



# HI-VALLEY CHEMICAL

## LABORATORY PRODUCTS

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# SAFETY DATA SHEET

Hi Valley Chemical

## Acetic Acid, Glacial

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Acetic Acid, Glacial  
**Synonyms:** Galcial acetic acid; acetic acid  
**Common Name:** Acetic Acid  
**SDS Number:** R-001  
**Product Code:** 511040-1; 511040-5; 511040-55; 511040-PT; 511040-QT  
**Revision Date:** 7/31/2015  
**Version:** 1.0  
**CAS Number:** 64-19-7  
**Chemical Family:** Organic Acid  
**Chemical Formula:** C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>  
**Product Use:** Industrial or laboratory chemical  
**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  
Health, Skin corrosion/irritation, 1 A  
Physical, Flammable Liquids, 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  
H226 - Flammable liquid and vapor

#### GHS Precautionary Statements:

P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking  
P233 - Keep container tightly closed.  
P240 - Ground/bond container and receiving equipment.  
P241 - Use explosion-proof electrical/ventilating/light/equipment.  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P264 - Wash \_ thoroughly after handling.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
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.  
P321 - Specific treatment (see \_ on this label).  
P363 - Wash contaminated clothing before reuse.  
P370+378 - In case of fire: Use \_ for extinction.  
P403+235 - Store in a well ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container to \_

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients:

Cas#	%	Chemical Name
64-19-7	100%	Acetic acid, glacial

### 4 FIRST AID MEASURES

**Inhalation:** If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.  
**Skin Contact:** Remove contaminated clothing immediately. Wash with soap and water. Get medical attention if needed.  
**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation.  
Get immediate medical attention.  
**Ingestion:** Do not induce vomiting. Never give anything by mouth to unconscious person. Rinse mouth with water. Consult physician.

### 5 FIRE FIGHTING MEASURES

**Extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
**Advice for firefighters:** Wear self contained breathing apparatus and other protective clothing.  
**Further information:** Use water spray to cool unopened containers.

### 6 ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

#### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

#### Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13)

### 7 HANDLING AND STORAGE

**Handling Precautions:** Avoid breathing vapors or mist.  
Keep away from sources of ignition.  
No smoking.  
**Storage Requirements:** Store in cool/dry area.

**Personal Protective Equipment:**

Acetic acid, glacial (64-19-7) [100%]

Personal protective equipment

Eye/face 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 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: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min  
Material tested: Butoject (KCL 897 / Aldrich Z677647, Size M)

Splash contact: Material: Nature latex/chloroprene Minimum layer thickness: 0.6 mm Break through time: 30 min Material tested: Lapren (KCL 706 / Aldrich Z677558, 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.

Body Protection: Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Acetic acid, glacial (64-19-7) [100%]

Components with workplace control parameters

TWA 10 ppm USA. ACGIH Threshold Limit Values  
(TLV)

Eye & Upper Respiratory Tract irritation  
Pulmonary function

STEL 15 ppm USA. ACGIH Threshold Limit Values  
(TLV)

Eye & Upper Respiratory Tract irritation  
Pulmonary function

ST 15 ppm USA. NIOSH Recommended  
37 mg/m<sup>3</sup> Exposure Limits

TWA 10 ppm USA. NIOSH Recommended  
25 mg/m<sup>3</sup> Exposure Limits

TWA 10 ppm USA. Occupational Exposure Limits  
25 mg/m<sup>3</sup> (OSHA) - Table Z-1 Limits for Air  
Contaminants

The value in mg/m<sup>3</sup> is approximate.

## 9

### PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Colorless liquid.	<b>Odor:</b>	Pungent
<b>Physical State:</b>	Liquid	<b>Solubility:</b>	Soluble
<b>Odor Threshold:</b>	No data available	<b>Freezing/Melting Pt.:</b>	Melting Pt: 16.2 °C (61.2 °F)
<b>Spec Grav./Density:</b>	1.049	<b>Flash Point:</b>	40 °C (104.0 °F)
<b>Viscosity:</b>	No data available.	<b>Vapor Density:</b>	No data available
<b>Boiling Point:</b>	117- 118 °C (243 - 244 °F)	<b>Auto-Ignition Temp:</b>	485.0 °C (905.0 °F)
<b>Flammability:</b>	No data available.	<b>UFL/LFL:</b>	19.9% (V) / 4% (V)
<b>Partition Coefficient:</b>	log Pow: -0.17		
<b>Vapor Pressure:</b>	No data available		
<b>pH:</b>	2.4 at 60.05 g/l		
<b>Evap. Rate:</b>	No data available.		
<b>Decomp Temp:</b>	No data available		

## 10

### STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Product is stable under normal conditions.
<b>Conditions to Avoid:</b>	Excessive heat or cold. Flame and sparks
<b>Materials to Avoid:</b>	Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols, Nitric acid
<b>Hazardous Decomposition:</b>	No data available

Acetic acid, glacial (64-19-7) [100%]

Information on toxicological effects

Acute toxicity:

LD50 Oral - rat - 3,310 mg/kg

LC50 Inhalation - mouse - 1 h - 5620 ppm Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Blood:Other changes.

LC50 Inhalation - rat - 4 h - 11.4 mg/l

LD50 Dermal - rabbit - 1,112 mg/kg

no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: Eyes - rabbit Result: Corrosive to eyes

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

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: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: AF1225000

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, Ingestion or inhalation of concentrated acetic acid causes damage to tissues of the respiratory and digestive tracts. Symptoms include: hematemesis, bloody diarrhea, edema and/or perforation of the esophagus and pylorus, pancreatitis, hematuria, anuria, uremia, albuminuria, hemolysis, convulsions, bronchitis, pulmonary edema, pneumonia, cardiovascular collapse, shock, and death. Direct contact or exposure to high concentrations of vapor with skin or eyes can cause: erythema, blisters, tissue destruction with slow healing, skin blackening, hyperkeratosis, fissures, corneal erosion, opacification, iritis, conjunctivitis, and possible blindness., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

Acetic acid, glacial (64-19-7) [100%]

Information on ecological effects

Toxicity:

Toxicity to fish semi-static test LC50 - *Oncorhynchus mykiss* (rainbow trout) - > 1,000 mg/l -:

96 h (OECD Test Guideline 203)

Toxicity to daphnia and EC50 - *Daphnia magna* (Water flea) - > 300.82 mg/l - 48 h.

other aquatic (OECD Test Guideline 202) invertebrates

Persistence and degradability: Biodegradability aerobic - Exposure time 30 d Result: 99 % - Readily biodegradable.

Remarks: Expected to be biodegradable

Biochemical Oxygen 880 mg/g Demand (BOD)

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: Additional ecological no data available information

Acetic acid, glacial (64-19-7) [100%]

Waste treatment methods

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. 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.

UN2789, Acetic acid, glacial or Acetic acid solution, with more than 80 percent acid, by mass, 8,(3), PGII

Component (CAS#) [%] - CODES

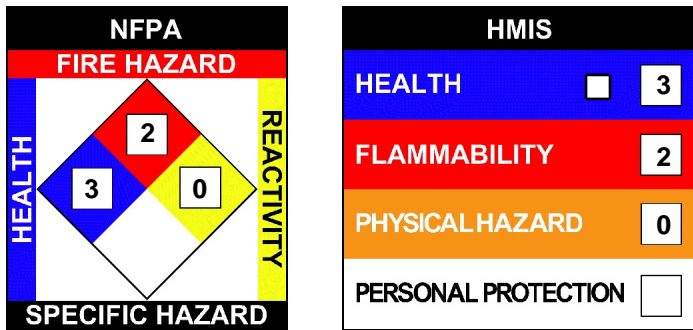
RQ(5000LBS), Acetic acid, glacial (64-19-7) [100%] CERCLA, CSWHS, HAP, MASS, OSHAWAC, PA, TSCA, TXAIR

Regulatory CODE Descriptions

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 RQ = Reportable Quantity  
 CERCLA = Superfund clean up substance  
 CSWHS = Clean Water Act Hazardous substances  
 HAP = Hazardous Air Pollutants  
 MASS = MA Massachusetts Hazardous Substances List  
 OSHAWAC = OSHA workplace Air Contaminants  
 PA = PA Right-To-Know List of Hazardous Substances  
 TSCA = Toxic Substances Control Act  
 TXAIR = TX Air Contaminants with Health Effects Screening Level

NFPA: Health = 3, Fire = 2, Reactivity = 0, Specific Hazard = n/a

HMIS III: Health = 3, Fire = 2, Physical Hazard = 0



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