

Material Safety Data Sheet

Identity: Yttrium Fluoride
CAS #: 13709-49-4

Formula: YF3

SECTION I - GENERAL INFORMATION

Manufacturer: [Stanford Advanced Materials](#) (SAM)

The information below is believed to be accurate and represents the best information available to SAM. However, SAM makes no warranty, expressed or implied with respect to such information and we assume no liability resulting from its use.

SECTION II - PRODUCT INFORMATION/HAZARDOUS INGREDIENTS

Ingredient: Yttrium Fluoride OSHA: Hazardous Percent: >99

Classification: Delayed (Chronic) Health Hazard
Warning: Inhalation of Dust may cause lung damage.

SECTION III - PHYSICAL DATA

Melting Point (F): 2528 Boiling Point (F): Not available
Vapor Pressure: NA Vapor Density: NA
Solubility in Water: Insoluble Specific Gravity: 4.01
Evaporation Rate: NA % Volatile by Volume: Zero
Appearance/Odor: White Solid (Powder)/Odorless

SECTION IV - FIRE AND EXPLOSION DATA

Flashpoint: N/A Solid above (200°F) Flammable Limits: N/A
Extinguishing Media: Use extinguishing method for surrounding fire.

Special Fire Fighting Procedures: Wear 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 and Explosion Hazards: Not combustible. Under fire conditions, toxic fumes of hydrogen fluoride are emitted.

SECTION V - HEALTH HAZARD DATA

| Chemical Names | AOGTH (TLV) | OSHA (TWA) |
|--------------------|------------------------------|-------------------------------|
| Fluoride Compounds | 2.5 mg (as F)/m ³ | 2.5 mg (as F) /m ³ |
| Yttrium Compounds | 1 mg (as Y)/m ³ | |

Effects of Single Exposure

Swallowing: Low oral toxicity.

Skin Absorption: Low toxicity by skin absorption.

Inhalation: No acute inhalation data available.

Skin Contact: Non-irritating

Eye Contact: Non-irritating.

Effects of Repeated Exposure: Inhalation of dust may cause lung damage. Carcinogenicity:

This product does not contain any ingredient designated by IARC, NTP, AOGIH, or OSHA as a possible human carcinogen.

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

Medical Conditions Aggravated by Overexposure: Respiratory Diseases.

First Aid:

Eyes: Flush eyes with plenty of water for at least 15 minutes using eyewash fountain. Lift upper and lower lids to rinse well under them. Get medical attention if irritation persists.

Skin: Immediately wash with soap and plenty of water for at least 5 minutes. Remove and thoroughly clean clothing and shoes before reuse.

Inhalation: Remove from area of exposure.

Ingestion: If victim is conscious, induce vomiting immediately by giving 2 glasses of water and sticking finger down throat. GET IMMEDIATE MEDICAL ATTENTION.

SECTION VI – REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Open flames and moisture.

Incompatibility: Strong acids.

Hazardous Polymerization: Will not occur

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

SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken if material is released or spilled: Wear appropriate protective gear. Sweep into plastic container. Avoid creating dust. Ventilate area. Wash spill area after material pickup is complete.

Waste disposal Method: Dispose of in accordance with local, state, and federal regulations.

Handling and Storage: 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 work area.

Other: 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.

SECTION VIII – PROTECTIVE EQUIPMENT

Respiratory: NIOSH/MSHA approved dust mask.

Ventilation: Provide adequate ventilation. Use local exhaust as needed to maintain airborne exposure below control limits.

Protective clothing: Work clothing and gloves.

Eye: Safety Glasses with Side Shields. Do not wear contact lenses.

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