MATERIAL SAFETY DATA SHEET

Ferro Corporation, Polymer Additives Division
Cleveland Operation
1636 Wayside Road
Cleveland, Ohio 44112 USA

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

Plant Number: 1-216-750-7020

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

Product Name: **Therm-Chek® RC545P**
Chemical Family: Polymer Additive
Chemical Name: PVC Powder Stabilizer
CAS-No.: Mixture
Product code: 1330892

Date of Preparation: 03/01/2006

2. HAZARD IDENTIFICATION

Emergency Overview

Caution

Avoid dust formation. May cause eye/skin irritation. May cause irritation of respiratory tract. Dust may form explosive mixture in air. Contains crystalline silica which causes silicosis and lung cancer. May cause sensitization by skin contact.

NFPA 704

Colour:	Off white	**Health:**	1
Physical state:	Powder	**Fire:**	1
Odour:	Mild	**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. May cause sensitization by skin contact.

Inhalation: Product dust may be irritating to eyes, skin and respiratory system. Over-exposure by inhalation may cause respiratory irritation.

Ingestion: May irritate digestive tract.

Chronic toxicity: Excessive inhalation of dust may cause chemical pneumonitis, cyanosis, and pulmonary edema. Long term inhalation causes lung damage (silicosis and cancer). Respirable crystalline silica has been classified as a Group I (sufficient evidence in humans for carcinogenicity) carcinogenic by IARC and is listed by NTP as a substance which may reasonably be anticipated to be a carcinogen.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %
Stearate		5 - 10%
Bisphenol A	80-05-7	1 - 5%
Quartz silica	14808-60-7	0.1 - 0.5%

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. Do not induce vomiting without medical advice. Consult a physician.

Notes to physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash point: Non combustible

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. Heavy metal compounds. 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 dust formation. Evacuate area of all unnecessary personnel. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not breathe vapors/dust.

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: Use approved industrial vacuum cleaner for removal. Wear personal protective equipment. Dispose of promptly.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from open flames, hot surfaces and sources of ignition.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits:

Components	OSHA	ACGIH
Calcium Carbonate	15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)	10 mg/m³ TWA
Quartz silica	30 mg/m³ / (%SiO2 +2) Total Dust 10 mg/m³ / (%SiO2 + 2) Respirable	0.05 mg/m³ TWA (respirable)
Stearate	Not established	10 mg/m³ TWA

Engineering measures: Provide appropriate exhaust ventilation at machinery and at places where dust or fumes can be generated. Ensure adequate ventilation, especially in confined areas.

Eye protection: Safety glasses with side-shields, goggles or face shield as appropriate local conditions.

Skin and body protection: Impervious clothing. Remove and wash contaminated clothing before re-use. Contaminated work clothing should not be allowed out of the workplace.

Hand protection: Impervious gloves.

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

Hygiene measures: Ensure that eyewash stations and safety showers are proximal to the work-station location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	Off white	**Physical state:**	Powder
Odour:	Mild	**Molecular weight:**	No data available
Boiling point/range (°C):	No data available	**pH:**	No data available
Specific gravity (Water =1):	> 1.000	**Vapor pressure (mmHg):**	No data available
Evaporation rate (Water =1):	No data available	**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. Thermal decomposition can lead to release of irritating gases and vapours. Heavy metal compounds. Carbon oxides.

Materials to avoid: Strong oxidizing agents.

Conditions to avoid: Avoid dust formation.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: No data is available on the product itself

Chronic toxicity: Contains crystalline silica which causes silicosis and lung cancer.

Carcinogenic effects: Respirable crystalline silica has been classified as a Group I (sufficient evidence in humans for carcinogenicity) carcinogenic by IARC and is listed by NTP as a substance which may reasonably be anticipated to be a carcinogen. Crystalline silica is also a known cause of silicosis, a non-cancerous lung disease caused by excessive exposure to crystalline silica. Listed by IARC, NTP and OSHA as a carcinogen.

Target Organ Effects: Silica: Respiratory system.

Quartz silica
OSHA - Select Carcinogens: Listed
NTP: Known carcinogen
IARC - Group 1: Monograph 68, 1997 (inhaled in the form of quartz or cristobalite from occupational sources)

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 (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 TSCA 12(b) Export Notification

Components	SARA 313:
Zinc compound (as Zn) (1 - 5%)	1.0% de minimis concentration (Chemical Category N982)
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; CA Prop65
Zinc Compound	Listed (PARTK) Listed (NJRTK)
Bisphenol A	Listed (NJRTK) Listed (PARTK)
Quartz silica	Listed (NJRTK) Carcinogen (Cal Prop 65) Listed (PARTK)

Canadian WHMIS

WHMIS hazard class: D2A Very toxic materials. D2B Toxic materials.

Canadian Ingredient Disclosure List (IDL):

Components	WHMIS Ingredient Disclosure:
Bisphenol A	1%
Quartz silica	1%

International Inventories

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

16. OTHER INFORMATION

For Industrial Use Only

HMIS
Health: *1
Fire: 1
Physical hazard: 0
PPE: E

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

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