

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Scandium Fluoride

Chemical Formula: ScF₃

Manufacturer Item Number: SC-4730

Manufacturer: Lorad Chemical Corporation
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2. HAZARD IDENTIFICATION

Signal Word: Danger

Pictograms:



Hazard Statements: H301+311+331 Toxic if swallowed, in contact with skin, or if inhaled.

Precautionary Statements:

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
P264 Wash 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.
P301+310 IF SWALLOWED: Immediately call a POISON CENTER or physician.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or physician if you feel unwell.
P322 Specific measures (see supplemental first aid instruction on this label).
P330 Rinse mouth.
P361 Remove / take off immediately all contaminated clothing.
P363 Wash contaminated clothing before reuse.
P403+233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of content / container to an approved waste disposal plant.

HMIS Health Ratings (0-4)

- Health: 2
- Flammability: 0
- Physical: 0

3. COMPOSITION

Additional Names:	Scandium Trifluoride
Percentage:	100 wt%
CAS #:	13709-47-2
EC #:	237-555-4

4. FIRST AID PROCEDURES

General Treatment	Consult a physician. Show this SDS to the doctor in attendance. Move out of dangerous area.
Special Treatment:	Hydrofluoric (HF) acid burns require immediate and specialized first aid and medical treatment. Symptoms may be delayed up to 24 hours depending on the concentration of HF. After decontamination with water, further damage can occur due to penetration / absorption of the fluoride ion. Treatment should be directed towards binding the fluoride ion as well as the effects of exposure. Skin exposures can be treated with a 2.5% calcium gluconate gel repeated until burning ceases. More serious skin exposures may require subcutaneous calcium gluconate except for digital areas until the physician is experienced in this technique, due to the potential for tissue injury from increased pressure. Absorption can readily occur through the subungual areas and should be considered when undergoing decontamination. Prevention of absorption of the fluoride ion in cases of ingestion can be obtained by giving milk, chewable calcium carbonate tablets or milk of magnesia to conscious victims.
Important Symptoms:	Conditions such as hypocalcemia, hypomagnesemia, and cardiac arrhythmias should be monitored for, since they can occur after exposure.
Inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Skin:	Wash off with soap and plenty of water. Take victim immediately to a hospital. Consult a physician. First treatment with Calcium Gluconate paste.
Eyes:	Flush eyes with water as a precaution.

5. FIREFIGHTING MEASURES

Flammability:	Not Flammable.
Special Hazards from Substance:	No Data Available.
Extinguishing Media:	Dry powder.
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Isolate spill area and provide ventilation. Evacuate personnel to safe areas. Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable closed containers for disposal.
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: Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Do not store near acids. Do not store in glass.

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 appropriate exhaust ventilation at places where dust is formed.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	ACGIH	BEI	3.0 mg/g	In urine prior to shift (16 hours after exposure ceases)
	ACGIH	BEI	10.0 mg/g	In urine end of shift (as soon as possible exposure ceases)
	ACGIH	BEI	2 mg/l	In urine prior to shift (16 hours after exposure ceases)
	ACGIH	BEI	3 mg/l	In urine end of shift (as soon as possible exposure ceases)

Threshold Limit Value: (All TWA)	Authority	Basis	Limit	Remarks
	OSHA	OEL	2.50 mg/m ³	USA Occupational Exposure Limit (Table Z-2)
	OSHA	OEL	2.50 mg/m ³	USA Occupational Exposure Limit (air contaminant) (Table Z-1)
	ACGIH	TLV	2.50 mg/m ³	Bone damage. Fluorosis. Substance for which there is a biological exposure index. Not classifiable as human carcinogen.
	California	PEL	2.50 mg/m ³	California permissible exposure limit for chemical contaminants (Title 8, Article 107)

Special Equipment: No Data Available.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to environmental controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protective Gloves: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection: Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Body Protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Color: White

Forms:	Powder or Granules
Odor:	No Data Available.
Water Solubility:	No Data Available.
Boiling Point:	No Data Available.
Melting Point:	> 1,552°C (> 2,826°F)
Flash Point:	No Data Available.
Autoignition Temperature:	No Data Available.
Density:	No Data Available.
Molecular Weight:	101.95 g/mol

10. REACTIVITY

Stability:	Stable under recommended storage conditions.
Reacts with:	Strong reducing agents / glass.
Incompatible Conditions:	Avoid moisture. Reacts dangerously with glass.
Hazardous Decomposition Products:	Hazardous decomposition products from fire include Hydrogen fluoride, Scandium oxide.

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:	
- Eyes	No Data Available.
- Skin	No Data Available.
- Ingestion	No Data Available.
- Inhalation	No Data Available.
- Chronic	Fluoride ion can reduce serum calcium levels possibly causing fatal hypocalcemia. Also may lead to excessive calcification of the bones, ligaments, and tendons.
Signs and Symptoms:	Burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, salivation, abdominal pain, fever, breathing difficulties.
Aggravate Medical Conditions:	No Data Available.
Median Lethal Dose:	No Data Available.
Carcinogen:	IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Scandium trifluoride) IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. 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.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:	No Data Available.
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Persistence and degradability: No Data Available.

Bioaccumulative potential: No Data Available.

Notes: No Data Available.

13. DISPOSAL CONSIDERATIONS

Disposal: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

14. TRANSPORTATION DATA

Hazardous: Hazardous for Transportation

Pictogram:



Hazard Class: 6.1

Packing Group: III

UN Number: 3288

Proper Shipping Name: **DoT:** Toxic solid, inorganic, n.o.s. (Scandium Fluoride)
Reportable Quantity (RQ):
Poison Inhalation Hazard: No

IMDG: TOXIC SOLID, INORGANIC, N.O.S. (Scandium Fluoride)
EMS-No: F-A, S-A

IATA: Toxic solid, inorganic, n.o.s. (Scandium Fluoride)

15. REGULATORY INFORMATION

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 the Ma. Right to Know Act.

Pennsylvania Right to Know Components Scandium Fluoride (CAS No. 13709-47-2).

New Jersey Right to Know Components Scandium Fluoride (CAS No. 13709-47-2).

California Prop. 65 Components This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Copyright 2018 Lorad Chemical Corporation. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. The information in this sheet does not represent a guarantee of the properties of the product. Lorad Chemical Corporation and its Affiliates make no warranty with respect to the accuracy of the information or the suitability of this product for any particular application, and shall not be held liable for any damage resulting from handling or from contact with the above product.

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