



## MATERIAL SAFETY DATA SHEET

Ferro Corporation, Polymer Additives Division  
Walton Hills Operation  
7050 Krick Road  
Walton Hills, Ohio 44146-4494 USA

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

Plant Number: 1-216-750-6708

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

**Product Name:** Therm-Chek® 134  
**Chemical Family:** Polymer Additive  
**Chemical Name:** Barium, Zinc Complex Mixture  
**CAS-No.:** Mixture  
**Product code:** 1035425

Date of Preparation: 07/21/2005

### 2. HAZARD IDENTIFICATION

#### Emergency Overview

Caution  
May cause eye/skin irritation. Avoid contact with the skin and the eyes.

NFPA 704

**Colour:** Amber  
**Physical state:** Liquid  
**Odour:** Mild

**Health:** 1  
**Fire:** 1  
**Instability:** 0

#### Potential Health Effects

**Principle routes of exposure:** Eye contact. Skin contact. Inhalation.

**Eye contact:** May cause slight irritation.

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

**Inhalation:** May cause irritation of respiratory tract.

**Ingestion:** May irritate digestive tract.

**Chronic toxicity:** Prolonged skin contact may cause skin irritation and/or dermatitis.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %
Barium compounds		10 - 20%
Zinc compounds		10 - 20%
Mineral Oil	8042-47-5	1 - 5%

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

This material contains organo phosphorous compounds which may decompose from hydrolysis to produce phenol, aliphatic alcohol, and phosphoric acid.

### 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.

Product name: Therm-Chek® 134

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

**Notes to physician:** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Flash point:** 110 °C ( 230°F) Method: PMCC

**Suitable extinguishing media:** Use dry chemical, CO<sub>2</sub>, water spray or "alcohol" foam.

**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. Material may change or decompose on exposure to moisture.

## 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:** Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. 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. In case of insufficient ventilation, wear suitable respiratory equipment.

**Storage:** Keep container tightly closed in a dry and well-ventilated place. Keep containers dry and tightly closed to avoid moisture absorption and contamination.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure limits:

Components	OSHA	ACGIH
Barium compounds, as Ba	0.5 mg/m <sup>3</sup> TWA	0.5 mg/m <sup>3</sup> TWA
Mineral Oil	5 mg/m <sup>3</sup> TWA (mineral oil mist)	5 mg/m <sup>3</sup> TWA (mineral oil mist)
Hydrocarbon based derivative	5 mg/m <sup>3</sup> (oil mist)	5 mg/m <sup>3</sup> (oil mist) TWA 10 mg/m <sup>3</sup> (oil mist) STEL

**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.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice. Ensure that eyewash stations and safety showers are proximal to the work-station location. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Colour:</b>	Amber	<b>Physical state:</b>	Liquid
<b>Odour:</b>	Mild	<b>Molecular weight:</b>	No data available
<b>Boiling point/range (°C):</b>	No data available	<b>pH:</b>	No data available
<b>Specific gravity (Water =1):</b>	1.058	<b>Vapor pressure (mmHg):</b>	No data available
<b>Evaporation rate (Water =1):</b>	< 1.00	<b>Water solubility (mg/l):</b>	Insoluble
<b>VOC content (%)</b>	No data available		

### 10. STABILITY AND REACTIVITY

**Stability:** Stable at normal conditions.

**Polymerization:** Will not occur.

**Hazardous decomposition products:** None under normal use. Possible decomposition products from hydrolysis: phenol, aliphatic alcohol, phosphoric acid.

**Materials to avoid:** Strong oxidizing agents. Strong acids and strong bases. Water.

**Conditions to avoid:** Exposure to moisture.

### 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:** No data is available on the product itself

**Target Organ Effects:** Barium compound: Heart, gastrointestinal tract.

### 12. ECOLOGICAL INFORMATION

**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**

**Proper shipping name:** Not regulated.

**TDG (Canada)**

**Proper shipping name:** Not regulated.

### 15. REGULATORY INFORMATION

**U.S. Regulations:**

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

Components	SARA 313:
Barium compounds (10 - 20%)	1.0% de minimis concentration (Chemical Category N040)
Barium compounds, as Ba (5 - 10%)	1.0% de minimis concentration (Chemical Category N040)
Zinc compounds (10 - 20%)	1.0% de minimis concentration (Chemical Category N982)
Zinc compounds, as Zn (1 - 5%)	1.0% de minimis concentration (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.

Components	NJRTK:	PARTK:	Cal Prop65:
Barium compounds	2146 (1.0%)	Listed	N/A
Triphenyl phosphite	N/A	N/A	N/A
Zinc compounds	3012	Listed	N/A
Barium carbonate	sn 0180	Listed	N/A
Benzoic acid	sn 0209	Listed	N/A
Benzyl alcohol	N/A	Listed	N/A

### Canadian WHMIS

WHMIS hazard class: D2B Toxic materials.

#### Components

Triphenyl phosphite  
Barium carbonate  
Benzoic acid  
Benzyl alcohol

#### WHMIS Ingredient Disclosure:

1%  
0.1%  
1%  
1%

### International Inventories

TSCA 8(b): Listed or exempt.  
Canadian DSL: Listed or exempt.  
EINECS: Listed or exempt.  
Phillipines (PICCS): Not listed.  
Japan (ENCS): Not listed.  
Korea (KECL): Not listed.  
China (IECS): Listed.  
Australia (AICS): Listed.

## 16. OTHER INFORMATION

### For Industrial Use Only

#### HMIS

Health: 1

Fire: 1

Physical hazard: 0

PPE: B

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