



MATERIAL SAFETY DATA SHEET

Ferro Corporation, Polymer Additives Division
 Cleveland Operation
 1000 Wayside Road
 Cleveland, Ohio 44110 USA

Emergency telephone number:
 CHEMTREC: 1-800-424-9300

Plant Number: 1-216-531-6010

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

Product name: Therm-Chek® SP1890 50 LB Date of Preparation: 05/12/2003
DRM
Chemical Family: Polymer Additive
Chemical Name: PVC Powder Stabilizer
CAS-No.: Mixture

2. COMPOSITION/INFORMATION ON INGREDIENTS

Exposure limits

Components	CAS-No	Weight %	OSHA	ACGIH
Pentaerythritol	115-77-5	60 - 70%	15 mg/m ³ TWA (total dust) 5 mg/m ³ TWA (respirable fraction)	10 mg/m ³ TWA
Bisphenol A	80-05-7	10 - 20%	Not applicable	Not applicable
Zinc Compound	RR-00578-7	30 - 40%	Not applicable	Not applicable
Zinc compounds, as Zn	7440-66-6	1 - 5%	Not applicable	Not applicable

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

3. HAZARDS IDENTIFICATION

Emergency Overview

Caution

NFPA 704

Color: White	Health: 1
Physical state: Powder	Fire: 1
Odor: Mild	Instability: 0

May cause irritation of respiratory tract. May cause eye/skin irritation. May cause sensitization by skin contact.

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.

HMIS

Health: *1

Fire: 1

Physical hazard: 0

PPE: E

4. FIRST AID MEASURES

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists, consult a specialist.

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 1 or 2 glasses of water. Consult a physician if necessary.

Notes to physician: Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flash point: 260 °C (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. ZnO.

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. Use personal protective equipment. Remove all sources of ignition.

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

Methods for cleaning up: Shovel into suitable container for disposal. Wear personal protective equipment.

7. HANDLING AND STORAGE

Handling: Use only in area provided with appropriate exhaust ventilation. Keep away from open flames, hot surfaces and sources of ignition. 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

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

Respiratory protection: In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection: Impervious gloves.

Skin and body protection: Long sleeved clothing.

Eye protection: Safety glasses with side-shields.

Exposure limits: See Section 2.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Powder

Color: White

Odor: Mild

pH: No data available

Molecular weight: No data available

Boiling point/range (°C): No data available

Specific gravity (Water =1): > 1.000

Vapor density (Air=1): No data available

Vapor pressure (mmHg): No data available

Evaporation rate (Water =1): No data available

Water solubility: Negligible

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

No data is available on the product itself.

Acute toxicity

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..

Pentaerythritol

NIOSH - LD50s and LC50s:
= 19500 mg/kg Oral LD50 Rat
= 25500 mg/kg Oral LD50 Mouse

Bisphenol A

NIOSH - LD50s and LC50s:
= 2400 mg/kg Oral LD50 Mouse
= 3 mL/kg Dermal LD50 Rabbit
= 3250 mg/kg Oral LD50 Rat

12. ECOLOGICAL INFORMATION

No data is available on the product itself.

Bisphenol A

Ecotoxicity - Fish Species Data: = 4.6 mg/L 96 Hr LC50 fathead minnow (Flow-through)
Ecotoxicity - Water Flea Data: = 10 mg/L 48 Hr EC50 water flea

Aquatic toxicity: No information available.

Persistence and degradability: No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: In accordance with local and national 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:

Bisphenol A (10 - 20%)

SARA 313 - 1.0 percent

Zinc Compound (30 - 40%)

SARA 313 - 1.0 percent

Zinc compounds, as Zn (1 - 5%)

SARA 313 - form R reporting required for 1.0% de minimis concentration (only fume or dust); Chemical Category N982

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.

Pentaerythritol
PARTK: [present]

Bisphenol A
NJRTK: sn 2388
PARTK: environmental hazard

Canada

WHMIS hazard class: D2B Toxic materials .

<u>Components</u>	<u>WHMIS: Ingredient Disclosure:</u>
Bisphenol A	1%; English Item 199; French Item 302

International Inventories

TSCA 8(b): All the ingredients are on the TSCA list.
DSL: All the ingredients are on the DSL.
EINECS: All the ingredients are on the EINECS list.
PICCS: Listed.
ENCS: Listed.
KECL: Listed.
CHINA: Listed.
AICS: Listed.

16. OTHER INFORMATION

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