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Electronic Material Systems
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Emergency telephone number
CHEMTREC: 1-800-424-9300
CHEMTREC (outside U.S.): 1-703-527-3887
Phone Number: 1-315-536-3357

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name: 830 Zox® Ce-89 5 Kg Jug **Date of Preparation:** 01/05/2009
Synonyms: Aqueous slurry.
CAS-No.: Mixture
Product Code: 1014826

2. HAZARD IDENTIFICATION**Emergency Overview**

Caution
May cause eye/skin irritation.

NFPA 704

Colour: White	Health: 1
Physical state: Slurry	Fire: 0
Odour: Odorless	Instability: 0

Potential Health Effects

Principle routes of exposure: Eye contact. Skin contact.

Eye contact: May cause slight irritation.

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

Inhalation: Breathing of mists, vapors, or fumes may irritate the nose, throat and lungs.

Ingestion: May irritate digestive tract.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %
Bastnasite	68909-13-7	40 - 50%
Calcium Carbonate	1317-65-3	1 - 5%
Strontium Carbonate	1633-05-2	1 - 5%
Barium sulfate	7727-43-7	1 - 5%
Calcium Sulfate	7778-18-9	1 - 5%

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 (°C): Non combustible

Suitable extinguishing media: 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: None known.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: 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: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Dispose of promptly. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits

Components	OSHA	ACGIH
Bastnasite	2.5 mg/m ³ TWA (as F)	2.5 mg/m ³ TWA (as F)
Calcium Carbonate	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)	10 mg/m ³ TWA
Barium sulfate	15 mg/m ³ TWA (total dust) 5 mg/m ³ TWA (respirable)	10 mg/m ³ TWA
Calcium Sulfate	15 mg/m ³ TWA (total dust) 5 mg/m ³ TWA (respirable)	10 mg/m ³ TWA
Lead Sulfide	Not established	0.05 mg/m ³ TWA as Pb

OSHA particulate (not otherwise regulated) limit: 5 mg/m³ (respirable); 15 mg/m³ (total).

Minimize exposure in accordance with good hygiene practice

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

Eye protection: Safety glasses with side-shields.

Skin and body protection: Lightweight protective clothing.

Hand protection: Impervious gloves.

Respiratory protection: Use NIOSH approved respirator when ventilation is inadequate.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	White	Physical state:	Slurry
Odour:	Odorless	Molecular weight:	No data available
Boiling point/range (°C):	100	pH:	7.8
Melting point/range (°C):	No data available	Specific gravity (Water =1):	1.500
Vapor pressure (mmHg):	No data available	Evaporation Rate (Water = 1)	No data available
Water solubility (mg/l):	No data available	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: Strong oxidizing agents.

Conditions to avoid: None known

11. TOXICOLOGICAL INFORMATION

Acute toxicity: No data is available on the product itself

Component Information Component information, if any, is listed below

Lead Sulfide

50 ug/m³ TWA (as Pb); 30 ug/m³ action level (as Pb); Poison (see 29 CFR 1910.1025)

OSHA - Select Carcinogens: Listed

Bastnasite

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

Calcium Sulfate

LD50s and LC50s: Oral LD50 Rat: >3000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotox statement: No data is available on the product itself.

Aquatic toxicity: Not determined

Persistence and degradability: Not determined

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 (U.S.)

Proper shipping name: Not regulated.

TDG (Canada)

Proper shipping name: Not regulated.

14. TRANSPORT INFORMATION

15. REGULATORY INFORMATION

U.S. Regulations:

Not subject to the provisions of SARA 313 Title III

Not subject to TSCA 12(b) Export Notification

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. This product contains a trace amount of a lead compound (<0.1%) and a very low level of Naturally Occurring Radioactive Material (NORM)..

Components	State Regulations - NJ; PA; CA Prop65
Calcium Carbonate	Listed (NJRTK) Listed (PARTK)
Barium sulfate	Listed (NJRTK) Listed (PARTK)
Calcium Sulfate	Listed (NJRTK) Listed (PARTK)
Lead Sulfide	Listed (NJRTK) Listed (PARTK)
Thorium Phosphate	Radionuclides (Ca Prop 65)

Canadian WHMIS

WHMIS hazard class: D2B Toxic materials.

Canadian Ingredient Disclosure List (IDL): Not Listed.

International Inventories

TSCA 8(b): Listed or exempt.

Canadian DSL: Listed or exempt.

EC-No. Listed or exempt.

Phillipines (PICCS): Listed.

Japan (ENCS): One or more ingredient(s) are not on the ENCS list.

Korea (KECL): Listed.

China (IECS): Listed.

Australia (AICS): Listed.

Components	Canadian NDSL:	ELINCS:
Barium sulfate		EEC No. 444-260-7

16. OTHER INFORMATION

For Industrial Use Only

HMIS

Health: 1

Fire: 0

Physical hazard: 0

PPE: X

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