



# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard 2012

Revision date: 01-Jul-2016

Supersedes: 26-Sep-2014

SDS 30025

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product Identifier

Product name: Sodium Dichromate Dihydrate

### Other means of identification

Synonyms: Sodium Bichromate

### Recommended use of the chemical and restrictions on use

Product Use Description: Surface treatment  
Intermediate

**Distributed by:**  
**SAL Chemical**  
3036 Birch Drive,  
Weirton, WV 26062  
304.748.8200 - Phone  
304.797.8751 - Fax

### Details of the supplier of the safety data sheet

**Company/Undertaking Identification** Elementis Chromium Inc.  
3800 Buddy Lawrence Dr.  
Corpus Christi, Texas 78407  
USA  
Tel: +1 (800) 531- 3188

Elementis Chromium Inc.  
5408 Holly Shelter Road  
Castle Hayne, NC 28429  
USA  
Tel: +1 (910) 675-7223

### Emergency Telephone Number

For hazardous materials incidents only call  
CHEMTREC Emergency Response Number: 1-800-424-9300 (+1-703-527-3887  
International)

sds.chromium@elementis.com

## 2. HAZARDS IDENTIFICATION

### Classification

### OSHA Regulatory Status

This product is considered hazardous as defined under OSHA's Hazard Communication Standard (29 CFR 1910.1200).

Acute Toxicity - Oral	Category 3
Acute Toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	Category 1A
Skin Sensitization	Category 1
Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1B
Reproductive toxicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 1
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1
Oxidizing solids	Category 2

### Label Elements

## EMERGENCY OVERVIEW

**Danger****Hazard Statements**

Toxic if swallowed  
Harmful in contact with skin  
Fatal if inhaled  
Causes severe skin burns and eye damage  
May cause allergy or asthma symptoms or breathing difficulties if inhaled  
May cause an allergic skin reaction  
May cause genetic defects  
May cause cancer  
May damage fertility or the unborn child  
Causes damage to organs through prolonged or repeated exposure  
Very toxic to aquatic life with long lasting effects  
May intensify fire; oxidizer

**Appearance:** Crystalline**Physical state:** Solid**Odor:** Odourless**Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not breathe dust/fume/gas/mist/vapors/spray  
Do not get in eyes, on skin, or on clothing  
Do not eat, drink or smoke when using this product  
Wash hands thoroughly after handling  
Wear respiratory protection  
Wear protective gloves/protective clothing/eye protection/face protection  
Contaminated work clothing should not be allowed out of the workplace  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Keep/Store away from clothing/ incompatible /combustible materials  
Avoid release to the environment

**Precautionary Statements - Response**

IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing, Immediately call a POISON CENTER or doctor/physician  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower, Take off contaminated clothing and wash before reuse  
Call a POISON CENTER or doctor/physician  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing, Immediately call a POISON CENTER or doctor/physician  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician, Rinse mouth  
Do NOT induce vomiting  
In case of fire: Use Water spray, fog or regular foam for extinction  
Carbon dioxide (CO<sub>2</sub>)

**Precautionary Statements - Storage**

Store locked up  
Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)****Other Information**

None known

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components	CAS-No	Weight %
Sodium Dichromate, Dihydrate	7789-12-0	100 %

**4. FIRST AID MEASURES****FIRST AID MEASURES****General Advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

**Inhalation:**

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. If breathing has stopped, apply artificial respiration. Call a physician immediately.

**Skin contact:**

Wash off immediately with soap and plenty of water. Call a physician immediately.

**Eye contact:**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

**Ingestion**

Call a physician or Poison Control Center immediately. Do not induce vomiting without medical advice. If victim is fully conscious, give a cupful of water. If swallowed, seek medical advice immediately and show this SDS or label. Never give anything by mouth to an unconscious person.

**Protection of first-aiders:**

Avoid contact with skin and eyes.

**Most important symptoms and effects, both acute and delayed****Most Important Symptoms and Effects**

Risk of serious damage to eyes. Difficulty in breathing. Dizziness. Drowsiness, Coughing and/ or wheezing. Abdominal pain, nausea, vomiting, diarrhea. In extreme case it may cause serious damage to health. Circulatory collapse. Weakness. Increased pulse rate. Coma. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Indication of any immediate medical attention and special treatment needed****Notes to physician**

Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

Use Water spray, fog or regular foam for extinction  
Carbon dioxide (CO<sub>2</sub>)

**Extinguishing media which must not be used for safety reasons**

None

**Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases**

May intensify fire; oxidizer

**Unusual Fire and Explosion Hazards:**

May emit toxic fumes under fire conditions

**Hazardous combustion products**

Chromium oxides

**Explosion data****Explosive properties:**

Not explosive

**Reactivity Hazard:**

May intensify fire; oxidizer. May react with oxidizable materials

**Special protective equipment for fire-fighters**

In the event of fire, wear self-contained breathing apparatus.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures****Personal precautions**

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment.

**Other Information:**

See Section 12 for more information.

**Environmental precautions****Environmental precautions:**

Do not allow material to contaminate soil or ground water system. Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Do not allow any environmental contamination. Local authorities should be advised if significant spillages cannot be contained.

**Methods and material for containment and cleaning up****Clean-up methods:**

Do not create a powder cloud by using a brush or compressed air. Take up with a HEPA vacuum or mechanically and collect in suitable container for disposal. Do not use combustible materials for containment or clean-up. Clean contaminated surface thoroughly. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

**7. HANDLING AND STORAGE****Precautions for Safe Handling****Handling:**

Do not breathe vapours/dust. Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling. Wear personal protective equipment.

**Conditions for safe storage, including any incompatibilities****Storage Conditions**

Keep containers tightly closed in a cool, well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep product and empty container away from incompatible materials.

**Additional Storage:**

Keep away from heat and sources of ignition

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure Guidelines**

Components	ACGIH TLV	AIHA TLV	OSHA TWA	IDLH:
Sodium Dichromate, Dihydrate 7789-12-0	TWA: 0.05 mg/m <sup>3</sup>			

Components	OSHA PEL (8h TWA)	OSHA Action Level (8h TWA)	OES - Short-term STEL
Sodium Dichromate, Dihydrate	0.005 mg/m <sup>3</sup> Cr(VI)	0.0025 mg/m <sup>3</sup> Cr(VI)	

### Appropriate engineering controls

#### Engineering Measures

Maintain adequate engineering controls and/or ventilation to keep hazardous ingredients below their statutory limits. Use an approved respirator whenever exposure limits are exceeded. It may be necessary, dependent on the user's assessment of process employed to undertake a program of monitoring to demonstrate that statutory exposure limits are not exceeded.

### Individual protection measures, such as personal protective equipment

#### Eye protection

Wear chemical goggles and full face shield appropriate for risk of exposure. Tightly fitting safety goggles.

#### Skin and body protection

Footwear and protective clothing should be selected according to the risk of exposure.

#### Respiratory protection:

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

#### Hand protection

Use chemical resistant gloves.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Ensure that eyewash stations and safety showers are close to the workstation location. Contaminated work clothing should not be allowed out of the workplace. Wash hands and face before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state:	Solid
Appearance:	Crystalline
Odor:	Odourless
Color:	Orange
Odor Threshold	No data available

<u>Property</u>	<u>Values</u>	<u>Remarks / • Method</u>
pH	4 (1% solution)	
Melting point/range:	674.6 °F / 357°C	
Freezing point:	No data available	
Boiling Point/Range	Not applicable	
Flash Point	Not applicable	
Evaporation rate	No data available	
Explosion limits:	No data available	
Vapor pressure	No data available	
Vapor density	No data available	
Density:	No data available	
Water solubility	Water Soluble (73% @ 20 °C)	
Solubility in other solvents	No data available	
Partition coefficient: n-octanol/water	No data available	
Autoignition temperature	No data available	
Decomposition temperature	752°F / 400°C	
Viscosity:	No data available	

**Explosive properties:** Not explosive  
**Oxidizing Properties** May intensify fire; oxidizer

**Other Information**

**Molecular weight:** 298  
**Percent Volatile:** Not applicable  
**Bulk Density** 70 - 80 lb/ft<sup>3</sup>

**10. STABILITY AND REACTIVITY**

**Reactivity**

Oxidizer. Contact with other material may cause fire

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

See reactivity above

**Conditions to Avoid**

Heat, flames and sparks. Exposure to moisture

**Incompatible Materials:**

Reducing agents, Organic materials, Readily oxidizable materials

**Hazardous Decomposition Products**

No decomposition if stored normally; At high temperatures: Chromium oxides.

**11. TOXICOLOGICAL INFORMATION**

**Product Information**

Data obtained on this product or a similar product

**Information on likely routes of exposure**

**Inhalation:** Fatal if inhaled May cause irritation of respiratory tract  
**Eye contact:** Causes burns Risk of serious damage to eyes  
**Skin contact:** Harmful in contact with skin Causes severe burns  
**Ingestion** Toxic if swallowed May cause burns to mouth throat and stomach

**Component Information**

Components	LD50/Oral	LD50/Dermal	LC50/inhalation
Sodium Dichromate, Dihydrate 7789-12-0	50 mg/kg (rat)	1000 mg/kg (rabbit)	0.124 mg/L 4hrs (rat)

**Information on Toxicological Effects**

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Corrosivity** Causes severe burns Risk of serious damage to eyes  
**Sensitization** May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause sensitization by skin contact  
**Mutagenic effects** May cause genetic defects

**Carcinogenic effects:** The table below indicates whether each agency has listed any ingredient as a carcinogen

Components	ACGIH	IARC	NTP	OSHA
Sodium Dichromate, Dihydrate 7789-12-0		Group 1 - Carcinogen to human	Known Carcinogen	Cancer hazard

**Reproductive Toxicity:** May impair fertility May cause harm to the unborn child

**Developmental Toxicity** May cause harm to the unborn child

### Chronic Toxicity

**Chronic toxicity:** May cause damage to organs through prolonged or repeated exposure

**Target Organ Effects:** Eyes, Skin, Liver, Respiratory system, Central nervous system (CNS), Reproductive system.

**Other Adverse Effects:** No data available

## 12. ECOLOGICAL INFORMATION

**Product Information** See below

### Ecotoxicity

Very toxic to aquatic life with long lasting effects

Components	LC50	EC50	Bioaccumulation Concentration Factor	No Observable Effect Concentration/96hr/48hr/24hr (NOEC)
Sodium Dichromate, Dihydrate	33.2 mg/L (Pimephales promelas; 96hrs)	0.035 mg/L (Daphnia magna; 48hrs)		

### Persistence and degradability:

Hexavalent chromium may react with particulate matter or pollutants to form Cr (III). In general, Chromium is removed from the atmosphere through wet and dry deposition.

### Bioaccumulative potential:

Does not bioaccumulate

### Mobility:

No data available

### General Note:

Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Waste from residues /unused products** Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with federal, state and local regulations.

**Contaminated packaging** Should be disposed of in accordance with Local and National regulations

### RCRA Hazardous Waste:

RCRA: Characteristic Waste - D007 (Chromium)

## 14. TRANSPORT INFORMATION

### U.S. Department of Transportation Ground (49 CFR):

UN-No: 3288  
 Proper shipping name: TOXIC SOLID, INORGANIC, N.O.S. (SODIUM DICHROMATE)  
 Hazard Class: 6.1  
 Hazard Labels: 6.1  
 Packaging group: III  
 Reportable Quantity (RQ) 10  
 Marine pollutant: YES

### International Air Transport Association (IATA)

UN-No: 3288  
 Proper shipping name: TOXIC SOLID, INORGANIC, N.O.S. (SODIUM DICHROMATE)  
 Hazard Class: 6.1  
 Hazard Labels: 6.1  
 Packing group: III

### International Maritime Dangerous Goods (IMDG)

UN-No 3288  
 Proper Shipping Name TOXIC SOLID, INORGANIC, N.O.S. (SODIUM DICHROMATE)  
 Hazard Class 6.1  
 Hazard Labels: 6.1  
 Packing Group III  
 EmS: F-A, S-Q  
 IMDG - Marine Pollutants : Yes

### Surface Shipments in Europe (ADR/RID):

UN-No: 3288  
 Proper shipping name: TOXIC SOLID, INORGANIC, N.O.S. (SODIUM DICHROMATE)  
 Packing group: III  
 Hazard Labels: 6.1  
 Environmental hazard mark: YES

## 15. REGULATORY INFORMATION

### International Inventories

USA (TSCA): Complies  
 EU (EINECS): Complies  
 CANADA (DSL) Complies  
 JAPAN (ENCS): Complies  
 PHILIPPINES (PICCS): Complies  
 KOREA (KECL): Complies  
 China (IECSC) Complies  
 AUSTRALIA (AICS): Complies  
 NEW ZEALAND (NZIoC): Complies  
 TAIWAN (NECI): Complies

### Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
 ENCS - Japan Existing and New Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 AICS - Australian Inventory of Chemical Substances



**NZIoC** - New Zealand Inventory of Chemicals  
**NECI** - Taiwan National Existing Chemical Inventory

### Federal Regulations

OSHA 29 CFR 1910.1026 Hexavalent Chromium

### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Components	EPCRA (SARA Title III) Section 313 Toxic Chemical
Sodium Dichromate, Dihydrate 7789-12-0	Chromium compound; N090

### SARA 311/312 Hazard Categories

Reactive Hazard  
 Acute Health Hazard  
 Chronic Health Hazard

### CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Components	U.S. - CWA (Clean Water Act) - Reportable Quantities of Designated Hazardous Substances	Toxic Pollutants	Priority Pollutants	Hazardous Substances
Sodium Dichromate, Dihydrate 7789-12-0	Chromium compounds - 10 lbs	Present (Chrome compounds)	Present (Chrome compounds)	Present (Chrome compounds)

### Clean Air Act:

Components	Hazardous Air Pollutants
Sodium Dichromate, Dihydrate	Present (Chrome compounds)

### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Components	CERCLA/SARA - Hazardous Substances and	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium Dichromate, Dihydrate 7789-12-0	Chrome compounds - 10 lbs		

### TSCA Section 12(b) Export Notification

This product does not contain chemicals that are required to be notified under the TSCA 12(b) Export Notification.

Components	TSCA Section 12(b) Export Notification
Sodium Dichromate, Dihydrate (CAS # 7789-12-0)	Section 6 0.1% only those that can be used to treat water cooling systems

### State Regulations (RTK)

#### California Proposition 65

This Product contains the following substance (s) known to the state of California to cause cancer and/or developmental effects.  
 Chromium (hexavalent compounds)

**16. OTHER INFORMATION****HMIS: ®**

**Health:** 3 \*  
**Flammability:** 0  
**Physical Hazard:** 1

**Previous Revision Date:** 26-Sep-2014

**Key/Legend:** N/A: Not applicable  
N/D: Not determined  
ppm: Parts per million  
X: Listed

**Prepared by** Product Stewardship

A component has been added to the formulation. SEE SECTION 2.

The information provided in this Safety Data Sheet is correct to the best of ELEMENTIS' knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. The information relates only to the specific product designated and may not be valid for such product when used in combination with any other material or in any process, unless specified in this SDS. ELEMENTIS specifically disclaims any liability for any loss, injury or damage which may result from use or misuse of this product. All chemicals should be handled only by competent personnel, within a controlled environment. It is the buyer's/user's responsibility to ensure that his activities comply with all applicable federal, state, provincial and local laws, and to determine the conditions necessary for the safe use of this product. ELEMENTIS urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product.

**End of Safety Data Sheet**