<b>Freezing/Melting Pt.:</b>	3 °C (37 °F)
<b>Flash Point:</b>	No data available
<b>Partition Coefficient:</b>	No data available
<b>Vapor Pressure:</b>	1.33 hPa (1.00 mmHg) at 145.8 °C (294.4 °F)
<b>Vapor Density:</b>	3.39 - (Air = 1.0)
<b>pH:</b>	0
<b>Evap. Rate:</b>	No data available
<b>Auto-Ignition Temp:</b>	No data available
<b>Decomp Temp:</b>	No data available
<b>UFL/LFL:</b>	No data available

## 10

### STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Materials to Avoid:</b>	Bases, Halides, Organic materials, Carbides, fulminates, Nitrates, picrates, Cyanides, Chlorates, alkali

halides, Zinc  
salts, permanganates, e.g. potassium permanganate, Hydrogen peroxide, Azides, Perchlorates.,  
Nitromethane,  
phosphorous, Reacts violently with:, cyclopentadiene, cyclopentanone oxime, nitroaryl amines,  
hexalithium disilicide,  
phosphorous(III) oxide, Powdered metals

**Hazardous Decomposition:** No data available

11

## TOXICOLOGICAL INFORMATION

Sulfuric acid (7664-93-9) [93%]

Information on toxicological effects

Acute toxicity:

Oral LD50 LD50 Oral - rat - 2,140 mg/kg

Inhalation LC50 LC50 Inhalation - rat - 2 h - 510 mg/m3

Dermal LD50 no data available

Other information on acute toxicity

Skin corrosion/irritation: Skin - rabbit - Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation: Eyes - rabbit - Severe eye irritation

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

The International Agency for Research on Cancer (IARC) has determined that occupational exposure to strong-inorganic- acid mists containing sulfuric acid is carcinogenic to humans (group 1).

IARC: 1 - Group 1: Carcinogenic to humans (Sulfuric acid)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: Known to be human carcinogen (Sulfuric acid)

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicity: Specific target organ toxicity - single exposure (Globally Harmonized System):

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):

no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Causes respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. Causes skin burns. Causes skin irritation. Eyes Causes eye burns. Causes severe eye burns. Causes eye irritation.

Signs and Symptoms of Exposure: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Pulmonary edema. Effects may be delayed., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional Information:

RTECS: WS5600000

Sulfuric acid (7664-93-9) [93%]

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - *Gambusia affinis* (Mosquito fish) - 42 mg/l - 96 h.

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life with long lasting effects.

Sulfuric acid (7664-93-9) [93%]

Waste treatment methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

UN1830, Sulfuric acid with more than 51 percent acid, 8, PGII

Component (CAS#) [%] - CODES

RQ(1000LBS), Sulfuric acid (7664-93-9) [93%] CERCLA, CSWHS, EHS302, EPCRAWPC, MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TXAIR

Regulatory CODE Descriptions

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 RQ = Reportable Quantity  
 CERCLA = Superfund clean up substance  
 CSWHS = Clean water Act Hazardous substances  
 EHS302 = Extremely Hazardous Substance  
 EPCRAWPC = EPCRA Water Priority Chemicals  
 MASS = MA Massachusetts Hazardous Substances List  
 NJHS = NJ Right-to-Know Hazardous Substances  
 OSHAWAC = OSHA Workplace Air Contaminants  
 PA = PA Right-To-Know List of Hazardous Substances  
 SARA313 = SARA 313 Title III Toxic Chemicals  
 TSCA = Toxic Substances Control Act  
 TXAIR = TX Air Contaminants with Health Effects Screening Level

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**Author: HVC****Publication Date: 9/16/15****Revision No. 1.0**