



Health	3
Fire	0
Reactivity	0
Personal Protection	E

# Material Safety Data Sheet

## Sodium chromate tetrahydrate MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Sodium chromate tetrahydrate  
**Catalog Codes:** SLS3841  
**CAS#:** 10034-82-9  
**RTECS:** GB2958300  
**TSCA:** TSCA 8(b) inventory: No products were found.  
**CI#:** Not available.  
**Synonym:** Disodium Chromate, tetrahydrate  
**Chemical Name:** Chromic Acid, disodium salt, tetrahydrate  
**Chemical Formula:** Na<sub>2</sub>CrO<sub>4</sub>.4H<sub>2</sub>O

**Contact Information:**  
**Sciencelab.com, Inc.**  
14025 Smith Rd.  
Houston, Texas 77396  
US Sales: **1-800-901-7247**  
International Sales: **1-281-441-4400**  
Order Online: [ScienceLab.com](http://ScienceLab.com)  
**CHEMTREC (24HR Emergency Telephone), call:**  
1-800-424-9300  
**International CHEMTREC, call:** 1-703-527-3887  
**For non-emergency assistance, call:** 1-281-441-4400

### Section 2: Composition and Information on Ingredients

#### Composition:

Name	CAS #	% by Weight
Sodium chromate tetrahydrate	10034-82-9	100

**Toxicological Data on Ingredients:** Sodium chromate tetrahydrate: DERMAL (LD50): Acute: 101 mg/kg [Rabbit].

### Section 3: Hazards Identification

#### Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, . Hazardous in case of skin contact (corrosive, sensitizer), of eye contact (corrosive), of inhalation (lung irritant). 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:

**CARCINOGENIC EFFECTS:** Classified A1 (Confirmed for human.) by ACGIH, 1 (Proven for human.) by IARC. **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, liver, upper respiratory tract. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

### Section 4: First Aid Measures

**Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

**Skin Contact:**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Serious Inhalation:**

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. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

**Ingestion:**

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Serious Ingestion:** Not available.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** Not applicable.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** combustible materials, organic materia

**Explosion Hazards in Presence of Various Substances:**

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:** Not applicable.

**Special Remarks on Fire Hazards:**

Toxic chromium oxide fumes may form in fire. May increase intensity of fire when in contact with combustible material. Contact with combustible or organic materials may cause fire. When heated to decomposition it emits toxic fumes of sodium oxide

**Special Remarks on Explosion Hazards:** Hydrazine is decomposed explosively by chromates

## Section 6: Accidental Release Measures

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container.

**Large Spill:**

Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. 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 container dry. Do not ingest. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as combustible materials, organic materials.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

## 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:

TWA: 0.05 (mg (Cr)/m) from ACGIH (TLV) [United States] Consult local authorities for acceptable exposure limits.

## Section 9: Physical and Chemical Properties

### Physical state and appearance:

Solid. (Crystals solid. Somewhat deliquescent crystals solid.)

**Odor:** Odorless.

**Taste:** Not available.

**Molecular Weight:** 234.06 g/mole

**Color:** Yellow.

**pH (1% soln/water):** Not available.

**Boiling Point:** Not available.

**Melting Point:** Not available.

**Critical Temperature:** Not available.

**Specific Gravity:** Density: 2.723 (Water = 1)

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water.

**Solubility:**

Soluble in cold water. Slightly soluble in ethyl alcohol, methyl alcohol. Soluble in 1 part of water.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Store away from combustibles; avoid high temperatures; keep well closed.

**Incompatibility with various substances:** Reactive with combustible materials, organic materials.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Any combustible, organic, or readily oxidizable material (paper, wood, sulfur, aluminum, plastics)

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

**Toxicity to Animals:** Acute dermal toxicity (LD50): 101 mg/kg [Rabbit].

### Chronic Effects on Humans:

**CARCINOGENIC EFFECTS:** Classified A1 (Confirmed for human.) by ACGIH, 1 (Proven for human.) by IARC. **MUTAGENIC EFFECTS:** Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: blood, kidneys, liver, upper respiratory tract.

### Other Toxic Effects on Humans:

Very hazardous in case of skin contact (irritant, permeator), of ingestion, . Hazardous in case of skin contact (corrosive, sensitizer), of eye contact (corrosive), of inhalation (lung irritant).

**Special Remarks on Toxicity to Animals:** Not available.

### Special Remarks on Chronic Effects on Humans:

May affect genetic material (mutagenic). May cause adverse reproductive effects based on animal test data.

### Special Remarks on other Toxic Effects on Humans:

**Acute Potential Health Effects:** Skin: Corrosive. It causes severe skin irritation with redness and pain, and may cause burns. Contact with broken skin may cause ulcers (chromic sores) and absorption which may cause systemic poisoning. It may be fatal if absorbed through skin. May affect behavior/central nervous system/nervous system (somnolence, muscle weakness, flaccid paralysis without anesthesia), function) if absorbed through skin. May cause skin sensitization or dermatitis. Eyes: Corrosive. Contact can cause blurred vision, redness, pain, severe irritation, conjunctivitis, and corneal tissue burns. It may cause corneal injury or blindness. Inhalation: Causes respiratory tract irritation. It is destructive to the tissues of the mucous membranes and upper respiratory tract. It may cause ulceration and perforation of the nasal septum. Symptoms may include sore throat, coughing, shortness of breath, and labored breathing. It may produce pulmonary edema, sensitization or allergic asthma. Higher exposures may cause pulmonary edema. Ingestion: Corrosive. Harmful if swallowed. Ingestion can cause severe burns of the mouth, throat, and stomach, leading to death. It can cause sore throat, intense thirst, muscle cramps, vomiting, nausea, diarrhea, violent gastroenteritis, violent epigastric pain, peripheral vascular collapse, liver damage (elevated liver enzymes, acute hepatic failure), acute renal failure, renal tubular necrosis, mydriasis, and may affect behavior (somnolence, dizziness, coma), respiration (respiratory distress syndrome), cardiovascular system (hypotension or hypertension, dysrhythmia, circulatory collapse, shock), and blood. **Chronic Potential Health Effects:** Repeated or prolonged exposure can cause ulceration and perforation of the nasal septum, respiratory tract irritation, bronchitis, pulmonary fibrosis, emphysema, asthma, liver and kidney damage, and ulceration of the skin. Ulcerations at first may be painless, but may penetrate to the bone producing "chromic holes." respiration, liver function, urinary system (kidney

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**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 less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

### 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 6.1: Poisonous material.

**Identification:** : Toxic solid, inorganic, n.o.s (sodium chromate) UNNA: 3288 PG: II

**Special Provisions for Transport:** Not available.

### Section 15: Other Regulatory Information

**Federal and State Regulations:**

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: Sodium chromate tetrahydrate  
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Sodium chromate tetrahydrate  
Connecticut hazardous material survey.: Sodium chromate tetrahydrate  
Illinois chemical safety act: Sodium chromate tetrahydrate  
New York release reporting list: Sodium chromate tetrahydrate  
Pennsylvania RTK: Sodium chromate tetrahydrate  
Massachusetts RTK: Sodium chromate tetrahydrate  
Massachusetts spill list: Sodium chromate tetrahydrate  
New Jersey: Sodium chromate tetrahydrate  
New Jersey spill list: Sodium chromate tetrahydrate  
Louisiana spill reporting: Sodium chromate tetrahydrate  
SARA 313 toxic chemical notification and release reporting: Sodium chromate tetrahydrate  
CERCLA: Hazardous substances.: Sodium chromate tetrahydrate: 10 lbs. (4.536 kg)

**Other Regulations:**

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications:**

**WHMIS (Canada):**

CLASS C: Oxidizing material. CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

**DSCL (EEC):**

R21- Harmful in contact with skin. R25- Toxic if swallowed. R26- Very toxic by inhalation. R37/38- Irritating to respiratory system and skin. R41- Risk of serious damage to eyes. R43- May cause sensitization by skin contact. R46- May cause heritable genetic damage. R49- May cause cancer by inhalation. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S53- Avoid exposure - obtain special instructions before use. S60- This material and its container must be disposed of as hazardous waste. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

**HMIS (U.S.A.):**

**Health Hazard:** 3

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:** E

**National Fire Protection Association (U.S.A.):**

**Health:** 3

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:**

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

## Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/09/2005 06:30 PM

**Last Updated:** 11/01/2010 12:00 PM

*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 ScienceLab.com 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 ScienceLab.com has been advised of the possibility of such damages.*