



Material Safety Data Sheet  
Sodium dichromate dihydrate

MSDS# 21195

Section 1 - Chemical Product and Company Identification

MSDS Name: Sodium dichromate dihydrate

Catalog AC219240000, AC219240010, AC219240025, AC219240050, AC388140000, AC388140010

Numbers: AC388140010, S234-10, S234-3, S234-500, S235-100, S235-3, S235-500, S258-3

Synonyms: Sodium bichromate

Company Identification:

Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

Company Identification: (USA)

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call:

800-ACROS-01

For information in Europe, call:

+32 14 57 52 11

Emergency Number, Europe:

+32 14 57 52 99

Emergency Number US:

201-796-7100

CHEMTREC Phone Number, US:

800-424-9300

CHEMTREC Phone Number, Europe:

703-527-3887

Section 2 - Composition, Information on Ingredients

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Risk Phrases:

CAS#: 7789-12-0  
Chemical Name: Sodium dichromate dihydrate  
%: 99-100  
EINECS#: unlisted  
Hazard Symbols:

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Text for R-phrases: see Section 16

Hazard Symbols:



T+ O N



Risk Phrases:

45 46 49 60 61 21 25 26 34 37/38 41 42/43 43 48/23  
50/53 8

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Harmful if absorbed through the skin. Cancer hazard. Contact with other material may cause fire. Causes burns by all exposure routes. May cause sensitization by inhalation and by skin contact. Toxic if swallowed. Toxic if inhaled. May cause harm to the unborn child. May impair fertility. 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, heart, lungs, respiratory system, eyes, skin, bladder, ureter.

Potential Health Effects

Eye: Causes eye burns. Contact with eyes may cause severe irritation, and possible eye burns. May cause redness,

	pain, blurred vision and possible eye damage.
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:	Poison by ingestion. Causes gastrointestinal tract burns. May cause kidney damage. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns.
Inhalation:	May cause allergic respiratory reaction. May cause liver and kidney damage. Causes chemical burns to the respiratory tract. Excessive inhalation may cause minor respiratory irritation. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Toxic if inhaled. May cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.
Chronic:	Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. Prolonged or repeated exposure may lead to asthma and perforation of the nasal septum. May cause respiratory tract cancer. May cause liver and kidney damage. Chronic inhalation may cause nasal septum ulceration and perforation. May cause cancer in humans. May alter genetic material. 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.
Inhalation:	Get medical aid immediately. Remove from exposure and move to fresh air immediately. 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 other material may cause fire. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.
Extinguishing Media:	Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Cool containers with flooding quantities of water until well after fire is out.
Autoignition Temperature:	Not available
Flash Point:	Not available
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:	Avoid runoff into storm sewers and ditches which lead to waterways. Avoid generating dusty conditions. Carefully scoop up and place into appropriate disposal container.

#### Section 7 - Handling and Storage

Handling:	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 ingest or inhale. Use only in a chemical fume hood.
Storage:	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
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Sodium dichromate dihydrate	0.05 mg/m3 TWA (as Cr) (listed under Chromium (VI) compounds- water soluble).	0.001 mg/m3 TWA (as Cr) (listed under Chromates).15 mg/m3 IDLH (as Cr(VI)) (listed under Chromates).	5 æg/m3 TWA (listed under Chromium (VI) compounds).0.1 mg/m3 Ceiling (as CrO3, applies to any operations or sectors for which the H exavalent Chromium standard [29 CFR 1910.1026] is
Sodium dichromate, anhydrous	0.05 mg/m3 TWA (as Cr) (listed under Chromium (VI) compounds- water soluble).	0.001 mg/m3 TWA (as Cr) (listed under Chromates).15 mg/m3 IDLH (as Cr(VI)) (listed under Chromates).	5 æg/m3 TWA (listed under Chromium (VI) compounds).0.1 mg/m3 Ceiling (as CrO3, applies to any operations or sectors for which the H exavalent Chromium standard [29 CFR 1910.1026] is

OSHA Vacated PELs: Sodium dichromate dihydrate: None listed Sodium dichromate, anhydrous: 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.

#### 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: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

#### Section 9 - Physical and Chemical Properties

Physical State: Crystals

Color: orange to red - orange

Odor: odorless

pH: 3.5-3.9 (5% aq.sol.)

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not applicable.

Viscosity: Not available

Boiling Point: 400 deg C @760mmHg ( 752.00°F)

Freezing/Melting Point: 357 deg C ( 674.60°F)

Decomposition Temperature:

Solubility in water: 1800 g/l water (20°C)

Specific Gravity/Density:

Molecular Formula: Cr2Na2O7.2H2O

Molecular Weight: 298

#### Section 10 - Stability and Reactivity

Chemical Stability:	Not currently available.
Conditions to Avoid:	Incompatible materials, dust generation, combustible materials, organic materials.
Incompatibilities with Other Materials	Water, oxidizing agents, reducing agents, acids, strong bases, acetic anhydride, hydrazine, hydroxylamine, iron, magnesium, nitric acid, oils, sulfuric acid, boron, hydrochloric acid, glycerol, metal powders, silicon, ethanol, 2-propanol.
Hazardous Decomposition Products	Oxygen, sodium oxide, toxic chromium oxide fumes.
Hazardous Polymerization	Will not occur.

#### Section 11 - Toxicological Information

RTECS#:	CAS# 7789-12-0: HX7750000 CAS# 10588-01-9: HX7700000 HX7720000 RTECS: Not available. RTECS:
LD50/LC50:	<b>CAS# 10588-01-9:</b> Oral, rat: LD50 = 50 mg/kg; Other: LC50 (inhalation, rat): 0.124 mg/l/4H, LD50 (dermal, rabbit): 1000 mg/kg. Sodium dichromate dihydrate - California: carcinogen, initial date 2/27/87 (Chromium (VI) compounds). NTP: Known carcinogen (Chromium (VI) compounds). IARC: Group 1 carcinogen (Chromium (VI) compounds).
Carcinogenicity:	Sodium dichromate, anhydrous - 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. Mutagen. Teratogen.

#### Section 12 - Ecological Information

Ecotoxicity:	Fish: Fathead Minnow: EC50 = 425-488 mg/L; 96 H; LC50 Fish: Bluegill/Sunfish: EC50 = 425-488 mg/L; 96H; LC50
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#### Section 13 - Disposal Considerations

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

#### Section 14 - Transport Information

US DOT

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

Hazard Class: 5.1

UN Number: UN3087

Packing Group: III

Canada TDG

Shipping Name: OXIDIZING SOLID, TOXIC, N.O.S.\*

Hazard Class: 5.1

UN Number: UN3087

Packing Group: II

USA RQ: CAS# 10588-01-9: 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 49 May cause cancer by inhalation.

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 37/38 Irritating to respiratory system and skin.
- R 41 Risk of serious damage to eyes.
- R 42/43 May cause sensitization by inhalation and skin contact.
- R 43 May cause sensitization by 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# 7789-12-0: Not available

CAS# 10588-01-9: 3

Canada

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

Canadian WHMIS Classifications: D2A, C, D1A

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# 7789-12-0 is not listed on Canada's Ingredient Disclosure List.

CAS# 10588-01-9 is listed on Canada's Ingredient Disclosure List

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.

Section 16 - Other Information

MSDS Creation Date: 10/29/1998

Revision #13 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.

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