

# Material Safety Data Sheet

## Sodium dichromate dihydrate

ACC# 21195

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Sodium dichromate dihydrate**Catalog Numbers:** AC219240000, AC219245000, S80180, NC9313698, S234-10, S234-3, S234-500, S235-100, S235-3, S235-500, S2583**Synonyms:** Sodium bichromate dihydrate.**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7789-12-0	Chromic acid, disodium salt, dihydrate	100	unlisted

**Hazard Symbols:** T+ O N**Risk Phrases:** 21 25 26 37/38 41 43 46 8 49

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: orange to red crystals. **Danger!** Strong oxidizer. Contact with other material may cause a fire. May cause allergic skin reaction. Causes digestive and respiratory tract burns. May be fatal if inhaled. Harmful if swallowed or absorbed through the skin. Causes severe eye irritation and possible eye injury. Causes skin irritation. May cause liver and kidney damage. May cause cancer by inhalation.

**Target Organs:** Kidneys, liver, respiratory system, eyes, skin.**Potential Health Effects****Eye:** Contact with eyes may cause severe irritation, and possible eye burns.**Skin:** Causes skin irritation. Harmful if absorbed through the skin. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Chrome ulcers, penetrating lesions of the skin, occur chiefly on the hand and forearm where there has been a break in the epidermis.**Ingestion:** Harmful if swallowed. Causes gastrointestinal tract burns. May cause liver and kidney damage.**Inhalation:** May be fatal if inhaled. Causes respiratory tract irritation. May cause ulceration and perforation of the nasal septum if inhaled in excessive quantities.

**Chronic:** Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated exposure may lead to asthma and perforation of the nasal septum. May cause cancer in humans.

## Section 4 - First Aid Measures

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

**Ingestion:** If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

**Inhalation:** 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. Strong oxidizer. Contact with combustible materials may cause a fire. Substance is noncombustible.

**Extinguishing Media:** Use extinguishing media most appropriate for the surrounding fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; Instability: 0; Special Hazard: 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. Do not flush into a sewer. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Isolate area and deny entry. Provide ventilation. Keep combustibles (wood, paper, oil, etc.,) away from spilled material.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Avoid contact with clothing and other combustible materials. Do not breathe dust. Use only with adequate ventilation or respiratory protection.

**Storage:** Do not store near combustible materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from reducing agents. Avoid storage on wood floors.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Chromic acid, disodium salt, dihydrate	none listed	none listed	none listed
Sodium dichromate, anhydrous	none listed	none listed	none listed

**OSHA Vacated PELs:** Chromic acid, disodium salt, dihydrate: No OSHA Vacated PELs are listed for this chemical. Sodium dichromate, anhydrous: No OSHA Vacated PELs are listed for this chemical.

### 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 gloves to prevent skin exposure.

**Clothing:** Wear a chemical apron. Wear appropriate 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 a respirator's use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Crystals

**Appearance:** orange to red

**Odor:** odorless

**pH:** 4 (10% solution)

**Vapor Pressure:** 0 mm Hg @ 20 deg C

**Vapor Density:** Not available.

**Evaporation Rate:** Not applicable.

**Viscosity:** Not available.

**Boiling Point:** 400 deg C (dec)

**Freezing/Melting Point:** 357 deg C

**Decomposition Temperature:** 400 deg C

**Solubility:** Freely Soluble.

**Specific Gravity/Density:** 2.35 g/cm<sup>3</sup> @ 20°C

**Molecular Formula:** Na<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>·2H<sub>2</sub>O

**Molecular Weight:** 298.00

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Dust generation, excess heat.

**Incompatibilities with Other Materials:** Reducing agents, anhydrides, finely powdered metals, hydrazine, hydroxylamine, sulfuric acid, organic matter, hydrochloric acid, hydrazine derivatives,

combustible materials.

**Hazardous Decomposition Products:** No data available.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 7789-12-0: HX7750000

**CAS#** 10588-01-9: HX7700000; HX7720000

**LD50/LC50:**

Not available.

CAS# 10588-01-9:

Oral, rat: LD50 = 50 mg/kg;

**Carcinogenicity:**

CAS# 7789-12-0:

**ACGIH:** A1 - Confirmed Human Carcinogen (listed as 'Chromium (VI) compounds- water solu

**California:** carcinogen, initial date 2/27/87 (listed as Chromium (VI) compounds).

**NIOSH:** potential occupational carcinogen (listed as Chromium (VI) compounds)

**NTP:** Known carcinogen (listed as Chromium (VI) compounds).

**OSHA:** Select carcinogen (listed as Chromium (VI) compounds).

**IARC:** Group 1 carcinogen (listed as Chromium (VI) compounds). CAS# 10588-01-9:

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**NIOSH:** potential occupational carcinogen (listed as Chromium (VI) compounds)

**NTP:** Known carcinogen (listed as Chromium (VI) compounds).

**OSHA:** Select carcinogen (listed as Chromium (VI) compounds).

**IARC:** Group 1 carcinogen (listed as Chromium (VI) compounds).

**Epidemiology:** Certain hexavalent chromium compounds have been demonstrated to be carcinogenic on the basis of epidemiological investigations on workers and experimental studies in animals.

**Teratogenicity:** No data available.

**Reproductive Effects:** No information available.

**Neurotoxicity:** No information available.

**Mutagenicity:** A mutagenic effect has been demonstrated in animal studies on mammals.

**Other Studies:** See actual entry in RTECS for complete information.

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** No information available.

**Physical:** No information available.

**Other:** Concentration in organisms possible. Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts

261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	OXIDIZING SOLID, TOXIC, N.O.S.				No information available.
<b>Hazard Class:</b>	5.1				
<b>UN Number:</b>	UN3087				
<b>Packing Group:</b>	III				

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 7789-12-0 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

CAS# 10588-01-9 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

CAS# 10588-01-9: Present

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### SARA

#### CERCLA Hazardous Substances and corresponding RQs

CAS# 10588-01-9: 10 lb final RQ; 4.54 kg final RQ

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 7789-12-0: acute, chronic, flammable. CAS # 10588-01-9: acute, chronic, flammable.

#### Section 313

This material contains Chromic acid, disodium salt, dihydrate (listed as Chromium (VI) compounds), 100%, (CAS# 7789-12-0) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373. This chemical is not at a high enough concentration to be reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

CAS# 10588-01-9 is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 7789-12-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 10588-01-9 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations****European Labeling in Accordance with EC Directives****Hazard Symbols:**

T+ O N

**Risk Phrases:**

R 21 Harmful in contact with skin.

R 25 Toxic if swallowed.

R 26 Very toxic by inhalation.

R 37/38 Irritating to respiratory system and skin.

R 41 Risk of serious damage to eyes.

R 43 May cause sensitization by skin contact.

R 46 May cause heritable genetic damage.

R 8 Contact with combustible material may cause fire.

R 49 May cause cancer by inhalation.

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

**Safety Phrases:**

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

S 53 Avoid exposure - obtain special instructions before use.

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# 7789-12-0: No information available.

CAS# 10588-01-9: 3

**Canada - DSL/NDSL**

CAS# 10588-01-9 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D2A, C, D1A.

**Canadian Ingredient Disclosure List**

CAS# 7789-12-0 is not listed on the Canadian Ingredient Disclosure List.

CAS# 10588-01-9 is listed on the Canadian Ingredient Disclosure List.

**Exposure Limits**

## Section 16 - Additional Information

**MSDS Creation Date:** 10/29/1998

**Revision #5 Date:** 4/04/2003

*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 Fisher 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 Fisher has been advised of the possibility of such damages.*