



# HI-VALLEY CHEMICAL

## LABORATORY PRODUCTS

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# SAFETY DATA SHEET

Hi Valley Chemical

## Aluminum Sulfate

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Aluminum Sulfate  
**SDS Number:** R-007  
**CAS Number:** 10043-01-3  
**Chemical Formula:** Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>·14H<sub>2</sub>O  
**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

### 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  
Environmental, Hazards to the aquatic environment - Chronic, 2  
Health, Skin corrosion/irritation, 2  
Health, Specific target organ toxicity - Single exposure, 3  
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  
H411 - Toxic to aquatic life with long lasting effects  
H315 - Causes skin irritation  
H336 - May cause drowsiness or dizziness  
H402 - Harmful to aquatic life

#### GHS Precautionary Statements:

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
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.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients:

Cas#	%	Chemical Name
10043-01-3	57.6%	Aluminum sulfate (anhydrous)

### 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>	Wash with soap and water.
<b>Eye Contact:</b>	Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation.
<b>Ingestion:</b>	If swallowed, wash the mouth with plenty of water and give water to drink. If person is unconscious DO NOT give anything to drink. Get medical attention.

### 5 FIRE FIGHTING MEASURES

Extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Special hazards arising from the substance:

Sulphur oxides, Aluminum oxide  
Advice for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary.

### 6 ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### Environmental precautions:

Do not let product enter drains.

#### Containment and clean up:

Pick up and arrange disposal with creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 7 HANDLING AND STORAGE

<b>Handling Precautions:</b>	Avoid breathing dust or aerosols.
<b>Storage Requirements:</b>	Keep container tightly closed. Store in cool/dry area.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Personal Protective Equipment:</b>	Aluminum sulfate (10043-01-3) [57.6%]  Personal protective equipment  Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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. Immersion protection Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break
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through time: > 480 min Material tested:Dermatril (Aldrich Z677272, Size M)

Splash protection: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: > 30 min Material tested:Dermatril (Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, 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 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: Face shield and safety glasses 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.

Aluminum sulfate (10043-01-3) [57.6%]

Components with workplace control parameters

TWA 2 mg/m3 USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

TWA 2 mg/m3 USA. ACGIH Threshold Limit Values (TLV)

TWA 2 mg/m3 USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

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### PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	White Powder.	<b>Odor:</b>	No data available
<b>Physical State:</b>	Solid	<b>Molecular Formula:</b>	Al <sub>2</sub> O <sub>3</sub> · xH <sub>2</sub> O
<b>Odor Threshold:</b>	No data available	<b>Solubility:</b>	No data available
<b>Spec Grav./Density:</b>	1.69 g/mL	<b>Freezing/Melting Pt.:</b>	86.5 °C / 187.7 °F
<b>Viscosity:</b>	No data available	<b>Flash Point:</b>	No data available
<b>Boiling Point:</b>	No data available	<b>Vapor Density:</b>	No data available
<b>Partition Coefficient:</b>	No data available	<b>Auto-Ignition Temp:</b>	No data available
<b>Vapor Pressure:</b>	No data available	<b>UFL/LFL:</b>	No data available
<b>pH:</b>	No data available		
<b>Evap. Rate:</b>	No data available		
<b>Decomp Temp:</b>	No data available		

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### STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Conditions to Avoid:</b>	No data available.
<b>Materials to Avoid:</b>	Strong Oxidizing Agents.
<b>Hazardous Decomposition:</b>	No data available
<b>Hazardous Polymerization:</b>	No data available.

Aluminum sulfate (10043-01-3) [57.6%]

Information on toxicological effects

Acute toxicity:

Oral LD50 LD50 Oral - mouse - 6,207 mg/kg

Inhalation LC50 Dermal LD50 no data available

Other information on acute toxicity

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: Eyes - rabbit - Severe eye irritation - 24 h

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: Genotoxicity in vitro - Human - lymphocyte Micronucleus test

Sister chromatid exchange

Genotoxicity in vivo - rat - Oral Cytogenetic analysis

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

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: Reproductive toxicity - rat - Intratesticular:

Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Paternal Effects: Testes, epididymis, sperm duct.

Reproductive toxicity - mouse - Intraperitoneal:

Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Behavioral.  
no data available

Teratogenicity: no data available

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

Inhalation - May cause respiratory irritation.

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. Causes respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Signs and Symptoms of Exposure: 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: BD1700000

Aluminum sulfate (10043-01-3) [57.6%]

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 33.9 mg/l - 96 h.

Toxicity to daphnia LC50 - Daphnia magna (Water flea) - 38.2 mg/l - 48 h.

and other aquatic invertebrates

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.

Toxic to aquatic life with long lasting effects.

Aluminum sulfate (10043-01-3) [57.6%]

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.

Contaminated packaging: Dispose of as unused product.

Not DOT regulated.

Component (CAS#) [%] - CODES

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RQ(5000LBS), Aluminum sulfate (10043-01-3) [n/a%] CERCLA, CSWHS, MASS, PA, TSCA

RQ(5000LBS), Aluminum sulfate (10043-01-3) [57.6%] CERCLA, CSWHS, MASS, PA, TSCA

Regulatory CODE Descriptions

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RQ = Reportable Quantity

CERCLA = Superfund clean up substance

CSWHS = Clean Water Act Hazardous substances

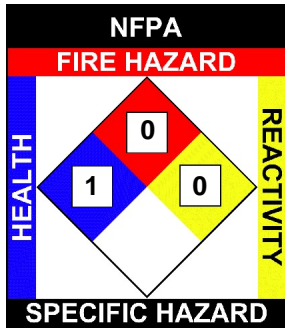
MASS = MA Massachusetts Hazardous Substances List

PA = PA Right-To-Know List of Hazardous Substances

TSCA = Toxic Substances Control Act

NFPA: Health = 1, Fire = 0, Reactivity = 0, Specific Hazard = n/a

HMIS III: Health = 2(Chronic), Fire = 0, Physical Hazard = 0



HMIS	
HEALTH	<input checked="" type="checkbox"/> 2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	<input type="checkbox"/>

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**Publication Date:** 8/14/15

**Revision No.** 1.0