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## MATERIAL SAFETY DATA SHEET

### Section 1- PRODUCT IDENTIFICATION

COMPOSITION <b>CaF2</b>	PRODUCT NAME <b>Calcium Fluoride</b>
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### Section 2- HAZARDOUS INGREDIENTS

Note: Products under normal conditions do not represent an inhalation, ingestion or contact health hazard.

MATERIAL OR COMPONENT	CAS NUMBER	WT%	EXPOSURE LIMITS	
			OSHA PEL (Mg/M3)	ACGIH TLV(MG/M3)
<b>CaF2</b>	<b>7789-75-5</b>		<b>2.5mg(F)/m3</b>	<b>2.5mg(F)/m3</b>

### Section 3- PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS) <input type="checkbox"/> Liquid <input type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other	APPEARANCE AND ODOR <b>White powder or pieces, no odor.</b>
MELTING POINT (BASE METAL) <b>1423° C to 1360° C</b>	SPECIFIC GRAVITY

### Section 4- FIRE AND EXPLOSION

Flash Point (Method Used) <b>N/A</b>	Flammable Limits <b>Non-Flammable</b>	LEL <b>N.A.</b>	UEL <b>N.A.</b>
EXTINGUISHING MEDIA <b>Use suitable extinguishing media for surrounding materials and type of fire.</b>			
SPECIAL FIRED FIGHTING PROCEDURES <b>Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.</b>			
UNUSUAL FIRE AND EXPLOSION HAZARDS <b>When heated to decomposition, calcium fluoride may emit toxic fumes.</b>			

### Section 5- REACTIVITY DATA

STABILITY <b>Stable</b>	INCOMPATABILITY (MATERIALS TO AVOID) <b>N/A</b>
CONDITIONS TO AVOID <b>None</b>	
HAZARDOUS DECOMPOSITION PRODUCTS <b>Fumes of fluorine</b>	

## Section 6- HEALTH HAZARD GUIDE

### MAJOR EXPOSURE HAZARD

Inhalation Skin Skin Absorption Eye Contact Ingestion

**INHALATION:** May cause ulcers of the upper respiratory tract, excessive salivation, vomiting, thirst, sweating, colic and diarrhea. Fibrosis may cause: sclerosis of the bones, classification of ligaments, mottled teeth, osteosclerosis, ostemalacia, loss of weight, anorexia, anemia, wasting, cachia and dental defects.

**INGESTION:** May cause nausea, vomiting, diarrhea, abdominal burning, cramp like pain, a stiff spine, calcification of ligaments of the ribs and pelvis.

**SKIN CONTACT:** May cause redness, itching, and chemical burns.

**EYE CONTACT:** May cause redness, itching, watering and chemical burns.

**Medical conditions generally aggravated by exposure can cause or aggravate asthma.**

Calcium compounds: The fumes evolved by burning calcium in air are composed of calcium oxide which is an irritant to the skin, eyes and mucous membrane. Generally speaking, calcium compounds should be considered toxic only when they contain toxic components or as calcium oxide or hydroxide. Calcium compounds are common contaminants. Inorganic fluorides are generally highly irritation and toxic. Chronic fluorine poisoning or "fluorosis" occurs among miners of cryolite, and consists of sclerosis of the bones, caused by fixation of the calcium by fluorine. There may also be some calcification of the ligaments. The teeth are mottled and there is oseosclerosis and ostemalacia. Large doses can cause very severe nausea, vomiting, and diarrhea; aggravate attacks of asthma and severe bone changes, making normal movements painful. Some signs of pulmonary fibrosis are noted. Some enzyme system effects are reported. Irritants to the eyes, skin and mucous membranes. Loss of weight, anorexia, anemia, wasting and cachexia and dental defects are among the coming findings in chronic fluorine poisoning. There may be an eosinophilia and impairment of growth in young workers. Symptoms of intoxication include gastric, intestinal, circulatory, respiratory and nervous complaints and rashes.

### EMERGENCY & FIRST AID PROCEDURES

**INHALATION:** Remove from exposed area to fresh air; keep warm and quiet. Give oxygen if breathing is difficult.

**INGESTION:** Give 1-2 glasses of milk or water and induce vomiting.

**SKIN CONTACT:** Remove contaminated clothing, brush material off skin, wash affected area with soap and water.

**EYE CONTACT:** Flush eyes with lukewarm water lifting up the upper and lower lids for at least fifteen minutes. If irritation develops, contact a physician.

## Section 7- SPILL OR LEAK PROCEDURES

### SPILL OR LEAK PROCUDRES

**Wear appropriate respiratory and protective equipment. Isolate spill area and provide ventilation. Vacuum up the spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.**

### WASTE DISPOSAL METHODS

**Dispose of in accordance with local, state and federal regulations.**

## Section 8- SPECIAL PROTECTION

### RESPIRATORY

**NIOSH approved dust, mist & vapor respirator.**

### VENTILATION

**Local Exhaust: To maintain concentration at or below PEL, TLV.**

**Mechanical: Recommended.**

### EYE PROTECTION & PROTECTIVE CLOTHING

**Safety glasses, rubber (neoprene) gloves, and protective gear to protect contamination.**

#### **Section 9- SPECIAL PRECAUTIONS**

**Some of the chemicals listed herein are research or experimental substances, which may be toxic, as defined by various governmental regulations. In accordance with Environmental Protection Agency regulations and Toxic Substance Control Act, these materials should only be handled by, or under direct supervision of a "technically qualified individual", as defined in 40 CFR 710.2(aa).**

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