

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Code

Liberty

Product Name

Cerium Oxide Polishing Compound

Manufacturer's Name

Ferro Electronic Material Systems
Number

Emergency Telephone Number

216-641-5324 Ferro 24 Hour Information

Address (Number, Street, City, State, and ZIP Code)

1789 Transelco Drive

Telephone Number for Information

315-536-3357

Penn Yan, New York 14527

Date Prepared

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Prepared by

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Section 2. Composition / Information on Ingredients

Component	CAS Registry #	wt. %	ACGIH TLV	Exposure Limits	
				OSHA PEL	
Rare Earth Oxide	68188-83-0	*	10 mg/m ³ Total**	15mg/m ³	
Rare Earth Fluoride	68188-85-2	*	2.5 mg/m ³ as F	2.5mg F/m ³ as F	
Aluminum Silicate	1332-58-7	<40	2 mg/m ³ Resp	10mg/m Total**	

*Combined Rare Earth Oxide/ Rare Earth Fluoride levels are greater than 60%.

Respirable Levels = ** 3mg/m³ ** 5mg/m³

Section 3. Hazards Identification

EMERGENCY OVERVIEW

If caused to dust above the TLV, PEL, or TWA limits, personal protective equipment is required. Read above ingredient limits. Prolonged overexposure to dusts may cause lung damage. Unused product is non hazardous for characteristic toxicity when tested by the EPA TCLP method. This material contains very low levels of naturally occurring radioactive material (NORM). Material is nonflammable and stable.

Potential Health Effects

Eye Contact:

Dust may irritate eyes. Contact with dust or slurry may be abrasive and irritating causing tearing and redness.

Inhalation:

Breathing dust may result in irritation of the nose and throat, coughing, shortness of breath and bronchitis. Existing respirable disorders may be aggravated by exposure.

Skin Contact:

Not absorbed through skin. Dust may be abrasive and mildly irritating.

Ingestion:

All accidental ingestion of dust or slurry may cause irritation of the digestive tract.

Chronic Effects / Carcinogenicity:

Prolonged inhalation / overexposure to dusts may cause irreversible lung damage.

Teratology (Birth Defect) Information:

NA

Reproduction Information:

NA

Section 4. First Aid Measures

Inhalation:

Remove to fresh air; apply artificial respirations as needed. Obtain first aid or medical assistance.

Eye Contact:

Wash with large amounts of water. Obtain first aid or medical assistance if needed.

Avoid rubbing. May cause to scratch eye. Seek medical attention.

Ingestion:

Obtain first aid or medical assistance if needed.

Drink large amounts of water if patient is conscious.

Note to Physician:

Lanthanides, because of their high density, can produce abnormalities on chest x-ray. Lanthanides generally are not felt to be fibrogenic and the lesions typically have little or no clinical significance. However, occasional cases of pneumoconiosis have been reported.

Section 5. Fire Fighting Measures

Flammable Properties:

Flash point: NA

Method Used: NA

Flammable Limits:

LFL: NA

UFL: NA

Extinguishing Media:

NA

Fire and Explosion Hazards:

Not Flammable

No flash point

No fire or explosion hazard.

Fire Fighting Equipment:

Use self-contained breathing apparatus, NOISH approved, to avoid dust or fumes generated during fire fighting efforts.

Section 6. Accidental Release Measures

Spill procedures: Use dustless methods such as a vacuum and place into closable container for disposal, or flush with water. Do not dry sweep. Flush spilled material into suitable retaining areas or containers with water to avoid airborne particulates. Keep upwind of generated dusts during clean up. Wear proper protective equipment.

Section 7. Handling and Storage

Wear proper personal protective equipment.
Avoid contact and breathing dust.
Use in adequate ventilation.
Store in cool, dry location.

Section 8. Exposure Controls / Personal Protection

Engineering Controls:

Handle with adequate local exhaust ventilation for nuisance dust: see OSHA 29 CFR 1910.94 ventilation and CFR 1910.1000 (air contaminants). A source of clean water should be available to flush eyes/skin.

Respiratory Protection:

If airborne concentrations exceed established limits, a NIOSH approved respirator should be worn. In order to limit exposure to NORM, production workers should wear appropriate NIOSH approved dust respirator when conditions are dusty, such as during clean-up and equipment malfunction.

Skin Protection:

Glove recommended.

Eye Protection:

Protection Recommended.

Exposure Guidelines:

See Section 2.

Section 9. Physical and Chemical Properties

Appearance:	White	Molecular Weight:	NF	Specific Gravity:	4.5 – 5.5
Boiling Point:	NA	Odor:	Odorless	Vapor Density:	NA
Evaporation Point:	NA	pH (@ 10% solids):	5.0 – 7.0	Vapor Pressure:	NA
Freezing Point:	NA	Physical State:	powder	Viscosity:	NA
Melting Point:	NA	Solubility in Water:	Insoluble	% Volatile:	NA

Section 10. Stability and Reactivity

Chemical Stability:

Stable

Incompatibility:

NF

Hazardous Decomposition Products:

Hazardous decomposition will not occur.

Hazardous Polymerization:

Hazardous polymerization will not occur.

Section 11. Toxicological Information

The ingredients in this product have not been identified as carcinogens by NTP, IARC, or OSHA.

Section 12. Ecological Information

Not found

Section 13. Disposal Considerations

Dispose in accordance with federal, state, and local regulations.

Section 14. Transport Information (Not meant to be all inclusive)

DOT Shipping Name:	Not a DOT Hazardous Material		
Technical Shipping Name:	NA		
DOT Hazard Class:	NA		
UN / NA Number:	NA		
Product RQ (LBS):	NA		
DOT Label:	NA		
DOT Placard:	NA		
Freight Class Bulk:	NA		
Freight Class Package:	NA		
Product Label:	HMIS 1,0,0,X	“(*)” = Chronic	X = See supervisor for PPE requirements

Section 15. Regulatory Information (Not meant to be all inclusive- see regulation represented)

OSHA Status:

Material contains very low levels of naturally occurring radioactive material (NORM) present in the rare earth raw materials. Chronic Health Hazard under OSHA HazCom Standard 1910.1200.

TSCA Status: Listed in TSCA

CERCLA Reportable: No

SARA Title III:

Section 302 Extremely: No

Section 311/312: Yes – Hazard categories for SARA 311/312 Reporting: Chronic Health

Section 313 Toxic: No – This product contains the following chemicals subject to annual release reporting req.s:

RCRA Status: No

California Proposition 65:

This product contains the following substances known to the state of California to cause cancer and/or reproductive harm:
Radionuclides (cancer)

Section 16. Other Information

NA = Not Applicable

NF = Not Found

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