

## CERIUM FLUORIDE

### Section I

<b>Kurt J. Lesker Company</b> 1925 Worthington Avenue Clairton, PA 15025 Ph: 412/387-9200 Fax: 412/233-4275		Emergency Phone Numbers KJLC 800/245-1656 Chemtrec 800/424-9300 Poison Center 800/562-8236	
Chemical Name and Synonyms Cerium Fluoride, Cerium Trifluoride, Cerous Fluoride			Date of Last Revision 6/197
Formula CeF <sub>3</sub>	Chemical Family Metal Halide	Chemical Abstract No. 7758-88-5	
TSCA Listed in the EPA TSCA Inventory			Calc. Molecular Wt. 197.12

### Section II Hazardous Ingredients

Hazardous Ingredients	CAS #	%	TLV	OSHA PEL
Cerium Fluoride	7758-88-5	100	2.5mg/m <sup>3</sup> (as F)	2.5mg/m <sup>3</sup> (as F)

### Section III Physical Data

Boiling Point (°C): 2300 - 2327	Density (gmcc): 6.16
Vapor Pressure: NA	% Volatile by Volume: NA
Reaction with Water: Slow hydrolysis	Evaporation Rate (H <sub>2</sub> O -1): NA
Solubility in Water: Insoluble	Melting Point (°C): 1430 - 1460
Appearance and Odor: White, hexagonal crystals, odorless	Other Comments:

### Section IV Fire & Explosion Hazard Data

Flash Point (method) NA	Autoignition Temp. NA	Flammability Non-flammable	LEI NA	UEI NA
Extinguishing Media: Use dry chemical, CO <sub>2</sub>				
Special Fire Fighting Procedures: Wear a self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes.				
Unusual Fire and Explosion Hazards: When heated to decomposition, it emits toxic fumes of F.				

### Section V Spill or Leak Process

Steps to be Taken in Case Material is Released or Spilled Wear a self-contained breathing apparatus and full protective clothing.
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Isolate the area where the spill occurred and insure proper ventilation is available. Vacuum up the spill using a high efficiency unit and place in a container for proper disposal. Take care not to raise dust.

Waste Disposal Method (Consult federal, state or local authorities for proper disposal procedures.): Dispose of in accordance with applicable federal, state and local regulations.

**Section VI Health Hazard Data**

<p>Toxicity Data: No data available on this compound  <u>HF data</u></p> <p>dnd-dmg-ihl: 1300ppb/6W  shn-dng-ihl: 2900ppb  ihl-man TCLO: 110ppm/1M: IRR  ihl-hmn LCLO: 50ppm/30M  ihl-rat LC50: 1276ppm  ipr-rat LDLO: 25mg/kg  ihl-mky LC50: 1774ppm/1H  ihl-mus LC50: 456ppm/1H  ihl-rbt LCLO: 260 mg/m<sup>3</sup>/7H  ihl-gpg-LC50: 4327ppm/15M  scu-frg LDLO: 112mg/kg  ihl-rat TCLO: 470/m<sup>3</sup>/14H (1-22D PREG)  ihl-rat TCLO: 4980mg/m<sup>3</sup>/4H (1-22D PREG)</p>	<p>HMIS Hazard Rating  Health: 2  Flammability: 0  Reactivity: 1  Personal Protection: G</p>								
<p>Route(s) of Entry            Inhalation: X            Skin: X            Ingestion: X</p>									
<p>Effects of Overexposure (acute and chronic)  Inhalation: Inhalation of CeF<sub>3</sub> may be irritating to the respiratory tract. Inorganic fluorides are generally highly irritating and toxic. Inhalation may cause irritation to the mucous membrane and respiratory tract.  Dermal/Eye Contact: CdF<sub>3</sub> may be mechanically irritating to the skin and eyes. It may cause redness and watering of the eyes.  Other (specify): Acute effects resulting from exposure to fluorine compounds are due to the hydrogen fluoride. chronic exposure may cause "fluorosis", which consists of sclerosis of the bones, caused by fixation of the calcium by fluorine. There may also be some calcification of the ligaments. It may cause osteosclerosis and osteomalacia. Large doses can cause very severe nausea, vomiting, diarrhea, abdominal burning and cramp-like pains. It can cause or aggravate attacks of asthma; can cause sever bone changes, making normal movement painful. Some signs of pulmonary fibrosis are noted. It is an irritant to the eyes, skin and mucous membrane, Also loss of weight, anorexia, anemia, wasting and cachexia, and dental defects are common in fluorine poisoning. Symptoms of intoxication include gastric, intestinal, circulatory, respiratory and nervous complaints and skin rashes.</p>									
<p>Medical Conditions Generally Aggravated by Exposure: Respiratory disorders</p>									
<table border="0"> <tr> <td>Carcinogenicity</td> <td>NTP:</td> <td>IARC Monographs</td> <td>OSHA Regulations</td> </tr> <tr> <td>None</td> <td>No</td> <td>No</td> <td>No</td> </tr> </table>		Carcinogenicity	NTP:	IARC Monographs	OSHA Regulations	None	No	No	No
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None	No	No	No						
<p>Emergency and First Aid Procedures  Ingestion: Give 1-2 glasses of milk or water and induce vomiting. Seek medical attention.</p>									

Inhalation: Remove to fresh air and give oxygen if breathing is difficult.  
 Skin Contact: Brush off skin and wash area with soap and water. Seek medical attention.  
 Eye Contact: Flush eyes with lukewarm water for 15 minutes and seek medical attention.

**Section VII Reactivity Data**

Stable: X Unstable:	Conditions Contributing to Instability: None
Incompatibility (materials to avoid): Strong acids, strong bases	
Hazardous Decomposition Products - Thermal and Other (list): May emit highly toxic fumes of F if contacted with strong acids or it is heated to decomposition.	
Hazardous Polymerization May Occur: Will Not Occur: X	Conditions to Avoid: Heat, flame and incompatible materials.

**Section VIII Special Protective Information**

Respiratory Protection (specify type). Use Only Niosh Approved Equip. Wear NIOSH-approved dust/mist/fume cartridge respirator	
Ventilation (always maintain exposure below permissible limits) Local Exhaust: Maintain below TLV for F Mechanical (general): Recommended Special: Handle in a controlled atmosphere Other: NA	
Protective Gloves: Neoprene	Eye Protection: Safety Glasses
Other Protective Equipment/Work Practices: Wear protective clothing to prevent contamination of skin and clothes.	

**Section IX Special Precautions**

Precautions to be Taken in Handling and Storing: Store in tightly closed containers in a cool, dry place. Wash hands and face thoroughly after handling and before meals.
Transportation Requirements DOT Class: Not classified UN Number: Not classified IMCO Class: Not classified Other:

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ND = NO DATA FOUND      NA = NOT APPLICABLE