

## 1. Identification

<b>Product identifier</b>	<b>SODIUM DICHROMATE, DIHYDRATE, REAGENT (ACS)</b>	
<b>Other means of identification</b>		
<b>Product code</b>	801	
<b>Recommended use</b>	professional, scientific and technical activities: other professional, scientific and technical activities	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Company name</b>	GFS Chemicals, Inc.	
<b>Address</b>	P.O. Box 245 Powell OH 43065 US	
<b>Telephone</b>	Phone	740-881-5501
	Toll Free	800-858-9682
	Fax	740-881-5989
<b>Website</b>	www.gfschemicals.com	
<b>E-mail</b>	service@gfschemicals.com	
<b>Emergency phone number</b>	Emergency Assistance	Chemtrec 800-424-9300

## 2. Hazard(s) identification

<b>Physical hazards</b>	Oxidizing solids	Category 2
<b>Health hazards</b>	Acute toxicity, oral	Category 2
	Acute toxicity, dermal	Category 3
	Acute toxicity, inhalation	Category 2
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Germ cell mutagenicity	Category 1
	Carcinogenicity	Category 1
	Reproductive toxicity	Category 1
	Specific target organ toxicity, single exposure	Category 1 (kidney, liver)
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, repeated exposure	Category 1
<b>OSHA hazard(s)</b>	Not classified.	

### Label elements



**Signal word** Danger

**Hazard statement** May intensify fire; oxidizer. Fatal if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Causes damage to organs (kidney, liver). Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

## Precautionary statement

### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat. Use only outdoors or in a well-ventilated area. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Do not breathe dust/fume. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

### Response

If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. In case of fire: Use water for extinction.

### Storage

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

### Disposal

Dispose of contents/container to an approved waste disposal plant.

### Hazard(s) not otherwise classified (HNOC)

Not classified.

### Environmental hazards

Hazardous to the aquatic environment, acute hazard Category 1

Hazardous to the aquatic environment, long-term hazard Category 1

## Supplemental information

### Precautionary statement

#### Prevention

Avoid release to the environment.

#### Response

Collect spillage.

#### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

## 3. Composition/information on ingredients

### Substances

#### Hazardous components

Chemical name	Common name and synonyms	CAS number	%
SODIUM DICHROMATE, DIHYDRATE		7789-12-0	100

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

### Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

### Skin contact

Take off immediately all contaminated clothing. Wash off with soap and plenty of water. Call a physician or poison control center immediately. Call a POISON CENTER or doctor/physician if you feel unwell. For minor skin contact, avoid spreading material on unaffected skin. If skin irritation or rash occurs: Get medical advice/attention.

### Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately. Get medical attention if irritation develops and persists.

### Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

### Most important symptoms/effects, acute and delayed

Corrosive effects. Irritation of eyes and mucous membranes. May cause temporary blindness and severe eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause allergic skin reaction. Edema. Liver enlargement. Jaundice. Proteinuria. May cause allergic respiratory reaction. Prolonged exposure may cause chronic effects.

### Indication of immediate medical attention and special treatment needed

In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed. Provide general supportive measures and treat symptomatically.

**General information** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

## 5. Fire-fighting measures

**Suitable extinguishing media** Water. Water spray.

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical** May intensify fire; oxidizer.

**Special protective equipment and precautions for firefighters** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**Fire-fighting equipment/instructions** Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Water runoff can cause environmental damage.

**Specific methods** Cool containers exposed to flames with water until well after the fire is out.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Immediately evacuate personnel to safe areas. Local authorities should be advised if significant spillages cannot be contained. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Wear appropriate personal protective equipment.

**Methods and materials for containment and cleaning up** ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Stop the flow of material, if this is without risk. Collect spillage. Following product recovery, flush area with water. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. For waste disposal, see section 13 of the MSDS.

**Environmental precautions** Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

## 7. Handling and storage

**Precautions for safe handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take any precaution to avoid mixing with combustibles. Keep away from heat. Minimize dust generation and accumulation. Do not breathe dust. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid contact during pregnancy/while nursing. Do not get this material on clothing. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

**Conditions for safe storage, including any incompatibilities** Store locked up. Keep away from heat. Store in a well-ventilated place. Keep container tightly closed. Do not store near combustible materials. Keep out of the reach of children. Store in a cool, dry place out of direct sunlight.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Material	Type	Value
SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)	TWA	0.005 mg/m <sup>3</sup>

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value
SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)	PEL	1 mg/m <sup>3</sup>

#### US. OSHA Table Z-2 (29 CFR 1910.1000)

Material	Type	Value
SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)	Ceiling	0.1 mg/m <sup>3</sup>

## Biological limit values

### US. ACGIH. BEIs. Biological Exposure Indices

Material	Value	Determinant	Specimen	Sampling Time
SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)	25 µg/l	Total chromium	Urine	*
	10 µg/l	Total chromium	Urine	*

\* - For sampling details, please see the source document.

### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

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

**Eye/face protection** Wear eye/face protection.

#### Skin protection

**Hand protection** Wear protective gloves.

#### Other

Wear appropriate chemical resistant clothing. It may provide little or no thermal protection. Wear protective gloves.

**Respiratory protection** Respirator must be worn if exposed to dust.

**Thermal hazards** Not available.

### General hygiene considerations

When using, do not eat, drink or smoke. Do not get in eyes. Do not get this material in contact with skin. Do not get this material on clothing. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

<b>Appearance</b>	Crystalline.
<b>Physical state</b>	Solid.
<b>Form</b>	Solid.
<b>Color</b>	Dark orange.
<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not available.
<b>pH</b>	3.5 - 4 Solutions are acidic
<b>Melting point/freezing point</b>	212 °F (100 °C) Loses water
<b>Initial boiling point and boiling range</b>	752 °F (400 °C)
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Very soluble.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	752 °F (400 °C)
<b>Viscosity</b>	Not available.

Material name: SODIUM DICHROMATE, DIHYDRATE, REAGENT (ACS)

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Version #: 01

Revision date: Issue date: March-13-2014

SDS US

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## Other information

Density	2.52 g/cm <sup>3</sup>
Molecular formula	Na <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> ·2H <sub>2</sub> O
Molecular weight	298.01 g/mol
Specific gravity	2.5203

## 10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Risk of ignition. Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat.
Incompatible materials	Combustible material.
Hazardous decomposition products	Chromium oxides

## 11. Toxicological information

### Information on likely routes of exposure

Ingestion	Fatal if swallowed. Causes digestive tract burns.
Inhalation	Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	Toxic in contact with skin. Causes severe skin burns. May cause an allergic skin reaction.
Eye contact	Causes severe eye burns. Causes serious eye damage.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Permanent eye damage including blindness could result. Edema. Liver enlargement. Jaundice. Proteinuria.

### Information on toxicological effects

Acute toxicity	Fatal if swallowed. Fatal if inhaled. Causes severe skin burns and eye damage. Toxic in contact with skin.
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Product	Species	Test Results
SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	1000 mg/kg
<i>Inhalation</i>		
LC50	Rat	0.1244 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	51.1 mg/kg

\* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes severe eye burns. Causes serious eye damage.
Respiratory sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	May cause genetic defects.
Carcinogenicity	Cancer hazard.

### IARC Monographs. Overall Evaluation of Carcinogenicity

SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0) 1 Carcinogenic to humans.

### NTP Report on Carcinogens

SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)

### US OSHA Hazard Categories (1)

SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0) Cancer

Reproductive toxicity	May damage fertility or the unborn child.
Specific target organ toxicity - single exposure	Respiratory tract irritation. Causes damage to organs (kidney, liver).

<b>Specific target organ toxicity - repeated exposure</b>	Causes damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	Due to lack of data the classification is not possible.
<b>Chronic effects</b>	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. Causes damage to organs through prolonged or repeated exposure.

## 12. Ecological information

**Ecotoxicity** Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Product	Species	Test Results
SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia magna) 0.098 - 0.129 mg/l, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis) 10 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** Not available.

**Mobility in soil** Not available.

**Other adverse effects** Not available.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Not available.

**Hazardous waste code** D001: Waste Flammable material with a flash point <140 F  
D007: Waste Chromium

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

<b>UN number</b>	UN3288
<b>UN proper shipping name</b>	Toxic solid, inorganic, n.o.s. (SODIUM DICHROMATE), MARINE POLLUTANT
<b>Transport hazard class(es)</b>	6.1(PGIII)
<b>Subsidiary class(es)</b>	Not available.
<b>Packing group</b>	III
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Labels required</b>	6.1
<b>Special provisions</b>	IB8, IP3, T1, TP33
<b>Packaging exceptions</b>	153
<b>Packaging non bulk</b>	213
<b>Packaging bulk</b>	240

### IATA

<b>UN number</b>	UN3288
<b>UN proper shipping name</b>	Toxic solid, inorganic, n.o.s. (SODIUM DICHROMATE)
<b>Transport hazard class(es)</b>	6.1(PGIII)
<b>Subsidiary class(es)</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	No
<b>Labels required</b>	Not available.
<b>ERG Code</b>	6L
<b>Special precautions for user</b>	Not available.

## IMDG

<b>UN number</b>	UN3288
<b>UN proper shipping name</b>	TOXIC SOLID, INORGANIC, N.O.S. (SODIUM DICHROMATE), MARINE POLLUTANT
<b>Transport hazard class(es)</b>	6.1(PGIII)
<b>Subsidiary class(es)</b>	-
<b>Packaging group</b>	III
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>Labels required</b>	Not available.
<b>EmS</b>	F-A, S-A
<b>Special precautions for user</b>	Not available.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** No information available.

**General information** DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

## DOT



## IATA; IMDG



## Marine pollutant



## 15. Regulatory information

**US federal regulations** All components are on the U.S. EPA TSCA Inventory List.

### **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0) 0.1 % Annual Export Notification required.

### **US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not on regulatory list.

### **CERCLA Hazardous Substance List (40 CFR 302.4)**

SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0) LISTED

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

## Other federal regulations

### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)

### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)**  
Hazardous substance  
Priority pollutant  
Toxic pollutant

**Safe Drinking Water Act (SDWA)**  
0.1 mg/l  
0.1 mg/l

### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

### DEA Exempt Chemical Mixtures Code Number

Not regulated.

**Food and Drug Administration (FDA)**  
Not regulated.

## US state regulations

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

### US. Massachusetts RTK - Substance List

SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)

### US. New Jersey Worker and Community Right-to-Know Act

SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0) 500 lbs

### US. Pennsylvania RTK - Hazardous Substances

SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)

### US. Rhode Island RTK

SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)

### US. California Proposition 65

#### US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

SODIUM DICHROMATE, DIHYDRATE (CAS 7789-12-0)

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)



## 16. Other information, including date of preparation or last revision

**Issue date** March-13-2014

**Version #** 01

**Further information** Not available.

**Disclaimer** The information in the sheet was written based on the best knowledge and experience currently available. The information given is designed only as a 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 material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision Information** Product and Company Identification: Physical States  
Hazards Identification: Shared US and Canadian Categories  
Physical & Chemical Properties: Multiple Properties  
Transport Information: Proper Shipping Name/Packing Group