



Section 1 - Product Name

Product Name: Samarium Iron Nitride Alloy Powder

Section 2 - Hazardous Ingredients

Chemical Name: SmFeN Powder *Not listed as a hazardous material*

Material/Component(s):

Material or Component	Weight %	CAS No.	ACGUH TLV (mg/m ³)	Notes
-----------------------	----------	---------	--------------------------------	-------

Section 3 - Physical Characteristics

Vapor Pressure: N/A

Vapor Density: N/A

Specific Gravity: N/A

Melting Point: N/A

Evaporation Rate: N/A

Odor: N/A

Solubility in Water: Insoluble

Section 4 - Fire and Explosion Hazard Data

Flash Point: N/A

FLAMMABLE LIMITS: N/A

LEL: N/A

UEL: N/A

Extinguishing Media: Use fine dry sand. Do not use water or any type of chemical extinguisher.

Special Fire Fighting Procedures: As packaged for shipment, under an inert atmosphere, the powder is not flammable. Should the packaging be opened or damaged so as to expose the contents to air, the risk of flammability is increased.

Unusual Fire and Explosion Hazards(s): N/A

Section 5 - Reactivity Data

Stability: N/A

Conditions to Avoid: Fine particle size and elevated temperatures will increase chance of oxidation.



Extreme heat is generated during oxidation, and powder will glow red-hot and create a fire hazard. If exposed to water during oxidation, hydrogen may be released from water.

Incompatibility (Materials to Avoid): Avoid contact with mineral acids, moisture, and long term exposure to air. Reacts violently with halogens.

Hazardous Polymerization: N/A

Hazardous Decomposition or Byproducts : N/A

Section 6 - Health Hazard Data

Health Hazards (Acute & Chronic): N/A

Emergency and First Aid Procedures:

Procedure For	Procedure
---------------	-----------

Section 7 - Precautions for Safe Handling and Use

Spill Procedure: The flammable nature of the powder must be considered in a clean-up operation. Particularly if particle sizes are below 10 microns. Spilled material must be placed in a sealed container. Wear approved protective equipment during the cleanup of powder spills. Collect spills by dry sweeping methods.

Waste Disposal Method: Salvage spilled material profitably for reuse locally or contact the appropriate local authority for guidance on acceptable waste disposal methods.

Precautions to be taken in Handling and Storing: Avoid inhalation of dust and minimize skin contact. No food or smoking when working with the powder. Keep containers tightly closed. Avoid contact with mineral acids, moisture and long-term exposure to air. Store under a dry, inert atmosphere (nitrogen or argon).

Section 8 - Control Measures

Respiratory Protection: Use NIOSH-approved (high efficiency particulate air filter) dust respirators whenever dust levels are encountered.

Eye Protection: Wear safety glasses.

Skin Protection: Wear impervious gloves to prevent skin contact.

Ventilation: Use local exhaust ventilation at the point of dust generation. The potential reactivity of the fine particles that are collected by a dust collection system should be considered when operating these systems.

Work / Hygienic Practices: N/A