



MATERIAL SAFETY DATA SHEET

Ferro Corporation
Electronic Material System
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Emergency telephone number
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name: Miramax® GW 5350
Synonyms: Rare Earth Polishing Compound.
CAS-No.: Mixture

Date of Preparation: 10/03/06

2. COMPOSITION/INFORMATION ON INGREDIENTS

Exposure limits

Components	CAS-No	Weight %	OSHA	ACGIH
Kaolin	1332-58-7	50 - 60%	15 mg/m ³ TWA 5 mg/m ³ TWA	2 mg/m ³ TWA
Rare Earth Oxide	68188-83-0	40 - 50%	15 mg/m ³ Total; 5 mg/m ³ Respirable	10 mg/m ³ Total; 3 mg/m ³ Respirable
Fluoride compounds		1 - 5%	2.5 mg/m ³ as F	2.5 mg/m ³ as F

This material contains very low levels of Naturally Occurring Radioactive Material (NORM).

3. HAZARDS IDENTIFICATION

Emergency Overview

Caution

NFPA 704

Color:	White	Health:	1
Physical state:	Powder	Fire:	0
Odour:	Odorless	Instability:	0

Avoid dust formation. May cause physical irritation. This material contains very low levels of Naturally Occurring Radioactive Material (NORM).

Potential Health Effects

Principle routes of exposure: Inhalation, ingestion, skin and eye contact.

Eye contact: May cause slight irritation. Resin particles, like other inert materials, are mechanically irritating to eyes.

Skin contact: Prolonged skin contact may cause skin irritation and/or dermatitis.

Inhalation: Product dust may be irritating to eyes, skin and respiratory system. Over-exposure by inhalation may cause respiratory irritation.

Ingestion: May irritate digestive tract.

Chronic toxicity: No known effects under normal conditions of use. Excessive inhalation of dust may cause chemical pneumonitis, cyanosis, and pulmonary edema.

HMIS

Health: *1

Fire: 0

Physical hazard: 0

PPE: E

4. FIRST AID MEASURES

Eye contact: Rinse immediately with plenty of water, also under the eyelids. Get medical attention if irritation develops.

Skin contact: Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. If symptoms persist, call a physician.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms persist, call a physician.

Ingestion: Drink plenty of water. Consult a physician if necessary. Do not induce vomiting without medical advice.

Notes to physician: Treat symptomatically. 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.

5. FIRE-FIGHTING MEASURES

Flash point: No data available

Suitable extinguishing media: The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Hazardous decomposition products: Thermal decomposition can lead to release of irritating gases and vapors.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH (approved or equivalent) and full protective gear.

Unusual hazards: Dust may form explosive mixture in air.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid dust formation. Evacuate area of all unnecessary personnel. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: Use approved industrial vacuum cleaner for removal. Wear personal protective equipment. Dispose of promptly.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Provide appropriate exhaust ventilation at places where dust is formed. Remove all sources of ignition. Take precautionary measures against static discharges.

Storage: Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures: Ensure adequate ventilation, especially in confined areas.

Respiratory protection: Use NIOSH approved respirator when ventilation is inadequate. Wear NIOSH approved respirator to limit exposure to NORM.

Hand protection: Impervious gloves.

Skin and body protection: Lightweight protective clothing.

Eye protection: Safety glasses with side-shields.

Exposure limits: See Section 2.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	White	Physical state:	Powder
Odour:	Odorless	Molecular weight:	No data available
Boiling point/range (°C):	No data available	pH:	No data available
Melting point/range (°C):	> 2300	Specific gravity (Water =1):	5.400
Vapor pressure (mmHg):	No data available	Evaporation rate (Water =1):	No data available
Water solubility (mg/l):	Slightly	VOC content (%)	No data available

10. STABILITY AND REACTIVITY

Stability: Stable at normal conditions.

polymerization: Will not occur.

Hazardous decomposition products: None under normal use.

Materials to avoid: None known.

Conditions to avoid: None known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

carcinogenic effects:

Not listed by IARC, NTP or OSHA as a carcinogen.

Target Organ Effects:

Aluminium silicate (Kaolin): Respiratory system, stomach.

Rare Earth Oxide

NIOSH - LD50s and LC50s: > 5 g/kg Oral LD50 Rat

12. ECOLOGICAL INFORMATION

No data is available on the product itself.

Persistence and degradability: No information available

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: Waste must be disposed of in accordance with federal, state and local environmental control regulations. Where possible recycling is preferred to disposal or incineration.

14. TRANSPORT INFORMATION

DOT:

Proper shipping name: Not regulated.

TDG (Canada):

Proper shipping name: Not regulated.

15. REGULATORY INFORMATION

U.S. Regulations:

Not subject to the provisions of SARA 313 Title III

Not subject to TSCA 12(b) Export Notification

OSHA Citations - This product contains very low levels of Naturally Occurring Radioactive Material (NORM) present in the rare earth raw materials

State Regulations

This product or its ingredients have been evaluated for New Jersey, Pennsylvania, and California Prop 65 supplier notification requirements. Substances that are subject to notification requirements, if any, are listed below.

Fluoride compounds (1 - 5%)

Cal Prop65: Radionuclides

Rare Earth Oxide (40 - 50%)

Cal Prop65: Radionuclides

Canadian WHMIS

WHMIS hazard class: D2A Very toxic materials.

International Inventories

TSCA 8(b): All the ingredients are on the TSCA list.

Canadian DSL: One or more ingredient(s) are not on the DSL list.

EINECS: One or more ingredients do not appear on EINECS.

Phillipines (PICCS): Not listed.

Japan (ENCS): Not listed.

Korea (KECL): Listed.

China (IECS): Listed.

Australia (AICS): Not listed.

Rare Earth Oxide

Canadian NDSL: Listed

16. OTHER INFORMATION

For Industrial Use Only

Prepared by: Ferro Technical Center

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.

End of Safety Data Sheet