



LTS Research Laboratories, Inc.
Safety Data Sheet
Cerium Fluoride

1. Product and Company Identification

Trade Name: Cerium fluoride
Chemical Formula: CeF_3
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 37 Ramland Road
City: Orangeburg
State: New York
Zip Code: 10962
Country: USA
Tel #: 855-587-2436 / 845-lts-chem

24-Hour Emergency Contact: 800-424-9300 (US & Canada)
+1-703-527-3887 (International)

2. Hazards Identification

Signal Word: Warning



Hazard Statements: H302: Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332: Harmful if inhaled.
H335: May cause respiratory irritation

Precautionary Statements: P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash face, hands and any exposed skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P350: IF ON SKIN: Gently wash with plenty of soap and water.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P337+P313: If eye irritation persists get medical advice/attention.
P362: Take off contaminated clothing and wash before reuse.
P403+P233: Store in a well ventilated place. Keep container tightly closed.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

HMIS Health Ratings (0-4):	
Health:	2
Flammability:	1
Physical:	0

3. Composition

Chemical Family:	Salt
Additional Names:	Cerium trifluoride, Cerous fluoride
Cerium fluoride (CeF ₃):	
Percentage:	100 wt%
CAS #:	7758-88-5
EC #:	231-841-3

4. First Aid Procedures

General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	Gastric or intestinal disorders, Nausea, Thirst
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion:	Seek Medical Attention.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

5. Firefighting Measures

Flammability:	Non-flammable
Extinguishing Media:	No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

7. Handling and Storage

Handling Conditions:	Handle under dry protective gas. Wash thoroughly after handling. Wear personal protective equipment. Ensure adequate ventilation. Avoid ingestion and inhalation. Avoid dust formation. Do not get into eyes, on skin or on clothing.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store under inert gas. Store apart from materials and conditions listed in section 10. Keep away from direct sunlight.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	2.5 mg/m ³ as F, long term value
Threshold Limit Value:	2.5 mg/m ³ as F, long term value
Special Equipment:	None
Respiratory Protection:	dust respirator
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	White
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	~2300 °C
Melting Point:	1460 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	6.16 g/cc
Molecular weight:	197.11 g/mol

10. Reactivity

Stability:	Stable. Light sensitive. Moisture sensitive
Reacts With:	Oxidizing agents
Incompatible Conditions:	Sunlight, moist air or water
Hazardous Decomposition Products:	Hydrogen Fluoride, Cerium oxide

11. Toxicological Information

Potential Health Effects:

Eyes:	Causes serious eye damage
Skin:	Causes irritation
Ingestion:	May cause irritation
Inhalation:	May cause irritation
Chronic:	Cerium salts increase the blood coagulation rate. Exposure to cerium salts may increase sensitivity to heat, itching and skin lesions. Large doses to experimental animals have caused writhing, ataxia, labored respiration, sedation, hypotension and death by cardiovascular collapse. Fluorides may cause salivation, nausea, vomiting, diarrhea and abdominal pain, followed by weakness, tremors, shallow respiration, convulsions and coma. May cause brain and kidney damage. Chronic Fluoride poisoning can cause severe bone changes, loss of weight, anorexia, anemia and dental defects.

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: N/A

12. Ecological Information

Aquatic Toxicity: Low

Persistent Bioaccumulation Toxicity: No

Very Persistent, Very Bioaccumulative: No

Notes: N/A



13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous: Not hazardous for transportation.

Hazard Class: N/A

Packing Group: N/A

UN Number: N/A

Proper Shipping Name: N/A

15. Regulatory Information

Sec 302 Extremely Hazardous: No

Sec 304 Reportable Quantities: N/A

Sec 313 Toxic Chemicals: No

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

Document Last Revised:

12/18/2019

