



MATERIAL SAFETY DATA SHEET

Ferro Corporation, Polymer Additives Division
Cleveland Operation
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Emergency telephone number
CHEMTREC: 1-800-424-9300
CHEMTREC (outside U.S.): 1-703-527-3887
Plant Number: 1-216-531-6010

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

Product Name: Therm-Chek® 6268 150 Lb Drm **Date of Preparation:** 07/20/2010
Chemical Family: Stabilizer
Chemical Name: PVC Powder Stabilizer
CAS-No.: Mixture
Product Code: 1035902

2. HAZARDS IDENTIFICATION

Emergency Overview

Warning
May cause respiratory tract, eye and skin irritation. May cause sensitization by skin contact.

		HMIS	NFPA 704
Color:	White	*2	2
Physical state:	Powder	1	1
Odor:	Mild	0	0
		E	

Potential Health Effects

Principle routes of exposure: Skin contact. Eye contact. Inhalation.
Eye contact: Contact with eyes may cause irritation.
Skin contact: Prolonged skin contact may cause skin irritation. May cause sensitization by skin contact.
Inhalation: Over-exposure by inhalation may cause respiratory irritation.
Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic toxicity: Prolonged skin contact may cause skin irritation and/or dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %
Barium compound		40 - 50%
Calcium compound		20 - 30%
Zinc compound		10 - 20%
Bisphenol A	80-05-7	1 - 5%

The specific chemical identities are being withheld as a trade secret (29CFR1910.1200).

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 removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Call a physician immediately.

Ingestion: Drink plenty of water. Do not induce vomiting. Consult a physician if necessary.

Notes to physician: Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flash point (°C): 260 (500°F) Method: PMCC

Suitable extinguishing media: Use dry chemical, CO2, water spray or "alcohol" foam. Do not use a solid water stream as it may scatter and spread fire.

Hazardous decomposition products: Carbon oxides. BaO, ZnO. CaO.

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: Avoid dust formation. Dust may form explosive mixture in air.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin, eyes and clothing. Remove all sources of ignition. Wear personal protective equipment. Ensure adequate ventilation.

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

Methods for cleaning up: Shovel into suitable container for disposal. Wear personal protective equipment. Clean contaminated surface thoroughly. Dispose of promptly.

7. HANDLING AND STORAGE

Handling: Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin and eyes. Avoid dust formation. Do not breathe vapours/dust.

Storage: Keep containers tightly closed in a cool, well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits
Minimize exposure in accordance with good hygiene practice.

Components	OSHA	ACGIH
Zinc compound	15 mg/m ³ TWA total dust 5 mg/m ³ TWA respirable fraction	10 mg/m ³ TWA
Barium compound	0.5 mg/m ³ TWA Ba	0.5 mg/m ³ TWA Ba
Calcium compound	5 mg/m ³ TWA	2 mg/m ³ TWA

Engineering measures: Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Eye protection: Safety glasses with side-shields.

Skin and body protection: Long sleeved clothing.

Hand protection: Impervious gloves.

Respiratory protection: NIOSH-approved respirators should be worn where engineering controls and work practices do not reduce exposure to or below the PEL.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	White	Physical state:	Powder
Odor:	Mild	Molecular weight:	No data available
Boiling point/range (°C):	No data available	pH:	No data available
Melting point/range (°C):	No data available	Specific gravity (Water =1):	> 1
Vapor pressure (mmHg):	No data available	Water solubility:	Not significant
VOC content (%)	No data available		

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions.
Polymerization	None under normal processing.
Hazardous decomposition products:	Carbon oxides. Heavy metal compounds.
Materials to avoid:	Strong acids and oxidizing agents.
Conditions to avoid	Heat, flames and sparks. Dust may form explosive mixture in air.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Information given is based on data on the components and the toxicology of similar products
Eye irritation:	May cause eye irritation with susceptible persons.
Skin irritation:	May cause skin irritation in susceptible persons.
Sensitization:	May cause sensitization of susceptible persons by skin contact.
Chronic Toxicity:	Prolonged skin contact may cause skin irritation and/or dermatitis.

Component information, if any, is listed below

Calcium compound	
LD50s and LC50s:	Oral LD50 (Rat) = 10000 mg/kg
Bisphenol A	
LD50s and LC50s:	Dermal LD50 (Rabbit) = 3000 mg/kg Oral LD50 (Rat) = 3200 mg/kg
Zinc compound	
LD50s and LC50s:	Dermal LD50 (Rabbit) = 2000 mg/kg Oral LD50 (Rat) = 5000 mg/kg
Barium compound	
LD50s and LC50s:	Oral LD50 (Rat) = 2506 mg/kg

12. ECOLOGICAL INFORMATION

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

Aquatic toxicity: No data is available on the product itself. Information given is based on data on the components and the ecotoxicology of similar products.

Bisphenol A

Ecotoxicity - Fish Species Data:
96 h LC50 (Pimephales promelas) = 3.6-5.4 mg/L flow-through
96 h LC50 (Pimephales promelas) = 4.0-5.5 mg/L static
96 h LC50 (Oncorhynchus mykiss) = 4 mg/L
96 h LC50 (Brachydanio rerio) = 9.9 mg/L static

Bisphenol A

Ecotoxicity - Water Flea Data:
 48 h EC50 (Daphnia magna) = 9.2 - 11.4 mg/L Static
 48 h EC50 (Daphnia magna) = 10.2 mg/L
 48 h EC50 (Daphnia magna) = 3.9 mg/L
 Ecotoxicity - Freshwater Algae Data:
 96 h EC50 (Pseudokirchneriella subcapitata) = 2.5 mg/L

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.

15. REGULATORY INFORMATION

U.S. Regulations:

TSCA: Not subject to TSCA 12(b) Export Notification

SARA 313:

Components	SARA 313:
Barium compound (40 - 50%)	1.0 % de minimis concentration
Zinc compound (10 - 20%)	1.0 % de minimis concentration (Chemical Category N982)
Bisphenol A (1 - 5%)	1.0 % de minimis concentration

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.

Components	State Regulations - NJ; PA
Barium compound	Listed (NJRTK)
	Listed (PARTK)
Zinc compound	Listed (NJRTK)
	Listed (PARTK)
Bisphenol A	Listed (NJRTK)
	Listed (PARTK)
Calcium compound	Listed (NJRTK)
	Listed (PARTK)

Canadian WHMIS

WHMIS hazard class: D2B Toxic materials.

Canadian Ingredient Disclosure List (IDL):

Components	Canada - WHMIS Ingredient Disclosure:
Barium compound	1

Calcium compound	1
Zinc compound	1
Bisphenol A	1

International Inventories

TSCA 8(b):	Listed or exempt.
Canadian DSL:	Listed or exempt.
EC-No.	Listed or exempt.
Philippines (PICCS):	One or more ingredient(s) are not on the PICCS list.
Japan (ENCS):	Listed or exempt.
Korea (KECL):	One or more ingredient(s) are not on the KECL list.
China (IECS):	Listed.
Australia (AICS):	Listed.
New Zealand (NZIoC):	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