

MSDS# 19370

Section 1 - Chemical Product and Company Identification

MSDS Name: Potassium dichromate

Catalog Numbers: AC196590000, AC196590020, AC196590500, AC196595000, AC197760000, AC197760010, AC197760010, AC197760050, AC325590000, AC424110000, AC424110050, AC424115000, AC424115000, AC9521839, AC9654808, 42411-0500, P186-3, P186-500, P188-100, P188-3, P188-500

Synonyms: Dichromic acid, dipotassium salt; Dipotassium dichromate; Potassium bichromate.

Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 7778-50-9

Chemical Name: Chromic acid, dipotassium salt

%: 100

EINECS#: 231-906-6

Hazard Symbols:

T+ O N



Risk Phrases:

45 46 60 61 21 25 26 34 42/43 48/23 50/53 8

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Strong oxidizer. Contact with other material may cause a fire. Harmful if absorbed through the skin. Cancer hazard. Causes burns by all exposure routes. May cause allergic respiratory and skin reaction. May cause harm to the unborn child. May impair fertility. May be fatal if inhaled or swallowed. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Danger of serious damage to health by prolonged exposure through inhalation. May cause heritable genetic damage. Target Organs: Blood, kidneys, liver, lungs, respiratory system, gastrointestinal system, teeth, eyes, skin.

Potential Health Effects

Eye: Causes eye burns.

Skin: Harmful if absorbed through the skin. Causes skin burns. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

Ingestion: May be fatal if swallowed. Causes gastrointestinal tract burns. May cause kidney damage. May cause perforation of the digestive tract.

Inhalation: May be fatal if inhaled. May cause allergic respiratory reaction. May cause liver and kidney damage. May cause ulceration and perforation of the nasal septum if inhaled in excessive quantities.

Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. May cause respiratory tract cancer. May cause liver and kidney damage. May cause cancer in humans.

Chronic: Laboratory experiments have resulted in mutagenic effects. Possible risk of harm to the unborn child. Repeated or prolonged exposure may cause erosion and discoloration of the teeth. May impair fertility.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Call a poison control center.

Inhalation: If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask. POISON material. If inhaled, get medical aid immediately. Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Strong oxidizer. Contact with other material may cause fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Containers may explode if exposed to fire.

Extinguishing Media: Use water only! Do NOT use dry chemical. Do NOT use halocarbons and sodium bicarbonate. Do NOT use carbon dioxide or dry chemical. Contact professional fire-fighters immediately. Cool containers with flooding quantities of water until well after fire is out.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: ; instability: OX

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Remove all sources of ignition. Carefully scoop up and place into appropriate disposal container. Provide ventilation. Do not use combustible materials such as paper towels to clean up spill.

Section 7 - Handling and Storage

Handling: Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid contact with clothing and other combustible materials. Do not ingest or inhale. Use only in a chemical fume hood. Discard contaminated shoes.

Storage: Keep away from heat, sparks, and flame. Do not store near combustible materials. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from reducing agents.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Chromic acid, dipotassium salt	0.05 mg/m ³ TWA (as Cr) (listed under Chromium (VI) compounds - water soluble).	0.001 mg/m ³ TWA (as Cr) (listed under Chromates).15 mg/m ³ IDLH (as	5 µg/m ³ TWA (listed under Chromium (VI) compounds).0.1 mg/m ³ Ceiling

	Cr(VI)) (listed	(as CrO3,
	under	applies to any
	Chromates).	operations or
		sectors for
		which the H
		exavalent
		Chromium
		standard [29 CFR
		[1910.1026] is

OSHA Vacated PELs: Chromic acid, dipotassium salt: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder
 Color: orange
 Odor: odorless
 pH: 4 (5% aq. solution)

Vapor Pressure: Not available
 Vapor Density: Not available
 Evaporation Rate: Not available
 Viscosity: Not available

Boiling Point: 500 deg C (932.00°F)
 Freezing/Melting Point: 398 deg C (748.40°F)

Decomposition Temperature:
 Solubility in water: 125 g/L (20°C)
 Specific Gravity/Density: 2.676
 Molecular Formula: K2Cr2O7
 Molecular Weight: 294.18

Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials, dust generation, excess heat, combustible materials, organic materials.
Incompatibilities with Other Materials	Reducing agents, acids, strong bases, acetic anhydride, hydrazine, hydroxylamine, nitric acid, oils, hydrochloric acid.
Hazardous Decomposition Products	Oxygen, oxides of potassium, chromium dioxide, toxic chromium oxide fumes.
Hazardous Polymerization	Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7778-50-9: HX7680000
 RTECS:
 CAS# 7778-50-9: Draize test, rabbit, eye: 140 mg Severe;

LD50/LC50: Oral, mouse: LD50 = 190 mg/kg;
Oral, rat: LD50 = 25 mg/kg;
Skin, rabbit: LD50 = 14 mg/kg;

Other: Inhalation LC50 (rat): 0.094 mg/l/4H (Merck).

Carcinogenicity: Chromic acid, dipotassium salt - California: carcinogen, initial date 2/27/87 (Chromium (VI) compounds).
NTP: Known carcinogen (Chromium (VI) compounds). IARC: Group 1 carcinogen

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Fish: Striped bass: LC50 = 75 mg/L; 96 Hr; Static bioassay
Fish: Fathead Minnow: LC50 = 17,300 ug/L; Unspecified; as chromium (Unspecified)
Fish: Bluegill/Sunfish: LC50 = 118,000-133,000 ug/L; Unspecified; as chromium (Static unmeasured)
Water flea Daphnia: EC50 = 1,570 ug/L; 24 Hr; as chromium (Unspecified)

Other: Dangerous to aquatic life in high concentrations. Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: TOXIC SOLIDS, OXIDIZING, N.O.S.

Hazard Class: 6.1

UN Number: UN3086

Packing Group: I

Canada TDG

Shipping Name: TOXIC SOLIDS, OXIDIZING, N.O.S.

Hazard Class: 6.1

UN Number: UN3086

Packing Group: I

USA RQ: CAS# 7778-50-9: 10 lb final RQ; 4.54 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T+ O N

Risk Phrases:

R 45 May cause cancer.

R 46 May cause heritable genetic damage.

R 61 May cause harm to the unborn child.

R 21 Harmful in contact with skin.

R 25 Toxic if swallowed.

R 26 Very toxic by inhalation.

R 34 Causes burns.

R 42/43 May cause sensitization by inhalation and skin contact.

R 48/23 Toxic : danger of serious damage to health by prolonged exposure through inhalation.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 60 May impair fertility.

R 8 Contact with combustible material may cause fire.

Safety Phrases:

S 53 Avoid exposure - obtain special instructions before use.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 7778-50-9: 3

Canada

CAS# 7778-50-9 is listed on Canada's DSL List

Canadian WHMIS Classifications: C, D1A, D2A, E

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7778-50-9 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 7778-50-9 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 7/19/1999

Revision #7 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
