

FI-FOIL MATERIAL SAFETY DATA SHEET

Product Name: Reflective Metallized Insulation – Class A
RSBP, RSBP, RDBP, RDBR

Vapour Density: Not applicable
Evaporation Rate: 0.0%
Specific Gravity: Not applicable
Solubility in Water: Insoluble

I. IDENTIFICATION

Product Identification: Flexible cellular plastic film laminated to coated metallized poly layer

Manufacturer: Private labeled and manufactured for Fi-Foil Company Inc., 612 Bridgers Ave. W., P.O. Box 800, Auburndale, FL 33823

Product Information: (863) 965-1846

Product Use: insulation, packaging

WHMIS Classification: Exempt, not a controlled product

White Color film:

Physical State: Solid

Appearance: white

Odour: slight plastic odour

Melting Point: Not applicable

Boiling Range: Not applicable

Vapour Pressure: Not applicable

Vapour Density: Not applicable

Evaporation Rate: Not applicable

Specific Gravity: Not applicable

Solubility in Water: Insoluble

II. INGREDIENTS

-Polyethylene resin
-Antioxidant additive
-Coated Metallized polyester film:
Polyethylene Terephthalate Aluminum
2.0 –3.0 optical density with 100% cured
acrylate coating (Not regulated under SARA313)

White Color Concentrate – Hazardous Ingredients:

<u>Chemical Name</u>	<u>Cas Number</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OTHER</u>
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<u>PERCENT</u>	<u>NTP</u>	<u>IARC</u>	<u>OSHA Prop65</u>	<u>TSCA 313</u>
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Aluminum hydroxide	21645-51-2		10MG/M3	10MG/M3	
Proprietary	N	N	N	Y	N

TWA

Titanium Dioxide	13463-67-7	15MG/M3	10MG/M3	10MG/M3		
Proprietary	N	Y	N	N	Y	N
(Pigment White 6)		TWA	TWA	TWA		

Amorphous Silica	7631-86-9	80MG/M3/	10MG/M3			
Proprietary	N	N	N	N	Y	N
		%/SiO2TWA	8HRTWA			

Components on TSCA list. *Indicates dust and mist.

III. PHYSICAL DATA/CHEMICAL CHARACTERISTICS

Bubble:

Physical State: Solid

Appearance: Clear, White

Odour: Coated film with slight plastic odour

Melting Point: >212°F

Boiling Range: Not applicable

Vapour Pressure: Not applicable

Vapour Density: Not applicable

Evaporation Rate: 0.0%

Specific Gravity: Not applicable

Solubility in Water: Insoluble

Coated Metallized Polyester Film:

Physical State: Solid

Appearance: Silver; Film (Biaxially Oriented)

Odour: Odourless

Density: 1.40g/ml

Melting Point: 492.8°F - 518°F (256°C to 270°C)

Thermal Conductivity: 3.4x10⁻⁴ cal/cm³ – sec. °C

Specific Heat: 1.34 KJ/Kg @ 25 Deg C (plain film)

Heat of Combustion: 23.5 ml/Kg

Burning Speed: 10-12 cm²/min (50 micron, ASTM D 568)

Volatile components: negligible up to 230°C (446°F)

Combustion products: mixture of carbon dioxide, monoxide & acetaldehyde

Boiling Range: Not applicable

Vapour Pressure: Not applicable

IV. FIRE AND EXPLOSION DATA

Bubble:

Conditions of Flammability: Can ignite when in direct contact with an open flame

Autoignition Temperature: >572°F

Flash point: 653°F ASTM

Flammability limits: Not applicable

Fire extinguishing media: CO₂, fog, foam, dry chemical

Fire fighting procedures: Use self- contained breathing apparatus

Unusual fire and explosion hazards: Dense smoke may be emitted when product burns

Coated Metallized Polyester:

Conditions of Flammability: Not Flammable and explosive unless over flash ignition temperature of 927°F (497°C)

Flash Ignition Temperature/ Flash Point: 927°F (497°C)

Flammability limits: Not applicable

Fire extinguishing media: Carbon dioxide or foam type fire extinguishers for small fires. Aqueous foam or water fog for large fires.

Fire fighting procedures: Remove all ignition sources. Use self-contained breathing apparatus and protective clothing.

Unusual fire and explosion hazards: None known

White Film:

Conditions of Flammability: Material will burn as plastic

Autoignition Temperature: Not applicable

Flash point: >300°C (572°F)

Flammability limits: Not known

Fire extinguishing media: Water fog, foam, carbon dioxide, dry chemical

Fire fighting procedures: Use self-contained breathing apparatus and protective clothing.

Unusual fire and explosion hazards: None

V. REACTIVITY DATA

Bubble:

Stability: Under normal conditions – stable

Hazardous polymerization: Will not occur

Conditions/hazards to avoid: Heat, sparks and flames

Materials to avoid: N/A

Hazardous Decomposition Products: Carbon and nitrogen oxides.

Coated Metallized Polyester Film:

Stability: Stable up to 230°C

Hazardous polymerization: Not applicable

Conditions/hazards to avoid: Storage above 38°C

Materials to avoid: None known. Chemically inert.

Hazardous Decomposition Products: Carbon Monoxide, Carbon Dioxide, Acetaldehyde

White Film:

Stability: Stable

Hazardous polymerization: Will not occur

Conditions/hazards to avoid: Temperatures above 288°C (550°F) and contact with strong oxidizing agents

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Materials to avoid: Avoid strong oxidizing agents, acids, and bases

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, arsenic oxides, antimony oxides, hydrogen bromide, oxides of nitrogen, ammonia, hydrogen cyanide, and hydrocarbons can be generated during thermal decomposition and combustion

VI. TOXICOLOGICAL AND HEALTH DATA

Bubble:

Recommended exposure limit: Not applicable

Toxicological data: Not expected to be toxic

Carcinogenicity: Not known to be carcinogenic

Reproductive effects: None known

Mutagenic effects: None known

Synergistic effects: None known

Effects of exposure when:

Inhaled: N/A

Skin contact: May cause dermatitis in sensitive individuals

Eyes: N/A

Ingested: N/A

Acute overexposure: None known

Coated Metallized Polyester:

Recommended exposure limits: N/A

Toxicological data: Chemically no harmful effects when film is handled at temperatures less than to 230°C. Use an organic vapor respirator to prevent vapor inhalation if processing film at temperature greater than 230°C

Carcinogenicity: Not available

Reproductive effects: Not available

Mutagenic effects: Not available

Synergistic effects: Not available

Effects of exposure when:

Inhaled: N/A

Skin Contact: N/A

Eyes: N/A

Ingestion: N/A

Acute overexposure: N/A

White Film:

Recommended exposure limit: Not applicable

Toxicological data: Not expected to be toxic

Carcinogenicity: yes

Reproductive effects: None known

Mutagenic effects: None known

Synergistic effects: None known

Effects of exposure when:

Inhaled: N/A

Skin contact: May cause dermatitis in sensitive individuals

Eyes: N/A

Ingested: N/A

Acute overexposure: None known

VII. PREVENTATIVE MEASURES

Engineering controls: Good general ventilation should be sufficient for most conditions

Respiratory protection: None likely to be needed

Skin protection: Use gloves if required

Eye protection: Use safety goggles if required

Other personal and protective equipment: Safety shoes are recommended

Handling procedures & equipment: Use good industrial practices

Waste disposal: Dispose of product in accordance with local, state and federal regulations regarding solid non-hazardous wastes.

Storage conditions: None

VIII. FIRST AID MEASURES

Inhalation: Remove to fresh air. Seek medical attention

Ingestion: Consult a physician if pain or discomfort occurs.

Eyes: Flush eyes with clean water. Seek medical attention.

Skin: Wash contaminated skin with mild soap and water. Individuals experiencing skin sensitivity should obtain medical advise.

Note to physician: Smoke and hazardous decomposition products in fires involving polyethylene resins can be irritating and may cause pulmonary edema in severely exposed individuals.

IX. SPILL OR LEAK PROCEDURES

In case material is released/spilled, treat/handle as inert material.

Disposal method: Dispose as would with any basically inert material, in accordance with State, Federal & Local regulations.

X. SPECIAL PROTECTION INFORMATION

Ventilation/Local exhaust: Good general ventilation should be sufficient for most conditions (under 230°C). Local exhaust ventilation may be necessary for some operations.

Ventilation/Mechanical (General): Not applicable

Respiratory Protection: None likely to be needed.

Precautions to be taken in handling/storing: No special hazards anticipated under conditions normally encountered in storage, handling, processing, use, or disposal.

MSDS prepared by: Quality Assurance Department

Date: May 20, 2009

While the information contained in this document is believed to be reliable as of the date of issue, such information is general in nature. The material described here can be hazardous if not handled, stored and processed properly. Fi-Foil must rely on the user to use the information supplied here, together with any other information to develop appropriate work and use practices.