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Oxford
Range of
Laboratory Chemicals

MATERIAL SAFETY DATA SHEET

CHROMIUM OXIDE GREEN

(Chromium (III) Oxide Green)

Extra Pure

MSDS CAS: 1308-38-9

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name: CHROMIUM OXIDE GREEN

CAS#: 1308-38-9

Synonym: Chromium Oxide greens; Chromium Oxide Green Powder; Chromium Sesquioxide; Green Chromium (III) Oxide powder; C.I. Pigment Gren 17; C.I. Number 77288; Dichromium trioxide

Chemical Name: Chromium Oxide Green

Chemical Formula: Cr_2O_3

Brand : OXFORD

Details Of The Supplier Of The Safety Data Sheet :

Company identification: **OXFORD LAB FINE CHEM LLP**
Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,
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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Chromium Oxide Green	1308-38-9	100

Section 2: Composition and Information on Ingredients (Continued)

Toxicological Data on Ingredients: **Chromium oxide Green LD50: Not available. LC50: Not available.**

Section 3: Hazards Identification

Potential Acute Health Effects:
Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:
Hazardous in case of inhalation. Slightly hazardous in case of skin contact (sensitizer). CARCINOGENIC EFFECTS: A4 (Not classifiable for human) by ACGIH, 3 (Not classifiable 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 upper respiratory tract, skin. Repeated or prolonged exposure to the substance can produce target organs damage.

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. Get medical attention.

Skin Contact:
In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

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

Section 4: First Aid Measures (Continued)

Serious Inhalation: **Not Available.**

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: **Not available.**

Section 5: Fire and Explosion Data

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

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

Flash Points: **Not available.**

Flammable Limits: **Not available.**

Products of Combustion:
A small amount (less than 0.1% as Cr) of reversion to hexavalent chromium may occur if this product is exposed to elevated temperatures.

Fire Hazards in Presence of Various Substances: **Not applicable.**

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:
Chlorine trifluoride reacts violently with Chromium oxide producing flame.

Special Remarks on Explosion Hazards:
Contact between glycerol and Chromium oxide may produce explosion.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. 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 locked up.. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage:

Hygroscopic. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

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.

Section 8: Exposure Controls/Personal Protection (Continued)

Exposure Limits:
TWA: 0.5 (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. (Crystalline solid. Powdered solid.)

Odor	: Odorless.
Taste	: Not available.
Molecular Weight	: 151.99 g/mole.
Color	: Green. (Dark.)
pH (1% soln/water)	: Not applicable.
Boiling Point	: 4000°C (7232°F)
Melting Point	: 2435°C (4415°F)
Critical Temperature	: Not applicable.
Specific Gravity	: 5.21 (Water = 1)
Vapor Pressure	: Not applicable.
Vapor Density	: Not applicable.
Volatility	: Not available.
Odor Threshold	: Not applicable.
Water/Oil Dist. Coeff.	: Not applicable.
Ionicity (in Water)	: Not available.
Dispersion Properties	: Not applicable.
Solubility	: Insoluble in cold water, acetone, and alcohol. Slightly soluble in acids, and Alkalis.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Section 10: Stability and Reactivity Data (Continued)

Conditions of Instability: Incompatible materials.

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:
Hygroscopic. Turns brown on heating, but reverts to green color on cooling. Can react with molten alkali at very high temperatures under oxidizing conditions. May react with Chlorine trifluoride, lithium, nitro alkanes, oxygen difluoride, rubidium acetylide, and other strong oxidizers. A vigorous reaction occurs between oxygen difluoride and chromium oxide. Chromium (III) compounds are reduced to Chromium (II) compounds by hypophosphites, concentrated per chloric acid, sodium bismuthate, permanganate, electrolysis, reducing metals such as zinc, magnesium and aluminum in acid solution. In basic solution, Cr(III) is readily oxidized to CrO4(-2) by hypclorite, hyprobromite, peroxide, and oxygen under pressure at high temperature. Chromium oxide and rubidium acetylide react exothermically.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: LD50: Not available. LC50: Not available.

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: upper respiratory tract, skin.

Other Toxic Effects on Humans:
Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:
May cause cancer (tumorigenic) based on animal data.

Section 11: Toxicological Information (Continued)

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause gastrointestinal tract irritation. Chronic Potential Health Effects: Skin: May cause sensitization dermatitis Inhalation: Contains trivalent chromium compound. As noted by ACGHI, in their publication, "Documentation of Threshold Limit Values" repeated and prolonged exposures may cause delayed effects involving the respiratory system such as chronic bronchitis, pneumoconiosis.

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 product itself and its products of degradation are not toxic.

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

Land transport (ADR-RID)

General information : Not regulated.

Sea transport (IMDG) [English only]

General information : Not regulated.

Air transport (ICAO-IATA) [English only]

General information : Not regulated.

Section 15: Other Regulatory Information

Federal and State Regulations:
Massachusetts RTK: Chromium oxide New Jersey: Chromium oxide TSCA 8(b) inventory: Chromium oxide SARA 313 toxic chemical notification and release reporting: Chromium oxide CERCLA: Hazardous substances.: Chromium oxide.

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): Not controlled under WHMIS (Canada).
DSCL (EEC): R36/38- Irritating to eyes and skin. R40- Possible risks of irreversible effects. S2- Keep out of the reach of children. S36/37- Wear suitable protective clothing and gloves. S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.):
Health Hazard: 2
Fire Hazard: 0
Reactivity: 0
Personal Protection: E

Section 15: Other Regulatory Information (Continued)

National Fire Protection Association (U.S.A.):
Health: 2
Flammability: 0
Reactivity: 0
Specific hazard:

Protective Equipment:
Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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