

CHROMOUS CHLORIDE

CRC

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Chromium chloride Chromium dichloride		Solid White to blue
		Sinks and mixes with water.
<p>Keep people away. AVOID CONTACT WITH SOLID AND DUST. Avoid inhalation. Wear goggles, self-contained breathing apparatus, and rubber gloves. Notify local health and pollution control agencies. Protect water intakes.</p>		
Fire	Fire data is not available.	
Exposure	<p>CALL FOR MEDICAL AID. DUST Harmful if inhaled. Move to fresh air. If breathing has stopped, give artificial respiration.</p> <p>SOLID Irritating to skin and eyes. Harmful if swallowed. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk.</p>	
Water Pollution	<p>HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.</p>	

<p>1. CORRECTIVE RESPONSE ACTIONS Dilute and disperse Stop discharge Collection Systems: Dredge Cover with organic sulfur containing compounds or sulfur</p>	<p>2. CHEMICAL DESIGNATIONS 2.1 CG Compatibility Group: Not listed. 2.2 Formula: CrCl₂ 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: 3102 2.5 CAS Registry No.: 10049-05-5 2.6 NAERG Guide No.: 171 2.7 Standard Industrial Trade Classification: 52329</p>
<p>3. HEALTH HAZARDS 3.1 Personal Protective Equipment: Rubber gloves, safety glasses, respirator, protective clothing. 3.2 Symptoms Following Exposure: INHALATION: Nasal irritation, septal perforation, pulmonary irritation. EYES: Irritation. SKIN: Irritation and ulceration. INGESTION: Violent G.I. irritation with vomiting and diarrhea. 3.3 Treatment of Exposure: Call a physician. INHALATION: Move to fresh air. EYES: Flush with copious amounts of water. SKIN: Wash with soap and plenty of water. INGESTION: If conscious, make victim drink water or milk, then induce vomiting. 3.4 TLV-TWA: 0.5 mg/m³ as Cr. 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 2; LD₅₀ = 0.5 to 5 g/kg. 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Possible carcinogen and mutagen. 3.10 Vapor (Gas) Irritant Characteristics: Currently not available 3.11 Liquid or Solid Characteristics: Currently not available 3.12 Odor Threshold: Currently not available 3.13 IDLH Value: 250 mg/m³ as Cr⁶⁺ 3.14 OSHA PEL-TWA: 1.0 mg/m³ as Cr 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: Not listed. 3.17 EPA AEGL: Not listed</p>	

4. FIRE HAZARDS

- 4.1 Flash Point: Currently not available
- 4.2 Flammable Limits in Air: Currently not available
- 4.3 Fire Extinguishing Agents: Currently not available
- 4.4 Fire Extinguishing Agents Not to Be Used: Currently not available
- 4.5 Special Hazards of Combustion Products: Currently not available
- 4.6 Behavior in Fire: Currently not available
- 4.7 Auto Ignition Temperature: Currently not available
- 4.8 Electrical Hazards: Currently not available
- 4.9 Burning Rate: Currently not available
- 4.10 Adiabatic Flame Temperature: Currently not available
- 4.11 Stoichiometric Air to Fuel Ratio: Not pertinent
- 4.12 Flame Temperature: Currently not available
- 4.13 Combustion Molar Ratio (Reactant to Product): Not pertinent
- 4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed

5. CHEMICAL REACTIVITY

- 5.1 Reactivity with Water: On standing in solution it is oxidized by water with liberation of H₂. Keep well closed.
- 5.2 Reactivity with Common Materials: Currently not available
- 5.3 Stability During Transport: Very hygroscopic; stable in dry air but oxidizes rapidly if moist. Powerful reducing agent. Keep container well closed.
- 5.4 Neutralizing Agents for Acids and Caustics: Mix with equal volume of soda ash and add water. Add calcium hypochlorite. Add more water and let stand for two hours. Neutralize oxidized solution. (Check with litmus and neutralize with 6M HCl or 6M NaOH.) Flush with large excess of water.
- 5.5 Polymerization: Currently not available
- 5.6 Inhibitor of Polymerization: Currently not available

6. WATER POLLUTION

- 6.1 Aquatic Toxicity: Oxidizes to trivalent chromic condition. 1.2 to 2.4 mg/l lethal limit for sticklebacks
- 6.2 Waterfowl Toxicity: Currently not available
- 6.3 Biological Oxygen Demand (BOD): Currently not available
- 6.4 Food Chain Concentration Potential: Currently not available
- 6.5 GESAMP Hazard Profile: Not listed

7. SHIPPING INFORMATION

- 7.1 Grades of Purity: Currently not available
- 7.2 Storage Temperature: Currently not available
- 7.3 Inert Atmosphere: Currently not available
- 7.4 Venting: Vented storage recommended
- 7.5 IMO Pollution Category: Currently not available
- 7.6 Ship Type: Currently not available
- 7.7 Barge Hull Type: Currently not available

8. HAZARD CLASSIFICATIONS

- 8.1 49 CFR Category: Not listed.
- 8.2 49 CFR Class: Not pertinent
- 8.3 49 CFR Package Group: Not listed.
- 8.4 Marine Pollutant: No
- 8.5 NFPA Hazard Classification: Not listed
- 8.6 EPA Reportable Quantity: Not listed.
- 8.7 EPA Pollution Category: Not listed.
- 8.8 RCRA Waste Number: Not listed
- 8.9 EPA FWPCA List: Not listed

9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 Physical State at 15° C and 1 atm: Solid
- 9.2 Molecular Weight: 122.92
- 9.3 Boiling Point at 1 atm: Currently not available
- 9.4 Freezing Point: 1515°F = 824°C = 1097°K
- 9.5 Critical Temperature: Currently not available
- 9.6 Critical Pressure: Currently not available
- 9.7 Specific Gravity: 2.751 at 14°C, 2.878 at 25°C
- 9.8 Liquid Surface Tension: Currently not available
- 9.9 Liquid Water Interfacial Tension: Currently not available
- 9.10 Vapor (Gas) Specific Gravity: Currently not available
- 9.11 Ratio of Specific Heats of Vapor (Gas): Currently not available
- 9.12 Latent Heat of Vaporization: Currently not available
- 9.13 Heat of Combustion: Currently not available
- 9.14 Heat of Decomposition: Currently not available
- 9.15 Heat of Solution: For anhydrous CrCl₂ -273 Btu/lb = -151.6 cal/g = -6.34 X 10³ J/kg
- 9.16 Heat of Polymerization: Currently not available
- 9.17 Heat of Fusion: 65.9 cal/g
- 9.18 Limiting Value: Currently not available
- 9.19 Reid Vapor Pressure: Currently not available

NOTES

CHROMOUS CHLORIDE

CRC

9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	C U R R E N T L Y N O T A V A I L A B L E		C U R R E N T L Y N O T A V A I L A B L E		C U R R E N T L Y N O T A V A I L A B L E		C U R R E N T L Y N O T A V A I L A B L E

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	S O L U B L E		C U R R E N T L Y N O T A V A I L A B L E		C U R R E N T L Y N O T A V A I L A B L E		C U R R E N T L Y N O T A V A I L A B L E