



# HI-VALLEY CHEMICAL

LABORATORY PRODUCTS

1134 W. 850 N.      CENTERVILLE, UT 84014  
(801) 295-9591      Fax (801) 295-9448  
www.hvchemical.com

# SAFETY DATA SHEET

Hi Valley Chemical

## Potassium Dichromate

### 1 PRODUCT AND COMPANY IDENTIFICATION

**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

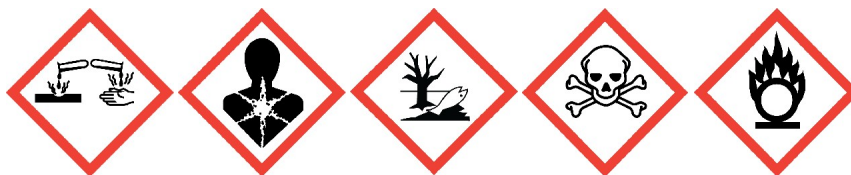
##### GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

- Physical, Oxidizing Solids, 2
- Health, Acute toxicity, 2 Oral
- Health, Acute toxicity, 1 Dermal
- Health, Skin corrosion/irritation, 1 B
- Health, Serious Eye Damage/Eye Irritation, 1
- Health, Acute toxicity, 1 Inhalation
- Health, Respiratory or skin sensitization, 1 Respiratory
- Health, Germ cell mutagenicity, 1 B
- Health, Carcinogenicity, 1 B
- Health, Reproductive toxicity, 1 B
- Health, Specific target organ toxicity - Repeated exposure, 1
- Environmental, Hazards to the aquatic environment - Acute, 1
- Environmental, Hazards to the aquatic environment - Chronic, 4

#### GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

##### GHS Hazard Pictograms:



##### GHS Hazard Statements:

- H272 - May intensify fire; oxidizer
- H300 - Fatal if swallowed
- H310 - Fatal in contact with skin
- H314 - Causes severe skin burns and eye damage
- H318 - Causes serious eye damage
- H330 - Fatal if inhaled
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H340 - May cause genetic defects
- H350 - May cause cancer
- H360 - May damage fertility or the unborn child
- H372 - Causes damage to organs through prolonged or repeated exposure
- H400 - Very toxic to aquatic life
- H413 - May cause long lasting harmful effects to aquatic life

##### GHS Precautionary Statements:

P201 - Obtain special instructions before use.  
P220 - Keep/Store away from clothing/combustible materials.  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
P264 - Wash \_ thoroughly after handling.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P284 - Wear respiratory protection.  
P302+350 - IF ON SKIN: Gently wash with soap and water.  
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
7778-50-9		Potassium dichromate (VI)

### 4 FIRST AID MEASURES

**Inhalation:** If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.  
**Skin Contact:** Remove contaminated clothing immediately. Wash with soap and water. Consult a physician.  
**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation.  
**Ingestion:** 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  
No data available

Advice for firefighters  
Wear self-contained breathing apparatus for firefighting if necessary.

Further information  
Use water spray to cool unopened containers.

### 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:**  
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental precautions:**  
Do not let product enter drains.

**Methods and materials for containment and cleaning up:**  
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 7 HANDLING AND STORAGE

**Handling Precautions:** Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or mist.

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

**Storage Requirements:**

Keep container tightly closed. Store in cool/dry area.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Personal Protective Equipment:**

Potassium dichromate (VI) (7778-50-9) []

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. Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatrill (KCL 740 / Aldrich Z677272, Size M) Splash contact 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: 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: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**Exposure Guidelines**

Potassium dichromate (VI) (7778-50-9) []

Components with workplace control parameters

CEIL 0.1 mg/m3 USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

TWA 0.0050 mg/m3 USA. Occupational Exposure Limits (OSHA) - Table Z- 1 Limits for Air Contaminants

CEIL 0.0010 mg/m3 USA. Occupational Exposure Limits (OSHA) - Table Z2

TWA 0.05 mg/m3 USA. ACGIH Threshold Limit Values (TLV)

Confirmed human carcinogen

Substance listed; for more information see OSHA document 1910.1026

See 1910.1026. See Table Z-2 for the exposure limit for any operations or sectors where the exposure limit in 1910.1026 is stayed or are otherwise not in effect.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** No data available

<b>Physical State:</b>	Solid
<b>Odor:</b>	No data available
<b>Odor Threshold:</b>	No data available
<b>Solubility:</b>	ca.29.4 g/l at 20 °C (68 °F)
<b>Spec Grav./Density:</b>	2.68
<b>Viscosity:</b>	No data available
<b>Boiling Point:</b>	No data available
<b>Freezing/Melting Pt.:</b>	Melting point/range: 390 °C (734 °F)
<b>Flash Point:</b>	No data available
<b>Partition Coefficient:</b>	log Pow: 5
<b>Vapor Pressure:</b>	No data available
<b>Vapor Density:</b>	No data available
<b>pH:</b>	3.5 - 5.0 at 29.4 g/l at 25 °C (77 °F)
<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>Chemical Stability:</b>	Stable under recommended storage conditions.
<b>Conditions to Avoid:</b>	No data available
<b>Materials to Avoid:</b>	Organic materials, do not store near acids., Powdered metal, Hydrazine.
<b>Hazardous Decomposition:</b>	Hazardous decomposition products formed under fire conditions. - Potassium oxides, Chromium oxides

## 11 TOXICOLOGICAL INFORMATION

Potassium dichromate (VI) (7778-50-9) []

Information on toxicological effects

Acute toxicity:

Oral LD50 LD50 Oral - rat - male - 168 mg/kg

LD50 Oral - rat - female - 90.5 mg/kg

Inhalation LC50 LC50 Inhalation - rat - female - 4 h - 0.088 mg/l

Dermal LD50 LD50 Dermal - rabbit - 14 mg/kg Remarks: Lungs, Thorax, or Respiration:Acute pulmonary edema. Diarrhoea Prolonged skin contact may cause skin irritation and/or dermatitis.

Other information on acute toxicity no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: May cause allergic respiratory reaction.

Germ cell mutagenicity: May alter genetic material. In vivo tests showed mutagenic effects

Carcinogenicity:

This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Possible human carcinogen

IARC: 1 - Group 1: Carcinogenic to humans (Potassium dichromate)

NTP: Known to be human carcinogen (Potassium dichromate)

OSHA: 1910.1026 (Potassium dichromate)

Reproductive toxicity: no data available

Teratogenicity: Presumed human reproductive toxicant

Specific target organ toxicity - single exposure (Globally Harmonized System):  
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):  
Inhalation - Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard: no data available

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

Signs and Symptoms of Exposure: Ulceration, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Synergistic effects: no data available

Additional Information:

RTECS: HX7680000

## 12 ECOLOGICAL INFORMATION

Potassium dichromate (VI) (7778-50-9) []

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - *Lepomis macrochirus* - 0.131 mg/l - 96.0 h.

mortality NOEC - *Pimephales promelas* (fathead minnow) - 6 mg/l - 7.0 d

Toxicity to daphnia mortality NOEC - *Daphnia* - 0.016 - 0.064 mg/l - 7 d.  
and other aquatic invertebrates

EC50 - *Daphnia magna* (Water flea) - 0.035 mg/l - 48 h

Toxicity to algae EC50 - *Pseudokirchneriella subcapitata* - 0.31 mg/l - 72 h.

Persistence and degradability: Bioaccumulative potential:

Bioaccumulation *Oncorhynchus mykiss* (rainbow trout) - 180 d Bioconcentration factor (BCF): 17.4

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.

Very toxic to aquatic life.

## 13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

## 14 TRANSPORT INFORMATION

UN3086, Toxic solids, oxidizing, n.o.s., 6.1,(5.1), PGII, (Potassium dichromate)

## 15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

-----  
Potassium dichromate (VI) (7778-50-9) [n/a%] CERCLA, CSWHS, EPCRAWPC, MASS, PA, TSCA

Regulatory CODE Descriptions

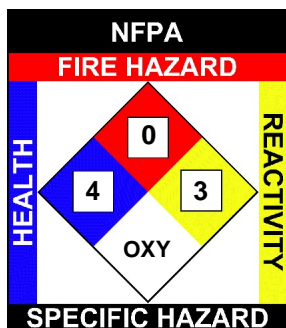
-----  
CERCLA = Superfund clean up substance  
CSWS = Clean Water Act Hazardous substances  
EPCRAWPC = EPCRA Water Priority Chemicals  
MASS = MA Massachusetts Hazardous Substances List  
PA = PA Right-To-Know List of Hazardous Substances  
TSCA = Toxic Substances Control Act

16

**OTHER INFORMATION**

NFPA: Health = 4, Fire = 0, Reactivity = 3, Specific Hazard = OXY

HMIS III: Health = 4(Chronic), Fire = 0, Physical Hazard = 3



HMIS	
HEALTH	<input checked="" type="checkbox"/> 4
FLAMMABILITY	0
PHYSICAL HAZARD	3
PERSONAL PROTECTION	<input type="checkbox"/>

**Disclaimer:**

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).