1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Sodium dichromate dihydrate
Product Number : 398063
Brand : Sigma-Aldrich
Company : Sigma-Aldrich
Telephone : +18003255832
Fax : +18003255052
Emergency Phone # : (314) 776-6555

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Target Organ Effect, Highly toxic by inhalation, Highly toxic by ingestion, Respiratory sensitiser, Corrosive, Carcinogen, Teratogen, Reproductive hazard

Target Organs
Liver, Kidney

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)
H272 May intensify fire; oxidiser.
H300 Fatal if swallowed.
H312 + H332 Harmful in contact with skin or if inhaled.
H314 Causes severe skin burns and eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H340 May cause genetic defects.
H350 May cause cancer.
H360 May damage fertility or the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure if inhaled.
H400 Very toxic to aquatic life.

Precautionary statement(s)
P201 Obtain special instructions before use.
P220 Keep/Store away from clothing/ combustible materials.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously 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.

HMIS Classification
Health hazard: 4
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 0

NFPA Rating
Health hazard: 4
Fire: 0
Reactivity Hazard: 0

Physical hazards: 0

Potential Health Effects

Inhalation
May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Skin
May be harmful if absorbed through skin. Causes skin burns. May be fatal if absorbed through skin.

Eyes
Causes eye burns.

Ingestion
May be fatal if swallowed. Causes burns.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Sodium bichromate

Formula : \( \text{Cr}_2\text{Na}_2\text{O}_7 \cdot 2\text{H}_2\text{O} \)

Molecular Weight : 298.00 g/mol

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Concentration</th>
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</thead>
<tbody>
<tr>
<td>7789-12-0</td>
<td>234-190-3</td>
<td>024-004-00-7</td>
<td>-</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus for fire fighting if necessary.

Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear respiratory protection. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.
**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**
Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

**Precautions for safe handling**
Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from combustible material.

**Conditions for safe storage**
Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Remarks</th>
<th>Substance listed; for more information see OSHA document 1910.1026</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>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.</td>
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</tbody>
</table>

**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.

**Eye protection**
Face shield and safety glasses

**Skin and body protection**
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

<table>
<thead>
<tr>
<th>Form</th>
<th>solid</th>
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**Safety data**

<table>
<thead>
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<th>pH</th>
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<tbody>
<tr>
<td>Melting point</td>
<td>91 °C (196 °F) - lit.</td>
</tr>
<tr>
<td>Boiling point</td>
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</tr>
<tr>
<td>Flash point</td>
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</tr>
<tr>
<td>Ignition temperature</td>
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</tr>
<tr>
<td>Lower explosion limit</td>
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</tr>
<tr>
<td>Upper explosion limit</td>
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<tr>
<td>Density</td>
<td>2.350 g/cm³</td>
</tr>
<tr>
<td>Water solubility</td>
<td>no data available</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

   Chemical stability
   Stable under recommended storage conditions.

   Conditions to avoid
   no data available

   Materials to avoid
   Strong reducing agents, Alcohols

   Hazardous decomposition products
   Hazardous decomposition products formed under fire conditions. - Sodium oxides, Chromium oxides

11. TOXICOLOGICAL INFORMATION

   Acute toxicity
   LD50 Oral - rat - 50 mg/kg

   Skin corrosion/irritation
   no data available

   Serious eye damage/eye irritation
   no data available

   Respiratory or skin sensitization
   May cause allergic respiratory reaction.

   Germ cell mutagenicity
   May alter genetic material.
   In vivo tests showed mutagenic effects

   Genotoxicity in vitro - rat - Liver
   DNA damage

   Genotoxicity in vitro - Hamster - Lungs
   Sister chromatid exchange

   Genotoxicity in vivo - rat - Intratracheal
   DNA damage

   Carcinogenicity
   Carcinogenicity - rat - Intratracheal
   Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors.

   This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

   Possible human carcinogen

   IARC: 1 - Group 1: Carcinogenic to humans (Sodium dichromate dihydrate)

   NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

   Reproductive toxicity
   May cause congenital malformation in the fetus.
   Presumed human reproductive toxicant

   May cause reproductive disorders.

   Specific target organ toxicity - single exposure (GHS)
   no data available

   Specific target organ toxicity - repeated exposure (GHS)
   Inhalation - Causes damage to organs through prolonged or repeated exposure.
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
May be fatal if swallowed. Causes burns.

Skin
May be harmful if absorbed through skin. Causes skin burns. May be fatal if absorbed through skin.

Eyes
Causes eye burns.

Signs and Symptoms of Exposure
Ulceration, Liver injury may occur., Kidney injury may occur.

Additional Information
RTECS: HX7750000

12. ECOLOGICAL INFORMATION

Toxicity
no data available

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 organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product
Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN-Number: 3086  Class: 6.1 (5.1)  Packing group: I
Proper shipping name: Toxic solids, oxidizing, n.o.s. (Sodium dichromate dihydrate)
Reportable Quantity (RQ): 10 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN-Number: 3086  Class: 6.1 (5.1)  Packing group: I  EMS-No: F-A, S-Q
Proper shipping name: TOXIC SOLID, OXIDIZING, N.O.S. (Sodium dichromate dihydrate)
Marine pollutant: No

IATA
UN-Number: 3086  Class: 6.1 (5.1)  Packing group: I
Proper shipping name: Toxic solid, oxidizing, n.o.s. (Sodium dichromate dihydrate)
IATA Passenger: Not permitted for transport

15. REGULATORY INFORMATION

**OSHA Hazards**
Target Organ Effect, Highly toxic by inhalation, Highly toxic by ingestion, Respiratory sensitiser, Corrosive, Carcinogen, Teratogen, Reproductive hazard

**DSL Status**
All components of this product are on the Canadian DSL list.

**SARA 302 Components**
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

<table>
<thead>
<tr>
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**SARA 311/312 Hazards**
Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

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**Pennsylvania Right To Know Components**

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**New Jersey Right To Know Components**

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**California Prop. 65 Components**

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16. OTHER INFORMATION

**Further information**
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