

MATERIAL SAFETY DATA SHEET

Manufacturer: Strem Chemicals, Inc
 7 Mulliken Way
 Newburyport, MA 01950-4098 U.S.A.
 www.strem.com

Strem Customer Service (978) 499-1600
 CHEMTREC (Emergency Only) (800) 424-9300
 Poison Center (800) 562-8236

Section 1: Product Identification	
Chemical Name:	Chromium (III) fluoride, anhydrous, 98%
Product Number:	93-2434
CAS Registry Number:	7788-97-8
Formula:	CrF3
EINECS Number:	232-137-9
Chemical Family:	metal halide
Synonym:	Chromic fluoride, Chromium trifluoride

Section 2: Composition and Information on Ingredients				
Ingredient	CAS Number	Percent	ACGIH (TWA)	OSHA (PEL)
Title compound	7788-97-8	100%	0.5mg/m3 (as Cr)	0.5mg/m3 (as Cr)

Section 3: Hazards Identification	
Emergency Overview:	If inhaled or swallowed, this compound may cause fluoride poisoning by reducing cellular calcium function. Early symptoms include nausea, vomiting, diarrhea and weakness.
Primary Routes of Exposure:	Ingestion, inhalation, skin, eyes.
Eye Contact:	Causes burns and serious eye damage. Effects may not immediately appear.
Skin Contact:	Causes burning with redness and pain. Soluble fluoride may be corrosive. Effects may not immediately appear.
Inhalation:	Inhalation of dust may cause chemical burns to the respiratory tract, causing coughing, sore throat, and labored breathing.
Ingestion:	May cause salivation, nausea, vomiting, diarrhea, and abdominal pain.
Acute Health Affects:	Fluoride poisoning may cause nausea, vomiting, diarrhea, weakness, coma and respiratory paralysis. Causes burns to eyes, ulceration of skin.
Chronic Health Affects:	Prolonged exposure to soluble fluorine compounds can cause deterioration of bone and tooth structure, and kidney damage. Although less toxic than Chromium (VI), some animal studies show chromium (III) to act as a mutagen and tumorigen.
NTP:	Yes
IARC:	Yes
OSHA:	No

SECTION 4: First Aid Measures	
Eye Exposure:	Immediately flush the eyes with copious amounts of water for at least 10-15 minutes. A victim may need assistance in keeping their eye lids open. Get immediate medical attention.
Skin Exposure:	Wash the 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 attention immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

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SECTION 5: Fire Fighting Measures

Flash Point: no data
Autoignition Temperature: no data
Explosion Limits: no data
Extinguishing Medium: carbon dioxide, dry powder or foam.
Special Fire Fighting Procedures: If involved in a fire, fire fighters should be equipped with 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 corrosive hydrofluoric acid fumes.
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 powdered sodium bicarbonate, lime, or calcium carbonate and swept up.

SECTION 7: Handling and Storage

Handling and Storage: Store in a tightly sealed container. Keep away from heat and moisture. Handle and store under a dry atmosphere of nitrogen or argon.

SECTION 8: Exposure Controls and Personal Protection

Eye Protection: Always wear approved safety glasses when handling a chemical substance in the laboratory.
Skin Protection: Wear protective clothing and gloves.
Ventilation: If possible, handle the material in an efficient fume hood.
Respirator: If ventilation is not available a respirator should be worn. The use of respirators requires a Respiratory Protection Program to be in compliance with 29 CFR 1910.134.
Ventilation: If possible, handle the material in an efficient fume hood.
Additional Protection: No additional protection required.

SECTION 9: Physical and Chemical Properties

Color and Form: green powder
Molecular Weight: 108.99
Melting Point: >1000°
Boiling Point: no data
Vapor Pressure: no data
Specific Gravity: no data
Odor: none
Solubility in Water: Slightly soluble

SECTION 10: Stability and Reactivity

Stability: moisture sensitive
Hazardous Polymerization: No hazardous polymerization.
Conditions to Avoid: Contact with moisture
Incompatibility: mineral acids
Decomposition Products: with moisture and heat: hydrofluoric acid

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SECTION 11: Toxicological Information

RTECS Data: Oral (guinea pig); LDLo: 150 mg/kg. Subcutaneous (frog); LDLo: 420 mg/kg.
Carcinogenic Effects: no data
Mutagenic Effects: no data
Tetratogenic Effects: no data

SECTION 12: Ecological Information

Ecological Information: No information available

SECTION 13: Disposal Considerations

Disposal: Dispose of according to local, state and federal regulations.

SECTION 14: Transportation

Shipping Name (CFR): Chromic fluoride, SOLID
Hazard Class (CFR): 8
Additional Hazard Class (CFR): NA
Packaging Group (CFR): II
UN ID Number (CFR): UN# 1756
Shipping Name (IATA): Chromic fluoride, SOLID
Hazard Class (IATA): 8
Additional Hazard Class (IATA): NA
Packaging Group (IATA): II
UN ID Number (IATA): UN# 1756

SECTION 15: Regulatory Information

TSCA: Listed in the TSCA inventory.
SARA (Title 313): Title compound: See category code N090 for reporting.
Second Ingredient: none
Third Ingredient: none

SECTION 16: Other Information

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