

MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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SECTION 1 Product Identification

CHEMICAL NAME: Chromium (III) chloride hexahydrate

CAS #: 10060-12-5

FORMULA: CrCl₃·6H₂O

SYNONYM: Chromic chloride hexahydrate, Hexaaquachromium chloride, Chromium trichloride, hexahydrate

SECTION 2 Composition and Information on Ingredients

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	10060-12-5	100	0.5mg/m ³ (as Cr)	0.5mg/m ³ (as Cr)

SECTION 3 Hazards Identification

EMERGENCY OVERVIEW: Corrosive to skin, eyes, and mucous membranes. May cause coughing, wheezing, shortness of breath, headache, nausea and vomiting. Ingestion may cause damage to the mouth, throat and esophagus.

PRIMARY ROUTES OF EXPOSURE: Ingestion, inhalation, skin, eyes.

EYE CONTACT: Corrosive to eyes.

SKIN CONTACT: Corrosive to skin. May cause sensitization.

INHALATION: Inhalation causes inflammation of the respiratory tract, edema and chemical pneumonitis. May cause sensitization.

INGESTION: Ingestion causes damage to the mouth, throat and esophagus. Harmful if swallowed.

CHRONIC HEALTH EFFECTS: Although less toxic than Chromium (VI), some animal studies show chromium (III) chloride to act as a mutagen and reproductive effector. Possible risk of impaired fertility and irreversible effects.

ACUTE HEALTH EFFECTS: Corrosive to skin, eyes and mucous membranes. Ingestion may cause damage to the mouth throat and esophagus. Possible risk of harm to the unborn child.

SECTION 4 First Aid Measures

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 Firefighting Measures

FLASH POINT: not applicable

AUTO IGNITION TEMPERATURE: not applicable

EXPLOSION LIMITS: none

EXTINGUISHING MEDIUM: Material is non-flammable.

SPECIAL FIREFIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: If involved in a fire this material may emit fumes containing toxic chromium compounds

UNUSUAL FIRE OR EXPLOSION HAZARDS: No unusual fire or explosion hazards.

SECTION 6 Accidental Release Measures

SPILL AND LEAK PROCEDURES: Small spills can be mixed with vermiculite or sodium carbonate powder and swept up.

SECTION 7 Handling and Storage

HANDLING AND STORAGE: Store material in a tightly sealed container .

SECTION 8 Exposure Controls and Personal Protection

EYE PROTECTION: Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

SKIN PROTECTION: Chemical-resistant.

VENTILATION: If possible, handle the material in an efficient fume hood.

RESPIRATOR: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

SECTION 9 Physical and Chemical Properties

COLOR AND FORM: green xtl.

MOLECULAR WEIGHT: 158.35 (266.48)

MELTING POINT (DEG. C.): none

BOILING POINT: no data

VAPOR PRESSURE: no data

SPECIFIC GRAVITY: 1.76

SOLUBILITY IN WATER: very soluble

SECTION 10 Stability and Reactivity

STABILITY: air and moisture stable

HAZARDOUS POLYMERIZATION: no hazardous polymerization
CONDITIONS TO AVOID: none
INCOMPATIBILITY: active metals
DECOMPOSITION PRODUCTS: water and chromium chloride

SECTION 11 Toxicological Information

RTECS DATA: Oral (rat); LD50: 1790 mg/kg. Intraperitoneal (mouse); LD50: 285 mg/kg. Intravenous (mouse); LDLo: 1602 mg/kg. Intravenous (rabbit); LDLo: 576 mg/kg. Intravenous (frog); LDLo: 374 mg/kg. Intraperitoneal (mouse); TDLo: 134 mg/kg. Bacteria-Escherichia coli; DNA repair: 31 ug/well. Human cells-not otherwise specified; Mutation test systems-not otherwise specified: 500 mg/L. Human Lymphocyte; Cytogenetic analysis: 2500 ug/L. Human Leukocyte; Cytogenetic analysis: 400 mg/L.

MUTAGENIC EFFECTS: no data

TETRATOGENIC EFFECTS: no data

CARCINOGENIC EFFECTS: no data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 Ecological Information

ECOLOGICAL INFORMATION: No information available

SECTION 13 Disposal Considerations

DISPOSAL: Dispose of in according to local state and federal regulations.

SECTION 14 Transportation Information

Corrosive solid, acidic, inorganic, n.o.s., Class 8, UN 3260, PG III

SECTION 15 Regulatory Information

TSCA: Not listed in the TSCA inventory

SARA (TITLE 313): Title compound : See category N090 for reporting.

SECTION 16 Other Information

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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