1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Lanthanum Fluoride

Chemical Formula: LaF_3

Manufacturer Item Number: LA-2530

Manufacturer:
Lorad Chemical Corporation
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2. HAZARD IDENTIFICATION

Hazard Classification
Skin corrosion / irrigation (Category 2)
Serious eye damage / irritation (Category 2A)
Specific target organ toxicity (single exposure - respiratory system) (Category 3)

Signal Word: Warning

Pictograms:



Hazard Statements:

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary Statements:

Prevention

P260	Do not breath dust / fumes / gas / mist / vapors / spray.
P264+265	Wash hands thoroughly after handling. Do not touch eyes.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves / protective clothing / eye protection / face protection

Response

P301+330+331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+361+354	IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.
P304+340	IN INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+354+338	IN IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P316	Get emergency medical help immediately.
P363	Wash contaminated clothing before reuse.

Storage

P403+233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

	Disposal	
	P501	Dispose of contents / container to an approved waste disposal plant.
Other Hazards	No Data Available.	

3. COMPOSITION

Additional Names: Lanthanum Gallate, Strontium and Magnesium Doped, Lanthanum Strontium Gallium Magnesium Oxide, LGSM

Percentage:	**Component**	**Classification**	**Concentration**
	Lanthanum Fluoride	Skin Irrit. 2; H315, Eye Irrit. 2; H319, STOT SE 3 (Resp. Irrit.); H335	100% wt

CAS #: 13709-38-1

EC #: 236-675-5

4. FIRST AID PROCEDURES

General Treatment Consult a physician if symptoms develop. Show this SDS to the doctor in attendance. Move out of dangerous area.

Special Treatment: No specific treatment known.

Important Symptoms: May cause mechanical irritation to eyes, skin, and respiratory tract.

Inhalation: Move person to fresh air. If breathing is difficult, provide oxygen if trained to do so. Seek medical attention if symptoms persist.

Ingestion: Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention if unwell.

Skin: Wash with soap and water. Remove contaminated clothing. Seek medical attention if irritation develops or persists. Wash clothing before reuse.

Eyes: Flush with water for at least 15 minutes, lifting eyelids occasionally. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

5. FIREFIGHTING MEASURES

Special Hazards from Substance: May form hazardous decomposition products under fire conditions, including lanthanum oxide and hydrogen fluoride. Hydrogen fluoride is highly toxic and corrosive.

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Special Fire Fighting Procedures: Wear self contained breathing apparatus and full protective gear. Avoid inhalation of decomposition products.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled: Use appropriate personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Isolate spill area and provide ventilation. Sweep up or vacuum using equipment suitable for fine particulate. Place material in a suitable, closed container for disposal. Avoid creating airborne dust during cleanup.

Environmental Precautions: Prevent further leakage or spills if safe to do so. Do not allow to enter drains, sewers, or watercourses.

7. HANDLING AND STORAGE

Handling Conditions: Provide appropriate local exhaust ventilation where dust is generated. Avoid generation and inhalation of dust. Avoid contact with eyes, skin, and clothing.

Storage Conditions: Keep in a tightly closed container in a cool, dry, well ventilated area. Protect from moisture. Keep away from strong acids.

Work / Hygienic Maintenance: Handle in accordance with good industrial hygiene and safety practices. Do not eat, drink, or use tobacco in the work area. Wash thoroughly before eating, drinking, or smoking. Do not use compressed air to remove dust from clothing or skin.

Ventilation: Use local exhaust ventilation at points of dust generation.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

Authority	Basis	Limit	Remarks
OSHA	PEL	2.5 mg/m^3	No specific PEL established, reference limit for fluorides (8-hour time weighted average, as F^-)
NIOSH	REL	2.5 mg/m^3	8-hour time weighted average, applied to fluoride ion concentration
NIOSH	IDLH	250 mg/m^3	as F^-, applied to fluoride ion concentration
ACGIH	TLV	2.5 mg/m^3	8-hour time weighted average, applied to fluoride ion concentration

References:

PEL	Permissible Exposure Limit
REL	Recommended Exposure Limit
TWA	Time Weighted Average
IDLH	Immediately Dangerous to Life or Health
TLV	Threshold Limit Value
STEL	Short Term Exposure Limit

Additional Exposure Information: Occupational exposure limits may apply in EU member states. Occupational exposure limits for inorganic fluorides (as F^-) are commonly established at 2.5 mg/m^3 (TWA) in EU member states.

Special Equipment: Use appropriate engineering controls, including local exhaust ventilation, to minimize dust exposure.

Respiratory Protection: Where risk assessment indicates, use a NIOSH approved particulate respirator, such as P100 (US), or a P3 filter (EN 143, EU). Respiratory protection should be used when engineering controls are insufficient. Use equipment tested and approved under applicable government standards.

Protective Gloves: Handle with appropriate chemical resistant gloves. Inspect gloves prior to use. Use proper glove removal technique to avoid skin contact with the outer surface. Dispose of contaminated gloves in accordance with applicable regulations. Wash and dry hands after handling.

Eye Protection: Wear safety goggles or goggles with face shield as appropriate. Use equipment meeting ANSI Z87.1 (US) or EN 166 (EU) standards.

Body Protection: The type of protective equipment must be selected according to the concentration and amount of material at the workplace. Typical protection includes lab coat or appropriate work clothing.

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Color:	White to off-white	**Molecular Weight:**	195.9 g/mol
Forms:	Powder	**Theoretical Density:**	~5.94 g/cm^3
Odor:	Odorless	**pH:**	Not Applicable.

Water Solubility:	Practically insoluble	**Auto-Ignition Temperature:**	Not Applicable.
Boiling Point:	Not Applicable.	**Evaporation Rate:**	Not Applicable.
Melting Point / Freezing Point:	~1,493ºC (~2,719ºF)	**Flammability or Explosive Limits:**	Not flammable.
Vapor Pressure:	Not Applicable.	**Partition Coefficient: n-octanol/ water**	Not Applicable.
Vapor Density:	Not Applicable.	**Decomposition Temperature:**	No Data Available.
Flash Point:	Not Applicable.	**Viscosity:**	Not Applicable.

10. REACTIVITY

Stability:	Stable under normal ambient conditions.
Reacts with:	Strong acids. Reaction with acids may generate hydrogen fluoride.
Incompatible Conditions:	Exposure to moisture and strong acids.
Hazardous Decomposition Products:	Lanthanum oxide and hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	Eyes:	Causes eye irritation.
	Skin:	May cause skin irritation.
	Ingestion:	No Data Available.
	Inhalation:	May cause respiratory irritation.
Chronic Toxicity	Skin Corrosion / Irritation:	Causes skin irritation. Prolonged or repeated exposure may cause redness and dryness.
	Serious Eye Damage / Irritation:	Causes eye irritation. Exposure to dust may result in redness, tearing, and discomfort.
	Respiratory / Skin Sensitization:	No Data Available.
	Mutagenic Effects:	No Data Available.
	Reproductive / Teratogenic Effects:	No Data Available.
	Specific Target Organ Toxicity: (single exposure)	May cause respiratory irritation. Inhalation of dust may cause irritation of respiratory tract.
	Specific Target Organ Toxicity: (repeated exposure)	No Data Available.
	Aspiration Hazard:	No Data Available.
	Other Adverse Effects:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Carcinogenicity:	IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.
	ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Additional Information: No Data Available.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: No Data Available.

Persistence and degradability: No applicable to inorganic substances.

Bioaccumulative potential: No Data Available.

Notes: No Data Available.

13. DISPOSAL CONSIDERATIONS

Disposal: Offer surplus and non recyclable material to a licensed disposal company. Contact a licensed professional waste disposal service for proper disposal of this material. Dispose of contents and container in accordance with applicable local, state, and national regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORTATION DATA

Hazardous:
DoT: Not Dangerous Goods.
IMDG: Not Dangerous Goods.
IATA: Not Dangerous Goods
ADR/RID: Not Dangerous Goods

Pictogram: Not Applicable.

Hazard Class: Not Applicable.

Packing Group: Not Applicable.

UN Number: Not Applicable.

US DoT
Proper Name: Not Applicable.
Marine Pollutant:

IMDG
Proper Name: Not Applicable.
EMS-No:
Marine Pollutant:

IATA
Proper Name: Not Applicable.

15. REGULATORY INFORMATION

Toxic Substance Control Act This substance is listed on the TSCA inventory.

SARA 302 Components No chemicals in this material are subject to the reporting requirements of SARA title III, Section 302.

SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	Acute Health Hazard
Massachusetts Right to Know Components	No components are subject to reporting requirements.
Pennsylvania Right to Know Components	No components are subject to reporting requirements.
New Jersey Right to Know Components	No components are subject to reporting requirements.
California Prop. 65 Components	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.
EU Regulations	This substance is subject to REACH Regulation (EC) No 1907/2006 and is registered or exempt from registration, as applicable. This product does not contain substances listed on the Candidate List of Substances of Very High Concern (SVHC) above 0.1%. Classification and labeling are in accordance with CLP Regulation (EC) No 1272/2008. No restrictions under REACH Annex XVII are applicable. Not subject to Seveso Directive (2012/18/EU).

16. OTHER INFORMATION

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