

MSDS CODE: SC1
 Date Revised: 09/29/2009
 Prepared By: Kartik Patel

Reason for Revision: See Section 16

1. CHEMICAL, PRODUCT AND COMPANY IDENTIFICATION:

Product Code(s): **J1365**
 Product Name: Strontium Chromate
 Chemical Family: Inorganic Metal Oxide
 Synonyms: Chromate Compound
 C.A.S. Number: 7789-06-2
 Color Index Name: Yellow 32
 Color Index Number: 77839

Supplier's Name/Address:

Rockwood Pigments/Davis Colors, 7011 Muirkirk Road, Beltsville, Maryland, USA 20705
 Business Tel: (301) 210-7800 9a-5p (0900-1700) EST M-F
 Rockwood Pigments/Davis Colors, 3700 East Olympic Boulevard, Los Angeles, California, USA 90023
 Business Tel: (323) 269-7311 9am-5pm (0900-1700) PST M-F

24 Hour Emergency (Chemtrec): 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

OSHA Hazardous Ingredients (29CFR1910.1200):		Exposure Limits (8 Hrs.TWA)	
Components:	C.A.S.	%	OSHA PEL ACGIH TLV
Strontium Chromate (as Cr+6)	7789-06-2	(96-99)	Not established 0.0005 mg/m ³
(as Cr) (29CFR 1910.1000 Table Z-2)			
Chromic Acid & Chromate (as Cr+6)	13530-68-2		0.005 mg/m ³ Not established.
Note: OSHA issued final standard on	Strontium Chromate is considered to be a hazardous chemical under 29		
Hexavalent Chromium on Feb 28,	CFR 1910.1200. Strontium Chromate is not specifically listed under		
2006. Effective date is May	OSHA 29 CFR 1910.1000 air contaminants, therefore the listing for		
29,2006. Refer to OSHA News	Chromic Acid and Chromate is used.		
Release: 06-342-NAT.			

Non-Hazardous Ingredients:		Exposure Limits (8 Hrs.TWA)	
Components:	C.A.S.	%	OSHA PEL ACGIH TLV
-None-			

3. HAZARDS IDENTIFICATION

***** EMERGENCY OVERVIEW *****

Odorless, dry yellow powder. Warning! Environmental Hazard. Toxic to aquatic and terrestrial organisms. Do not allow entry into sewers and waterways. Danger! Toxic. Contains material which may cause cancer. Target organs: Respiratory Tract, Skin, Eyes, Nasal Septum, Gastrointestinal tract, Kidneys, and Liver. Does not burn or react.

HMIS Codes: H=2, F=0, R=0 (0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe)

Potential Health Effects:

Eyes: Contact may cause eye irritation. Excessive exposure can cause burns and potential permanent damage.

Skin: Prolonged exposure may cause skin irritation (irritative dermatitis and allergic eczematous dermatitis) The hexavalent chromium content is particularly active. Contact with broken skin may lead to formation of "Chrome sores".

Ingestion: Toxic and may be harmful if swallowed; may produce liver or kidney damage. Can cause tissue destruction, hemorrhage changes in the gastrointestinal tract, bleeding, and pathological lesions in the kidneys.

Inhalation: Suspect cancer hazard-Risk of cancer depends on duration and level of exposure. Long-term exposure to Cr (VI) compounds may give rise to a corrosive reaction in the nasal septum leading to perforation. Bronchial asthma may occur as a result of chromate dust inhalation.

Human Effects and symptoms of overexposure:

MSDS CODE: SC1
Date Revised: 09/29/2009
Prepared By: Kartik Patel

Reason for Revision: See Section 16

Acute: Irritating to eyes and skin. Dermal and mucous membrane irritation.
Chronic: Epidemiological studies indicate that long-term exposure to high levels of dust and mist in the chromate product industries is associated with increased levels of respiratory tract cancer in humans although the causative agent is not known. Prolonged inhalation may cause Jaundice, liver or kidney damage, and ulcers of the mucous membrane or perforation of cartilage in nasal septum (Reference NTP 1985 edition). Hexavalent chrome is carcinogenic.

Other Effects: None known

Medical Conditions: None known
Aggravated by:
Exposure:
Carcinogenicity: IARC: Yes - Human Carcinogen Group 1 NTP: Yes - Human Carcinogen OSHA: Yes

Other: Chromium and certain forms of Chromium compound are listed carcinogens by NTP, IARC, and ACGIH.

4. FIRST AID MEASURES

Eyes: Remove contact lenses if present. Immediately flush eyes with plenty of water for at least 15 minutes, lifting lids periodically. Get medical attention if irritation persists.

Skin: Wash with soap and water. Wash clothing before re-use. Get medical attention if irritation develops or persists.

Ingestion: If swallowed, do not induce vomiting. Give large quantities of water (If available give several glasses of milk). Never give anything by mouth to an unconscious person. Get medical attention immediately.

Inhalation: If exposed to excessive levels of dust or fumes, move from dusty area to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If conscious, irrigate nasal passages and mouth with water. Get immediate medical attention. Observe for 72 hours for delayed onset of pulmonary edema.

Note to Physician: Treat for Hexavalent Chromium Cr (VI) exposure.

5. FIRE FIGHTING MEASURES

Flammable Properties: Not Flammable.
Flash Point: Will not flash.
Upper Explosive Limit (UEL): Will not explode.
Lower Explosive Limit (LEL): Will not explode.
Auto-ignition Temperature: Will not auto ignite.
Extinguishing Media: This product is not combustible or flammable. Use extinguishing agents that are suitable for the surrounding fire: water spray, dry chemical, foam, or CO₂.

Fire fighting Instructions: Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes and smoke inhalation.

6. ACCIDENTAL RELEASE MEASURES

Small Spill: If dust is generated, use appropriate respiratory protection. Vacuum or scoop material into an appropriately marked container for re-use or disposal. Avoid excessive generation of dust.

Large Spill: Use recommended protective clothing and respiratory protection. Use shovel to reclaim material. Vacuum or scoop material into an appropriately marked container for re-use or disposal. Avoid excessive generation of dust. Prevent from entering storm sewers and ditches that lead to natural waterways. Spills or releases should be reported to environmental regulatory authorities.

7. HANDLING AND STORAGE

Storage: Store dry at ambient temperature away from food and beverages. Do not store near Strong oxidizing agents., excessive heat, or flame sources (furnace, kilns, boilers, etc.). Avoid breathing dust. Avoid contact with eyes and skin. Wash thoroughly after handling. For Industrial use only.

Handling: Avoid breathing dust. Avoid getting in eyes or on skin. Wash thoroughly after handling. Avoid contact with moisture. Re-seal bag immediately after use. For Industrial use only. Pallets are

MSDS CODE: SC1
 Date Revised: 09/29/2009
 Prepared By: Kartik Patel

Reason for Revision: See Section 16

wrapped in polyethylene plastic. Removal may cause an electrostatic spark; therefore removal of the wrap should not be in the presence of flammable vapors.

Storage Temperature (Min/Max) : Ambient/Ambient
 Shelf Life : Unlimited in closed container
 Special Sensitivity : Keep away from Strong oxidizing agents. and sources of heat.
 Other Precautions : None

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Maintain air levels below the recommended exposure limit using closed dust collection systems if necessary. Refer to OSHA Issues Final Standard on Hexavalent Chromium.
 Eyes: Safety Glasses.
 Skin: Body-covering clothing. Rubber, Plastic, Leather or cloth gloves are suggested to facilitate personal hygiene.
 Respiratory Protection: Workplace ambient dust concentrations should be monitored and if the recommended exposure limit is exceeded, a NIOSH/MSHA respirator approved for dust or mist with dust prefilter should be worn. Follow new recommended limits.
 Other: Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of hazardous chemicals. Follow new regulations.
 Work/Hygiene Practices: Employees should wash their hands and face before eating, drinking or using tobacco products. Refer to new regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Solid Yellow Powder
 Odor : Odorless
 Physical State : Dry Powder
 pH : 6 - 8 in 50 gr/l H₂O aqueous suspension; DIN 787/9
 Vapor Pressure : Not a vapor
 Vapor Density : Not a vapor
 Boiling Point : Not applicable
 Freezing Point : Not applicable
 Melting Point : Greater than 500°C (930°F)
 Solubility in Water : 0.5 gr/l CrO₃
 Specific Gravity (g/ml) : 3.85 - 4.0 @ 20°C (68°F); DIN 787/10
 Bulk Density (g/ml) : 0.9 to 1.2 @ 20°C (68°F)
 Particle Size : Not available
 Volatile Organic Compounds (VOC) : None
 Chemical Formula : SrCrO₄

10. STABILITY AND REACTIVITY

Chemical Stability (Conditions to Avoid): Stable
 Incompatibility (materials to avoid): Soluble in acids, concentrated ammonium hydroxide. Strong oxidizing agents., organic materials, oils, greases or any easily oxidizable material.
 Decomposition Temperature C° (F°): Decomposes with heating.
 Hazardous Decomposition Products: None
 Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Eyes: Data not established for product.
 Skin: Data not established for product.
 Ingestion: Data not established for product.

MSDS CODE: SC1
 Date Revised: 09/29/2009
 Prepared By: Kartik Patel

Reason for Revision: See Section 16

Inhalation: Data not established for product.
 Subchronic: Data not established for product.
 Chronic/Carcinogenicity: This product is considered carcinogenic for long-term exposure. See section 3.
 Other (Mutagenic, Teratogenic, Reproductive Tests): Strontium ion has a low order of toxicity, however as with other compounds, the toxicity may be a function of the anion.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: Fish toxicity: Moderate to high toxicity.
 Chemical Fate Information: Chromium is subject to bioaccumulation in aquatic and terrestrial plants and animals.

13. DISPOSAL CONSIDERATIONS

Material which cannot be re-used should be disposed in accordance with federal, state and local environmental control regulations at an authorized site by a certified contractor. This product when discarded as sold meets the criteria of EP Toxicity, and should be managed as a hazardous waste. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40CFR 261.20-24). Contains chromium.

14. TRANSPORT INFORMATION

DOT Shipping Name..... : Environmentally Hazardous Substances, Solid, n.o.s. (Strontium Chromate) 9,UN3077, PG III RQ10
 Technical Shipping Name..... : Strontium Chromate
 DOT Hazard Class..... : 9
 UN/NA Number..... : UN 3077
 Product Reportable Quantity (RQ) : 10 lbs.
 DOT Label : Class 9
 DOT Placard : Class 9
 Freight Class Package : Bags
 Product Label..... : J1365 Strontium Chromate, Environmentally Hazardous Substance, Solid, n.o.s., Strontium Chromate, UN3077, RQ10.

15. REGULATORY INFORMATION

***** U.S. Federal Regulations *****

OSHA: This product is considered Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). This product is considered to be a carcinogen. Chromic acid and Chromates are listed hazardous air contaminants.
 CERCLA/SUPERFUND: (40 CFR 117,302) Reportable Quantity (RQ): Not established for this product. We recommend the 10 lb (4.54 kg) limit for Chrome be used.

Superfund Amendments and Reauthorization Act (SARA), Title III:
 Section 302 (Extremely Hazardous Substances): None
 Section 311/312 (Hazard Categories): Immediate (acute) health hazard, Delayed (chronic) health hazard

Section 313 (Reportable Toxic Ingredients):
 Chemical Name: Chromium C.A.S. 7440-47-3 Concentration 24-25%
 All Chromium compounds are subject to the reporting requirements of section 311, 312 and 313. It is not listed in appendix A and B, 40 CFR 355 as an extremely hazardous substance.

MATERIAL SAFETY DATA SHEET

MSDS CODE: SC1
Date Revised: 09/29/2009
Prepared By: Kartik Patel

Reason for Revision: See Section 16

T.S.C.A.: This product is listed on TSCA Inventory. This product requires 12(b) notification to the EPA if exported outside the United States (Rule/Action Reference: 54FR222 1/3/90 40CFR749 Final Rule Section 6) Strontium Chromate CAS 7789-06-2

***** International Regulations *****

Canadian WHMIS: Strontium Chromate 7789-06-2 Content: Above 96%
Canadian Environmental Protection Act (CEPA): All components of this product are on the Domestic Substances List (DSL), and acceptable for use under the provisions of CEPA.
EINECS: All components of this product are on the European Inventory of Existing Commercial Chemical Substances (EINECS).

***** State Regulations *****

The following chemicals are specifically listed by individual states; other product specific health and safety data, in other sections of this MSDS, may also be applicable for state requirements. This list is not intended to be comprehensive of all applicable state requirements. For details on the regulatory requirements in your state, contact the appropriate agency.

California Proposition 65 Warning: This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

- CA = California Safe Drinking Water and Toxic Enforce Act (Proposition 65)
- MA = Massachusetts Hazardous Substance List
- NJ4 = New Jersey Other- included in 5 predominant ingredients >1%
- PA3 = Pennsylvania Non-hazardous present at 3% or greater; and special hazardous substances present at 0.01% or greater.

Chemical Name:	C.A.S.	Concentration	State Code
Strontium Chromate	7789-06-2	Above 96%	CA,MA,NJ4,PA3
Lead	7439-92-1	<50 ppm	CA,MA
Cadmium	7440-43-9	<25 ppm	CA,MA
Arsenic	7440-38-2	<5 ppm	CA,MA
Copper	7440-50-8	<20 ppm	MA

Note: This information based on random sample analyses. Actual content may vary from batch to batch.

16. OTHER INFORMATION

- Reason for revision:
- 1/11/2006 - Removed Calif Prop 65 listing for Copper and Manganese in section 15.
 - 3/09/2006 - OSHA Issues Final Standard on Hexavalent Chromium dated Feb 28, 2006. Cr+6 limits lowered from 0.052 mg to 0.005 mg/m³ Removed P value from HMIS Codes. Removed listing for Manganese in section 15. Revised exposure/engineering controls text in section 8.
 - 9/29/2009 - Added (Strontium Chromate) 9,UN3077, PG III RQ10 to DOT shipping name in section 14.

HMIS Codes: H=2, F=0, R=0 (0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe)

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of the Manufacturer. The data on this sheet relates only to the specific material designated herein. It may not be valid for this material if used in combination with any other materials or process. It is the user's responsibility to verify suitability and completeness of this information for their own particular use. The Manufacturer assumes no legal responsibility for use or reliance upon these data.