FERRO

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® BH536 Tote**

Date of Preparation: 01/09/2004

Chemical Family: Polymer Additive

CAS-No.: Mixture

2. COMPOSITION/INFORMATION ON INGREDIENTS

Exposure limits

Components	CAS-No	Weight %	OSHA	ACGIH
Triphenyl phosphite	101-02-0	10 - 20%	Not established	Not established
Mineral Spirits	64742-47-8	5 - 10%	Not established	200 mg/m³ TWA
2-Ethylhexanoic Acid	149-57-5	1 - 5%	Not established	5 mg/m³ TWA
Zinc compounds, as Zn		1 - 5%	Not established	Not established

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

3. HAZARDS IDENTIFICATION

Emergency Overview

Caution

Color: Amber
Physical state: Liquid
Odor: pungent

NFPA 704

Health: 1
Fire: 1
Instability: 0

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

Potential Health Effects

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

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.

HMIS
Health: 1

Fire: 1
Physical hazard: 0
PPE: B

4. FIRST AID MEASURES

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

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.

5. FIRE-FIGHTING MEASURES

Flash point: 118 °C (244°F) Method: PMCC

Suitable extinguishing media:
Use dry chemical, CO2, water spray or "alcohol" foam.

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

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:
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 (e.g. sand, silica gel, acid binder, universal binder, sawdust). 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

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

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

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

Physical state:	Liquid
Color:	Amber
Odor:	pungent
pH:	No data available
Molecular weight:	No data available
Boiling point/range (°C):	No data available
Specific gravity (Water =1):	0.960
Vapor pressure (mmHg):	No data available
Evaporation rate (Water =1):	< 1.00
Water solubility (mg/l):	Insoluble
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. Possible decomposition products in case of hydrolysis are:. 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

Component Information
Component information, if any, is listed below

2-Ethylhexanoic Acid

NIOSH - LD50s and LC50s:
= 1260 µL/kg Dermal LD50 Rabbit
= 3 g/kg Oral LD50 Rat

Diphenyl isodecyl phosphite

NIOSH - LD50s and LC50s:
= 2370 µL/kg Oral LD50 Rat

Mineral Spirits

ACGIH - Carcinogens: A3 - Animal Carcinogen (as total hydrocarbon vapor)

2,4,6 triisopropylphenol

NIOSH - LD50s and LC50s:
= 1670 mg/kg Oral LD50 Rat

Zinc naphthenate

NIOSH - LD50s and LC50s:
= 2800 mg/kg Oral LD50 Mouse
= 4920 mg/kg Oral LD50 Rat

Triphenyl phosphite

NIOSH - LD50s and LC50s:
= 1080 mg/kg Oral LD50 Mouse
= 444 mg/kg Oral LD50 Rat

12. ECOLOGICAL INFORMATION

Aquatic toxicity:
No information available

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 TSCA 12(b) Export Notification

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

Zinc Compound (10 - 20%)
SARA 313: 1.0 percent 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.
Zinc Compound
NJRTK: 3012
PARTK: Listed

Canadian WHMIS
WHMIS hazard class: D2B Toxic materials.

Components	WHMIS Ingredient Disclosure List:
2-Ethylhexanoic Acid	1%
Triphenyl phosphite	1%

International Inventories
TSCA 8(b): All the ingredients are on the TSCA list.
Canadian DSL: All the ingredients are on the DSL.
EINECS: All the ingredients are on the EINECS list.
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

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