



ELECTRONIC SPACE PRODUCTS INTERNATIONAL

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MATERIAL SAFETY DATA SHEET

I PRODUCT IDENTIFICATION

CAS #: 13709-42-7
Trade Name: Neodymium Fluoride
Formula: NdF₃

II HAZARDOUS INGREDIENTS

Percent: 99.95
SARA Title III Hazard Classification: Delayed (Chronic) Health Hazard.
Warning Statements: Inhalation of Dust May Cause Lung Damage.

III PHYSICAL DATA

Boiling Point °F: N/A
°F: 2570
Melting Point
Specific Gravity: 3.8
Density: N/A
Vapor
% Volatiles by Volume: Zero
H₂O: Insoluble
Solubility in

Appearance and Odor: Rose solid (powder)/odorless

IV FIRE AND EXPLOSION HAZARDS DATA

Flash Point (Method used): N/A (solid above 200 °F)
Limits: Upper: N/A **Lower:** N/A
Flammable

Extinguishing Media: Other (specify): Use extinguishing media for surrounding fire.
Special Fire Fighting Procedures: Wear a NIOSH/MSHA approved self-contained breathing apparatus with a full face piece operated in pressure-demand or other positive pressure mode and full protective clothing.

Unusual Fire & Explosion Hazard: Not combustible. Under fire conditions, toxic fumes of hydrogen fluoride are emitted.

V HEALTH HAZARD INFORMATION

Exposure Limits in Air (TLV or suggested control figure): Fluoride compounds ACGIH (TLV): 2.5 mg as F/m³; OSHA (TWA): 2.5 mg (as F)/m³

Effects of Single Over Exposure:

Swallowing: LOW ORAL TOXICITY. For neodymium fluoride, in acute oral toxicity studies, no deaths were observed in rats at 5000 mg/kg.

Skin Absorption: Low Toxicity by Skin Absorption. For neodymium fluoride, in acute dermal toxicity studies no deaths were observed in rats at 2000 mg/kg.

Inhalation: No acute inhalation data available.

Skin Contact: Non-Irritating based on skin irritation data in rabbit for neodymium fluoride.

Eye Contact: Non-Irritating based on eye irritation data in rabbits for neodymium fluoride.

Effects of Repeated Overexposure: Inhalation of dust may cause lung damage.

Carcinogenicity: This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as a probable human carcinogen.

Significant Laboratory Data With Possible Relevance to Man: No additional data found.

Medical Conditions Aggravated by Overexposure: Respiratory diseases.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes using an eyewash fountain. Lift upper and lower lids and rinse well under them. Get medical attention if irritation develops or persists.

SKIN: In case of contact, immediately wash with soap and plenty of water for at least 5 minutes. Remove contaminated clothing and shoes. Thoroughly clean contaminated clothing and shoes before reuse. Get medical attention if irritation develops or persists.

INHALATION: Remove from area of exposure. Get medical attention as needed.

INGESTION: If swallowed and victim is fully conscious, induce vomiting immediately by giving two glasses of water and sticking finger down throat. GET IMMEDIATE MEDICAL ATTENTION.

NOTE TO PHYSICIAN: Treat symptomatically. No specific information found.

VI REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Avoid open flame and moisture.

Incompatibility (Material to Avoid): Strong Acids

Hazardous Decomposition Products or Byproducts: Hydrogen fluoride fumes are emitted on thermal decomposition or when digested in hot mineral acids.

Hazardous Polymerization: Will Not Occur

VII SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material Is Released or Spilled: Wear appropriate protective gear. Sweep up into plastic container. Avoid creating dusting conditions. Ventilate area. Wash spill area after material pickup is complete.

Waste Disposal Method: Dispose of in accordance with Local, State and Federal Waste Disposal Regulations.

VIII SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type): Use a NIOSH/MSHA approved air purifying respirator with appropriate cartridge when TLV exceeded.

Ventilation: Provide adequate ventilation. Use local exhaust under dusting conditions.

Eye Protection: Safety glasses with side shields. DO NOT WEAR CONTACT LENSES.

Protective Clothing: Work uniform, gloves.

Other Protective Equipment: Maintain a sink, safety shower and eyewash fountain in the work area.

IX SPECIAL PRECAUTIONS

Other Handling and Storage Conditions: Store in a cool, dry place in tightly closed containers. Avoid breathing dusts. Avoid direct or prolonged contact with skin and eyes. Wash hands thoroughly after handling. Do not rub eyes with soiled hands. Do not eat, drink or smoke in the work area.

Other Precautions: Dry powders can build static electricity charges when subjected to the friction of conveying, mixing or sliding. To prevent ignition, provide adequate precautions, such as electrical grounding, or inert atmospheres when material is used in the presence of flammable materials.

TSCA Regulatory Status: Product is TSCA certified.

Transportation Status: Not regulated by DOT.

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. ESPI shall not be held liable for any damage resulting from handling or from contact with the above product.

Issued By: S. Dierks

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