



HI-VALLEY CHEMICAL
LABORATORY PRODUCTS

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SAFETY DATA SHEET

Hi Valley Chemical

Chromium Trioxide

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Chromium Trioxide
Synonyms: Chromic Acid
SDS Number: R-051
Revision Date: 4/21/2016
Version: 1
CAS Number: 1333-82-0
Chemical Formula: CrO3
Supplier Details: High Valley Products, Inc.
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2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

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

- Physical, Oxidizing Solids, 1
- Health, Acute toxicity, 3 Oral
- Health, Acute toxicity, 3 Dermal
- Health, Skin corrosion/irritation, 1 A
- Health, Respiratory or skin sensitization, 1 Skin
- Health, Serious Eye Damage/Eye Irritation, 1
- Health, Acute toxicity, 2 Inhalation
- Health, Respiratory or skin sensitization, 1 Respiratory
- Health, Germ cell mutagenicity, 1 B
- Health, Carcinogenicity, 1 A
- Health, Reproductive toxicity, 2
- Health, Specific target organ toxicity - Repeated exposure, 1
- Environmental, Hazards to the aquatic environment - Acute, 1
- Environmental, Hazards to the aquatic environment - Chronic, 1

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

- H271 - May cause fire or explosion; strong oxidizer
- H301 - Toxic if swallowed
- H311 - Toxic in contact with skin
- H314 - Causes severe skin burns and eye damage
- H317 - May cause an allergic skin reaction
- 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
- H361 - Suspected of damaging fertility or the unborn child
- H372 - Causes damage to organs through prolonged or repeated exposure
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects

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.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P284 - Wear respiratory 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.
- P501 - Dispose of contents/container to _

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
1333-82-0	99-100%	Chromium trioxide, anhydrous

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. Promptly flush skin with soap water until all chemical is removed. 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
 Chromium 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 dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation.

Environmental precautions:
 Do not let product enter drains.

Methods and materials for containment and cleaning up:
 Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and

place container
for disposal.

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HANDLING AND STORAGE

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

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EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment: Chromium trioxide, anhydrous (1333-82-0) [99-100%]
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: Dermatril (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

Chromium trioxide, anhydrous (1333-82-0) [99-100%]

Components with workplace control parameters

TWA 0.001 mg/m³ USA. NIOSH Recommended Exposure Limits

Potential Occupational Carcinogen See Appendix C See Appendix A

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

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PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Violet
Physical State: Solid crystals

Odor:	No data available
Odor Threshold:	No data available
Solubility:	No data available
Spec Grav./Density:	2.7
Viscosity:	No data available
Boiling Point:	No data available
Freezing/Melting Pt.:	196°C (387°F)
Flash Point:	No data available
Partition Coefficient:	No data available
Vapor Pressure:	No data available
Vapor Density:	No data available
pH:	No data available
Evap. Rate:	No data available
Auto-Ignition Temp:	No data available
Decomp Temp:	No data available
UFL/LFL:	No data available

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STABILITY AND REACTIVITY

Chemical Stability:	Stable under recommended storage conditions.
Conditions to Avoid:	Heat. Avoid moisture
Materials to Avoid:	Organic materials, Phosphorus, Powdered metals.

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TOXICOLOGICAL INFORMATION

Chromium trioxide, anhydrous (1333-82-0) [99-100%]

Information on toxicological effects

Acute toxicity:

Oral LD50 LD50 Oral - rat - male and female - 52 mg/kg

Inhalation LC50 LC50 Inhalation - rat - male - 4 h - 217 mg/m3

Dermal LD50 LD50 Dermal - rabbit - male and female - 57 mg/kg

Other information on acute toxicity no data available

Skin corrosion/irritation: Skin - rabbit - Corrosive - 24 h

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

Respiratory or skin sensitisation: no data available

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.

Human carcinogen.

IARC: 1 - Group 1: Carcinogenic to humans (Chromium trioxide)

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 (Chromium trioxide)

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: May cause reproductive disorders.

Teratogenicity: Suspected human reproductive toxicant

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 fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion Toxic if swallowed. Skin Toxic if absorbed through skin. Causes skin burns. Eyes Causes eye burns. Causes severe eye burns.

Signs and Symptoms of Exposure: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

Synergistic effects: no data available

Additional Information:

RTECS: GB6650000

12 ECOLOGICAL INFORMATION

Chromium trioxide, anhydrous (1333-82-0) [99-100%]

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - Tilapia mossambica - 21.05 - 141.38 mg/l - 96.0 h.

LC0 - Leuciscus idus (Golden orfe) - 100 mg/l - 48.0 h

Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 0.8 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.

Very toxic to aquatic life with long lasting effects.

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

14 TRANSPORT INFORMATION

UN1463, Chromium trioxide, anhydrous, 5.1,(6.1,8), PGII

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

Chromium trioxide, anhydrous (1333-82-0) [99-100%] MASS, PA, TSCA

Regulatory CODE Descriptions

MASS = MA Massachusetts Hazardous Substances List
PA = PA Right-To-Know List of Hazardous Substances
TSCA = Toxic Substances Control Act

Disclaimer:

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