

MATERIAL SAFETY DATA SHEET

I PRODUCT IDENTIFICATION

Chemical Name: Copper (II) Fluoride	Chemical Family: Inorganic fluorides
Synonyms: Cupric fluoride, copper fluoride dihydrate	Formula: CuF ₂ ·2H ₂ O
CAS #: 13454-88-1	

II HAZARDOUS INGREDIENTS

<u>%</u>	<u>OSHA/PEL</u>	<u>ACGIH/TLV</u>
100	2.5 mg F/m ³	2.5 mg F/m ³

III PHYSICAL DATA

Boiling Point: Decomposes	% Volatiles: Not volatile
Solubility in H₂O: Slightly soluble, 4.7 g/100 g H ₂ O	Specific Gravity (H₂O = 1): 2.98
Freezing/Melting Point: Decomposes	Evaporation Rate: N/A
Vapor Density: N/A	Vapor Pressure: N/A
Appearance and Odor: Blue powder.	

IV FIRE AND EXPLOSION HAZARDS DATA

Flash Point: N/A **Autoignition Temperatures:** N/A
Flammable Limits in Air: Lower: N/A Upper: N/A

Extinguishing Media: Use water, carbon dioxide, dry chemical extinguishing agents, dry sand or dry ground dolomite.
Special Firefighting Procedures: No special firefighting procedures needed. Use normal procedures which include wearing NIOSH/MSHA approved self-contained breathing apparatus, flame and chemical resistant clothing; hats, boots and gloves. If without risk, remove material from fire area. Cool container with water from maximum distance.

Unusual Fire and Explosion Hazards: May emit hydrogen fluoride.

V HEALTH HAZARD INFORMATION

Most Likely Routes of Entry: Inhalation, ingestion, skin and eye contact.
Medical Conditions, if any, Aggravated by the Chemical: Respiratory illness.
Other Health Hazards: None known.

Effects of Exposure:

Acute:

Inhalation: Irritating to mucous membranes and upper respiratory tract.	Skin: None known.
Ingestion: Harmful if swallowed, no specific details found.	Eye: None known.

Chronic Effects:

Inhalation: Chronic fluorine poisoning can cause severe bone changes, loss of weight, anorexia, anemia and dental defects.
Ingestion: Chronic fluorine poisoning can cause severe bone changes, loss of weight, anorexia, anemia and dental defects.
Skin: None known.
Eye: None known.

Other: To the best of our knowledge the acute and chronic toxicity of this substance has not been fully investigated.

Carcinogenicity: NTP: No IARC: No OSHA: No EPA: No

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. Call a physician immediately.

INGESTION: Dilute with milk, lime water or aluminum hydroxide. Seek emergency medical attention immediately.

SKIN: Remove contaminated clothing, flood skin with large amounts of water. If irritation persists, seek medical attention.

EYE: Immediately flush eyes, including under eyelids, with large amounts of water for at least 15 minutes. Call a physician.

VI REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Thermal decomposition.

Incompatibility (Material to Avoid): Strong acids.

Hazardous Decomposition Products: F₂, contact with acids may produce HF which is a highly toxic and corrosive material.

Hazardous Polymerization: Will not occur.

VII SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material is Released or Spilled: Wearing full protective equipment, cover spill with dry sand or vermiculite. Mix well and carefully transfer to a container.

Waste Disposal Method: In accordance with State, Federal and Local regulations.

VIII SPECIAL PROTECTION INFORMATION

Respiratory Protection: NIOSH/MSHA approved high efficiency particulate respirator for ordinary use and self-contained breathing apparatus for emergency use.

Ventilation: Laboratory fume hood.

Protective Gloves: Rubber

Eye Protection: ANSI approved safety goggles.

IX SPECIAL PRECAUTIONS

Precautions to Be Taken in Handling and Storage: Keep container tightly closed. Store in a cool, dry, well-ventilated area. Wash thoroughly after use.

Other Precautions: Lab coat and apron, flame and chemical resistant coveralls, eyewash capable of sustained flushing, safety drench shower and hygienic facilities for washing.

Danger: Poison, severe eye, skin and lung irritant.

RCRA Code: Not listed.

TSCA Registered: Yes

This product contains copper which is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and 40 CFR 372.

Issued by: S. Dierks

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