



SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):	CHROMIC ACID FLAKE
SYNONYMS:	Chromium(VI)oxide(1:3);chromic acid, solid; chromic anhydride
CAS#:	1333-82-0
PRODUCT USE:	Various uses
CHEMICAL SHIPPING NAME/CLASS:	Chromium trioxide, anhydrous; Class 5.1, 6.1, 8
U.N. NUMBER:	UN1463
MANUFACTURER'S NAME:	Various Manufacturers
DISTRIBUTOR'S NAME:	Hunter Chemical LLC
ADDRESS:	220 Commerce Drive, Suite 405, Fort Washington, PA 19034
EMERGENCY PHONE:	(800) 424-9300 (CHEMTREC)
BUSINESS PHONE:	(215) 461-1900
DATE OF PREPARATION:	October 14, 2010
DATE OF REVISION:	May 28, 2015
DATE OF REVIEW:	May 28, 2015

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

Product Description: This product is a dark-red/orange brown solid crystalline solid with no odor.
Health Hazards: Harmful if swallowed or inhaled. Causes irritation to skin, eyes and respiratory tract. May cause nasal or lung damage. May cause allergic skin or respiratory reaction. Cancer hazard. Can cause cancer. Risk of cancer depends on duration and level of exposure.
Flammability Hazards: Non-Flammable product.
Reactivity Hazards: This product is reactive.
Environmental Hazards: Release of the product may cause adverse effects to the aquatic environment.
Emergency Recommendations: Emergency responders must have personal protective equipment and fire protection appropriate for the situation to which they are responding.

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE: This product meets the definition of a hazardous substance or preparation according to EU Regulations (EC) No 1272/2008.

EC# 215-607-8 Annex I Index# 024-001-00-0

COMPONENT(S) DETERMINING HAZARD:

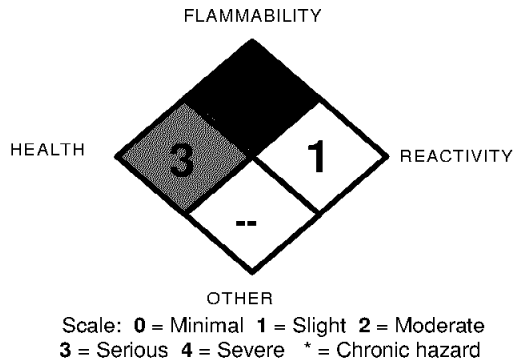
Chromium trioxide

GHS CLASSIFICATIONS:

- Oxidizing Solids Category 1
- Carcinogen Category 1A
- Mutagenicity Category 1B
- Reproductive Toxicity Category 2
- Acute Inhalation Toxicity Category 2
- Acute Dermal Toxicity Category 3
- Acute Oral Toxicity Category 3
- Specific Target Organ Toxicity Category 1
- Skin Corrosion Category 1A
- Respiratory Sensitization Category 1
- Skin Sensitization Category 1

- Aquatic Acute Toxicity Category 1
- Aquatic Long Term Toxicity Category 1
- Chronic Toxicity Category 1

SIGNAL WORD: DANGER





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HAZARD STATEMENT:

- H271 May cause fire or explosion; strong oxidizer
- H350 May cause cancer
- H340 May cause genetic defects
- H361 Suspected of damaging fertility or the unborn child
- H330 Fatal if inhaled
- H311 Toxic in contact with skin
- H301 Toxic if swallowed
- H372 Causes damage to to organs through prolonged or repeated exposure
- H314 Causes severe skin burns and eye damage
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H317 May cause an allergic skin reaction
- H400 Very toxic to aquatic life
- H410 Very toxic to aquatic life with long lasting effects

PREVENTION STATEMENT:

- P201 Obtain special instructions before use
- P202 Do not handle until all safety precautions have been read and understood
- P220 Store away from combustible materials
- P260 Do not breath dust/fume/gas/mist/vapor/spray
- P261 Avoid breathing dust/fume/gas/mist/vapor/spray
- P264 Wash hands thoroughly after handling
- P272 Contaminated work clothing should not be allowed out of the workplace
- P273 Avoid release to the environment
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P285 In case of inadequate ventilation wear respiratory protection

RESPONSE STATEMENT:

- P321 Specific treatment is advised – see first aid instructions
- P363 Wash contaminated clothing before reuse
- P302 +P352 IF ON SKIN: Wash with plenty of soap and water
- P308 + P313 IF exposed or concerned: Get medical advice/attention
- P333 + P313 IF skin irritation or rash occurs: Get medical advice/attention

HEALTH EFFECTS OR RISKS FROM EXPOSURE:

ACUTE: Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive). Slightly hazardous in case of skin contact (sensitizer). The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering

CHRONIC: Hazardous in case of skin contact (irritant), of eye contact (irritant). **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 kidneys, liver, gastrointestinal tract, upper respiratory tract, skin, eyes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.



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3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS#	EINECS #	Hazard Classification	Risk Phrases
Chromium Trioxide	100%	1333-82-0	215-607-8	[O] Oxidizer, Carc. Cat 1 Mut. Cat2, Repr.Cat 3 [T] Toxic [N] Dangerous for the environment	R45,R46,R9, R24/25, R26, R35, R42/43, R48/23, R62, R50/53
Balance of other ingredients is less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).					None

NOTE: ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard *JIS Z 7250: 2000*.

4. FIRST-AID MEASURES

SKIN EXPOSURE: If this product contaminates the skin, begin decontamination with running water. Minimum flushing is for 5 minutes. Remove exposed or contaminated clothing, taking care not to contaminate eyes. The contaminated individual should seek medical attention if any adverse effect occurs.

EYE EXPOSURE: If this product enters the eyes, open contaminated individual's eyes while under gently running water. Use sufficient force to open eyelids. Remove contact lenses if worn. Have contaminated individual "roll" eyes. Minimum flushing is for 15 minutes. Contaminated individual must seek immediate medical attention.

INHALATION: If dusts generated by this product are inhaled, remove contaminated individual to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention immediately.

INGESTION: Routine use of this product is not expected to cause any situation which could lead to ingestion. If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION.

If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Persons with pre-existing skin disorders, asthma, allergies or known sensitization to chromic acid or chromates may be more susceptible to the effects of this material.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not Applicable

AUTOIGNITION TEMPERATURE: Not Applicable

FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA

FIRE EXTINGUISHING MATERIALS: Use fire extinguishing methods below:

Water Spray: Yes

Carbon Dioxide: Yes

Foam: Yes

Dry Chemical: Yes

Halon: Yes

Other: Any "C" Class

UNUSUAL FIRE AND EXPLOSION HAZARDS: Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Will ignite on contact with acetic acid and alcohol. Releases oxygen upon decomposition, increasing the fire hazard. Contact with oxidizable substances may cause extremely violent combustion. Containers may explode when involved in a fire.

Explosion Sensitivity to Mechanical Impact: No

Explosion Sensitivity to Static Discharge: No

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied



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water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Proper protective equipment should be used. Stop the flow of material, if this can be done safely. Contain discharged material. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing dusts generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

STORAGE AND HANDLING PRACTICES: Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, ignition sources, moisture and incompatibilities. Do not store on wooden floors. Wear special protective equipment (Sec. 8) for maintenance break-in or where exposures may exceed established exposure levels. Wash hands, face, forearms and neck when exiting restricted areas. Shower, dispose of outer clothing, change to clean garments at the end of the day. Avoid cross-contamination of street clothes. Wash hands before eating and do not eat, drink, or smoke in workplace. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Chemical Name	CAS#	ACGIH TLV	OSHA TWA
Chromium Trioxide	1333-82-0	0.05 mg/m ³	0.1 mg/m ³

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below. Use a chemical fume hood or local exhaust ventilation, and process enclosure if necessary, to control airborne dust. Ensure eyewash/safety shower stations are available near areas where this product is used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or goggles are recommended. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

HAND PROTECTION: Use chemically-resistant gloves when handling this product. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protection appropriate for task (e.g. lab coat, overalls). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

9. PHYSICAL and CHEMICAL PROPERTIES



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APPEARANCE (Physical State) and COLOR: Solid red-purple flakes with no odor

ODOR: No odor

ODOR THRESHOLD: Not Applicable

pH: Not Available

MELTING/FREEZING POINT: 196°C (384.8°F)

BOILING POINT: Not Available

FLASH POINT: Not Applicable

EVAPORATION RATE (n-BuAc=1): Not Applicable

FLAMMABILITY (SOILD, GAS): Not Available

UPPER/LOWER FLAMMABILITY OR EXLOSION LIMITS: Not Available

VAPOR PRESSURE (mm Hg @ 20°C (68°F): Not Applicable

VAPOR DENSITY: Not Applicable

RELATIVE DENSITY: Not Available

SPECIFIC GRAVITY: 2.7

SOLUBILITY IN WATER: Negligible

PARTITION COEFFICENT (n-octanol/water): Not Available

AUTO-IGNITION TEMPERATURE: Not Applicable

DECOMPOSITION TEMPERATURE: Not Available

VISCOSITY: Not Applicable

10. STABILITY and REACTIVITY

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Burning may produce chrome oxides.

Hazardous Polymerization: Will not occur.

Incompatibilities: Any combustible, organic or other readily oxidizable material (paper, wood, sulfur, aluminum or plastics). Incompatible with arsenic, ammonia gas, hydrogen sulfide, phosphorus potassium; sodium and selenium will produce incandescence. Corrosive to metals.

Conditions to Avoid: Avoid excess heat and contact with combustible or organic materials.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:

Chromium Trioxide CAS# 1333-82-0

Oral rat LD50: 80 mg/kg

Investigated as a tumorigen, mutagen, reproductive effector.

SUSPECTED CANCER AGENT: Ingredients within this product are found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are considered to be, or suspected to be, cancer-causing agents by these agencies.

Cancer Lists

---NTP Carcinogen---

Ingredient	Known	Anticipated	IARC Category
Chromium (VI) Oxide (1:3) (1333-82-0)	Yes	No	1

IRRITANCY OF PRODUCT: This product can be irritating to the skin, eyes, and respiratory system with prolonged contact.

SENSITIZATION TO THE PRODUCT: This product may cause allergic skin reactions (e.g., rashes, welts).

REPRODUCTIVE TOXICITY INFORMATION: No reports concerning the effects of this product and its components on the human reproductive system.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL FATE:



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When released into the soil, this material may leach into groundwater. When released into water, this material is not expected to evaporate significantly. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.

ENVIRONMENTAL TOXICITY:

This material is expected to be toxic to aquatic life.

CHEMICAL EFFECT ON PLANTS, ANIMALS AND AQUATIC LIFE: This product is harmful to aquatic life in very low concentrations. This product will be toxic to fish and marine organisms when applied to streams, ponds, rivers or lakes.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows:

Proper Shipping Name: CHROMIUM TRIOXIDE, ANHYDROUS

Hazard Class: 5.1, 6.1,8

UN/NA: UN1463

Packing Group: II

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: 141

MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is considered as dangerous goods.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is considered by the United Nations Economic Commission for Europe to be dangerous goods.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.

OTHER U.S. FEDERAL REGULATIONS: None

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ingredients within this product are on the Proposition 65 Lists.

Warning! This product contains a chemical(s) known to the State of California to cause cancer.

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.

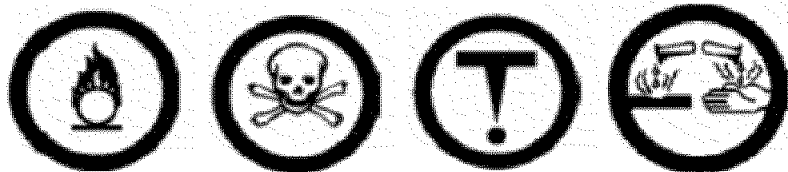
OTHER CANADIAN REGULATIONS: Not applicable.



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CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Class C Oxidizing Material; Class D1B Toxic Material; D2B Materials causing other toxic effects; Class E Corrosive Material



EUROPEAN ECONOMIC COMMUNITY INFORMATION:

EU LABELING AND CLASSIFICATION: This product meets the definition of the following hazard class as defined by the European Economic Community Guidelines.

EU CLASSIFICATION: [O] Oxidizer, Carc. Cat 1 Mut. Cat2, Repr. Cat 3 [T] Toxic [N] Dangerous for the environment

EU RISK PHRASES: R45: May cause cancer; R46: May cause heritable genetic damage; R9: Explosive when mixed with combustible material; R24/25: Toxic in contact with skin and if swallowed; R26: Very toxic by inhalation; R35: Causes severe burns; R42/43: May cause sensitization by skin contact; R48/23: Toxic: Danger of serious damage to health by prolonged exposure through inhalation; R62: Possible risk of impaired fertility; R50/53: Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

EU SAFETY PHRASES: S53: Avoid exposure-obtain instructions before use; S45: In case of accident or if you feel unwell, seek medical advice immediately; S60: This material and its container must be disposed of as hazardous waste; S61: Avoid release to the environment.



AUSTRALIAN INFORMATION FOR PRODUCT: The components of this product are listed on the International Chemical Inventory list.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

JAPANESE ENCS INVENTORY: The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW: No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac: Listed
Australian Inventory of Chemical Substances (AICS): Listed
Korean Existing Chemicals List (ECL): Listed
Japanese Existing National Inventory of Chemical Substances (ENCS): Listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed
Swiss Giftliste List of Toxic Substances: Listed
U.S. TSCA: Listed

16. OTHER INFORMATION

PREPARED BY: Paul Eigbrett – (SDS Authoring PLUS)

DATE OF PRINTING: May 28, 2015



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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Hunter Chemical LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are no adhered to as stipulated in the data sheet. Furthermore, Hunter Chemical LLC assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

END OF SDS SHEET