



Material Safety Data Sheet



HMIS

Health Hazard	4
Fire Hazard	0
Reactivity	0



PPE (See Section 15)

Section 1. Chemical Product and Company Identification

Trade Name	Alcohol Test	Code	RE2001
Manufacturer	HazTech Systems, Inc. P.O. Box 929 Mariposa, CA 95338	CAS #	7778-50-9
Commercial Name	Potassium Dichromate	RTECS	HX7680000
Synonym	Bichromate of potash; Dipotassium Dichromate; Potassium bichromate; Potassium dichromate (VI)	TSCA	TSCA8(b) inventory: Potassium Dichromate
Chemical Name	Not Available	CI #	Not Available
Chemical Family	Not Available		
Chemical Formula	K ₂ Cr ₂ O ₇		
Supplier	Spectrum Chemical Mfg. Corp. 14422 S. San Pedro St. Gardena, CA 90248		

In case of emergency contact CHEMTREC
(24 hours) at 800-424-9300

HazTech Systems, Inc. 800-337-2497
Spectrum Chemical Mfg. Corp. 310-516-8000

Section 2. Composition and Information on Ingredients

Exposure Limits

Name	CAS #	TWA (mg/m ³)	STEL	CEIL (mg/m ³)	% by Weight
Potassium Dichromate	7778-50-9	0.05			100

Toxicological Data on Ingredients Potassium Dichromate LC50: Not Available
LD50: Not Available

Section 3. Hazards Identification

Potential Acute Health Effects: Extremely hazardous in case of skin contact (permeator). Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive, sensitizer), of eye contact (corrosive), of inhalation (lung irritant). Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally blistering.

Potential Chronic Health Effects: Slightly hazardous in case of skin contact (sensitizer).
CARCINOGENIC EFFECTS: Classified A1 (confirmed for human) by ACGIH.
MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
The substance may be toxic to blood, kidneys, lungs, liver, upper respiratory tract, skin, eyes. Repeated or prolonged exposure to the substance can produce target organ damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.



Alcohol Test

Page 2 of 6

Section 4. First Aid Measures

Eye Contact <input type="checkbox"/>	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use eye ointment. Seek medical attention.
Skin Contact <input type="checkbox"/>	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention
Serious Skin Contact <input type="checkbox"/>	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
Inhalation <input type="checkbox"/>	Allow the victim to rest in a well ventilated area. Seek medical attention.
Serious Inhalation <input type="checkbox"/>	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention..
Ingestion <input type="checkbox"/>	Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.
Serious Ingestion <input type="checkbox"/>	Not available

Section 5. Fire and Explosion Data

Flammability <input type="checkbox"/>	Non-flammable.
Auto-Ignition Temperature <input type="checkbox"/>	Not applicable.
Flash Point <input type="checkbox"/>	Not applicable.
Flammable Limits <input type="checkbox"/>	Not applicable.
Products of Combustion <input type="checkbox"/>	Not available.
Fire Hazards in Presence of Various Substances <input type="checkbox"/>	Combustible materials, organic materials
Explosion Hazards in Presence of Various Substances <input type="checkbox"/>	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions <input type="checkbox"/>	Not applicable.
Special Remarks on Fire Hazards <input type="checkbox"/>	Dangerous in contact with organic materials. Contact with combustible or organic materials may cause fire. When heated to decomposition it emits toxic fumes of potassium oxide.
Special Remarks on Explosion Hazards <input type="checkbox"/>	Reacts explosively with hydrazine, and anhydrous hydroxylamine.

Section 6. Accidental Release Measures

Small Spill <input type="checkbox"/>	Use appropriate tools to put the spilled solid into a convenient waste disposal container.
Large Spill <input type="checkbox"/>	Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...) Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

**Section 7. Handling and Storage**

Precautions Keep locked up. Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from combustible material. Do not breath dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, combustible materials, organic materials.

Storage Oxidizing materials should be stored in a separate safety storage cabinet or room.

Section 8. Exposure Controls/Personal Protection

Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent Gloves.

Personal Protection in Case of a Large Spill Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits CEIL: 0.1 (mg(CrO₃/m³) from OSHA (PEL) [United States]
TWA; 0.05 (mg(Cr/m³) from ACGIH (TLV) [United States]
Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance □ Solid.		Volatility	Not available.
□			
Molecular Weight	294.2 g/mole	Odor Threshold	Not available.
pH (1% Solution in Water)	4[Acidic.]	Water/Oil Dist. Coeff.	Not available
Boiling Point	Decomposition temperature: 500°C (932°F)	Ionicity (in Water)	Not available.
Melting Point	398°C (748.4°F)	Dispersion Properties	See solubility in water.
Critical Temperature	Not available.	Solubility	Easily soluble in water. Insoluble in alcohol. □
Specific Gravity	2.676 @ 25 deg. C(Water=1) Bulk Density: 1.6 g/m ³ @ 20 deg. C	Odor	Odorless
Vapor Pressure	Not applicable.	Taste	Bitter. Metallic
Vapor Density	Not available.	Color	Orange-Red

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Incompatible materials.
Incompatibility with Various Substances	Reactive with reducing agents, combustible materials, organic materials, metals, acids, alkalis.
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Corrosivity	Not available.
Polymerization	No.



Section 11. Toxicological Information

Route of Entry	Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 25 mg/kg [Rat] Acute dermal toxicity (LD50): 14 mg/kg [Rabbit]
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified A1 (Confirmed for human). by ACGIH MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: blood, kidneys, lungs, liver, upper respiratory tract, skin, eyes.
Other Toxic Effects on Human	Extremely hazardous in case of skin contact (permeator). Very hazardous in case of skin contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive, sensitizer), of eye contact (corrosive), of inhalation (lung irritant)
Special Remarks on Toxicity to Animals	Lowest Published Lethal Dose: LDL [Man] - Route: Oral; Dose 143 mg/kg. LDL [Child] - Route: Oral; Dose 26 mg/kg
Special Remarks on Chronic Effects on Humans	Passes through the placental barrier in animal. May cause adverse reproductive effects and birth defects (teratogenic). May affect genetic material (mutagenic).
Special Remarks on Other Toxic Effects on Humans	Acute Potential Health Effects: Skin: It causes skin irritation and may cause skin burns. It can be absorbed by the skin and cause systemic effects. Deep ulceration of the skin of the hands, resulting from occupational exposure can penetrate as far as the bone in severe cases. Eyes: Causes eye irritation and may cause eye burns. It may cause severe damage with possible loss of vision, transient corneal bulging, residual irregular astigmatism, and anesthesia of the area after bulging resolves. Inhalation: Causes respiratory tract irritation. Inhalation of dust or mist can also cause irritation of the nose and eyes. Symptoms may include sneezing, rhinorrhea, throat erythema, nasal septum lesions, or perforation with bleeding, discharge, or crusting. Ingestion: Harmful if swallowed. When ingested in small amounts, it can cause burns of the esophagus, with possible stricture formation and perforation of the stomach. Symptoms may include abdominal and esophageal pain, nausea, vomiting, hypermotility, diarrhea, gastrointestinal tract irritation and bleeding, respiratory distress, cyanosis, coma, and death. It may also affect the cardiovascular system (cardiovascular shock, peripheral vascular collapse, urinary system (kidney damage- nephritis with glycosuria, acute tubular necrosis, renal failure), liver (elevated liver enzyme levels, hepatitis, hepatic failure), behavior/central nervous system/nervous system (somnia, ataxia, vertigo, muscle cramps). It may also affect the blood and cause anemia, methemoglobinemia (characterized by dizziness, drowsiness, headache, shortness of breath, cyanosis with bluish skin, rapid heart rate and chocolate-brown colored blood), thrombocytopenia. Chronic Potential Health Effects: Skin: Repeated or prolonged skin contact can produce eczematous allergic contact dermatitis with deep ulcers that do not heal. Inhalation: Repeated or prolonged inhalation can cause chronic rhinitis, coughing, dyspnea, wheezing, sub sternal pain, asthma, perforation of the nasal septum, and mucous membrane injury. Ingestion: Hexavalent chromium has been reported to cause liver and kidney damage with chronic exposure. Chronic ingestion may also affect the blood and cause anemia, methemoglobinemia (characterized by dizziness, drowsiness, headache, shortness of breath, cyanosis with bluish skin, rapid heart rate and chocolate-brown colored blood), thrombocytopenia, and may affect metabolism (weight loss). Prolonged exposure may also cause erosion and discoloration of teeth.

**Section 12. Ecological Information**

Ecotoxicity	Ecotoxicity in water (LC50): 75 mg/l 96 hours [Fish(Striped bass)]. 1.5 mg/l 24 hours [Daphnia] 17.3 mg/l 11 hours [Fish(Fathead minnow)].
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are more toxic.
Special Remarks on the Products of Biodegradation	Dangerous to aquatic life in high concentrations. Chromium probably occurs as the insoluble (CrIII) oxide (Cr2O3.nH2O) in the soil, as the organic matter in the soil is expected to reduce any soluble chromate to insoluble chromic oxide (Cr2O3). Chromium in the soil can be transported to the atmosphere by way of aerosol formation. Chromium is also transported from the soil through run-off and leaching of water. Most of the chromium in surface waters may be present in particulate from as sediment. Some of the particulate chromium would remain as suspended matter and ultimately be deposited in the sediments. Chromium present usually as (CrIII) in the soil and is characterized by its lack of mobility, except in cases where Cr(VI) is involved. Chromium (VI) of natural origin is rarely found.

Section 13. Disposal Considerations

Waste Disposal **Waste must be disposed of in accordance with federal, state and local environmental control regulations.**

Section 14. Transport Information

DOT Classification	CLASS 5.1 : Oxidizing material. CLASS 6.1 : Poisonous material.
Identification	Toxic Solids, Oxidizing, n.o.s (Potassium Dichromate) UNNA: 3086 PG:I
Special Provisions for Transport	Not available.

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations <input type="checkbox"/>	Pennsylvania RTK: Potassium dichromate. Massachusetts RTK: Potassium dichromate. <input type="checkbox"/> TSCA 8(b) inventory: Potassium dichromate. SARA 313 toxic chemical notification and release reporting: Potassium dichromate. CERCLA: Hazardous substances: Potassium dichromate.	
California Proposition 65 Warnings	California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Potassium dichromate	
Other Regulations	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)	
Other Classifications	WHMIS (Canada) CLASS C: Oxidizing material CLASS D-1A: Material causing immediate and serious toxic effects. (VERY TOXIC) CLASS D-2A: Material causing other toxic effects (VERY TOXIC). DSCL (EEC) R21- Harmful in contact with skin. R46- May cause heritable genetic damage. R25- Toxic if swallowed. R49- May cause cancer by inhalation. R26- Very toxic by inhalation. R50/53- Very toxic to aquatic organisms, may R37/38- Irritating to respiratory system/skin. cause long-term adverse effects in the R41- Risk of serious damage to eyes. aquatic environment R43- May cause sensitization by skin contact.	

**Section 16. Other Information**

Catalog Number(s) RE2001

References Not available.

Other Special Considerations Not available.

Validated by R. Turkington

Verified by R. Turkington

Call 1-800-543-5487

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.