



## Section 1 - Product Name

**Product Name:** Sintered Neodymium Iron Boron (NdFeB) Permanent Magnet

## Section 2 - Hazardous Ingredients

**Chemical Name:** Sintered Neodymium Iron Boron (NdFeB) Permanent Magnet

**Material/Component(s):**

Material or Component	Weight %	CAS No.	ACGUH TLV (mg/m <sup>3</sup> )	Notes
Neodymium	33%	7440-00-8	Not Established	
Iron	65%	7439-89-6	10 (oxide)	
Boron	1.3%	7440-42-8	10	test
Nickel	0.01-0.4%	7440-02-0	1 (dust) / 0.1 (fume)	Plating
Copper	0.01-0.2%	7440-50-8	1 (dust) / 0.2 (fume)	Plating
Dysprosium	0-4%	7429-91-6	Not established	May be used in high-temp grades
Cobalt	0-5%	7440-48-4	0.02	May be used in high-temp grades
Praseodymium	0-5%	74410-10-1	Not Established	N/A

## Section 3 - Physical Characteristics

**Vapor Pressure:** (mm Hg.) N/A

**Vapor Density:** (air = 1) N/A

**Specific Gravity:** 7.1 - 7.6

**Melting Point:** Above 1000 Degrees C (1832 Degrees F)

**Evaporation Rate:** N/A

**Odor:** No Odor

**Solubility in Water:** Not Soluble



## Section 4 - Fire and Explosion Hazard Data

**Flash Point:** N/A

**FLAMMABLE LIMITS:** N/A

**LEL:** N/A

**UEL:** N/A

**Extinguishing Media:** Dry Chemicals without Oxygen Compounds or Sand

**Special Fire Fighting Procedures:** Do not use Halon agents or water on smoldering, burning powder.

**Unusual Fire and Explosion Hazards(s):** Dry powders of neodymium magnets will oxidize, smolder, and burn rapidly in the presences of air or oxygen. Maintain powders in water slurry or in inert atmospheres of nitrogen or argon to prevent spontaneous combustion. Magnets may spark on impact. Handle carefully in explosive atmospheres.

## Section 5 - Reactivity Data

**Stability:** Stable

**Conditions to Avoid:** Avoid exposure of powdered magnet material to air, oxygen or halogenated hydrocarbons, and to elevated temperatures above 150 Degrees Celsius.

**Incompatibility (Materials to Avoid):** Fine powders are incompatible with air, oxygen, halogentated hydrocarbons with strong oxidizers

## Section 6 - Health Hazard Data

**Health Hazards (Acute & Chronic):** Prolonged skin contact may cause irritation or allergic dermatitis.

### Emergency and First Aid Procedures:

Procedure For	Procedure
Skin	Brush off powders and wash well with soap and water.
Eyes	Flush with water until clear.

## Section 7 - Precautions for Safe Handling and Use

**Spill Procedure:** Sweep up dust and store in water slurry or sealed containers utilizing inert atmosphere such as argon or nitrogen to prevent spontaneous combustion.

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

## Section 8 - Control Measures



**Respiratory Protection:** Use NIOSH approved respirator when TLV is exceeded.

**Eye Protection:** Use safety glasses or goggles when handling magnets.

**Skin Protection:** Protective gloves are recommended when handling magnetized part or parts which may have sharp edges.

**Ventilation:** Use wet machining/grinding processes and adequate local ventilation to reduce dust levels

**Work / Hygienic Practices:** Use personal protection equipment when required. Use good personal hygiene practices. Keep magnetized parts away from mechanical/electrical instruments which may be damaged by high magnetic fields.

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