Fi-Foil Company, Inc.

Safety Data Sheet

VR Plus Reflective Insulation

Section 1: Identification

Product Name: VR Plus, VR Plus Hi-Perm, VR Plus Tape Tab

Product Identifier: F-VRPLUS16500, F-VRPLUS16500HP, F-VRPLUS16500HPTT, F-VRPLUS16500TT, F-VRPLUS24500, F-VRPLUS24500HP, F-VRPLUS24500HPTT.

Product Use Description: Used to insulate masonry building walls attached to wood or metal furring strips or studs.

Company: Fi-Foil Company, Inc.
PO Box 800, 612 Bridgers Ave. W.
Auburndale, FL 33823
www.FiFoil.com

Company Contact Phone Number: 863-965-1846. For emergency and general information 8:00am to 5:00pm (Eastern Time) Monday-Friday.

Section 2: Hazard(s) Identification

Classifications:
This product is a manufactured article as defined in the OSHA Hazard Communication Standard. During normal use no exposure to the hazardous ingredients occurs. A SDS is not required. This SDS is provided for informational purposes.

HAZARDOUS MATERIAL INFORMATION SYSTEM:(USA)

<table>
<thead>
<tr>
<th>Health</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Hazard</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>X</td>
</tr>
</tbody>
</table>

Precautionary Statements: None

Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>CAS Number</th>
<th>Conc. (%w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Metal</td>
<td>7429-90-5</td>
<td>24-34</td>
</tr>
<tr>
<td>Silicon</td>
<td>7440-21-3</td>
<td>.018-.022</td>
</tr>
<tr>
<td>Iron</td>
<td>7439-89-6</td>
<td>.027-.033</td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
<td>.0036-.0044</td>
</tr>
</tbody>
</table>
### INGREDIENT NAME | CAS Number | Conc. (%w/w)  
--- | --- | ---  
Manganese | 7439-96-5 | .0036-.0044  
Magnesium | 7439-95-4 | .0036-.0044  
Chromium | 7440-47-3 | .0018-.0022  
Zinc | 7440-66-6 | .0018-.0022  
Vanadium | 7440-62-2 | .0009-.0011  
Titanium | 7440-32-6 | .00014-.0017  
Aluminum Oxide, fibrous | 1344-28-1 | 0.32-0.97  
Paraffin wax, hydrocarbon wax | 8002-74-2 | 0.16-0.32  
Cellulose | 9004-34-6 | 6-12  
Yarn | Proprietary | 1-5  
Antimony Oxide | Proprietary | <1  

Antimony Trioxide is inextricable bound within the polymer matrix of this product and not considered a hazardous chemical under the OSHA Standard (29 CFR 1910.1200) per (b)(2).  
The specific identity and/or exact percentage(concentration) of composition has been withheld as a trade secret. 

**Product Components:** Bleached Kraft(BK) paper with Polyethylene coating, Recycled Natural Kraft (NK)Paper, aluminum metal, hot melt adhesive, adhesive tape. 

### Section 4: First-Aid Measures 

**Eye Contact:** If eye contact occurs with molten material immediately cool with water. Do not remove adhesive. Seek medical attention. 

**Skin Contact:** Wash exposed skin with soap and water. Molten adhesive may cause severe burns. Cool melted product on skin with plenty of water. Do not remove solidified product. No attempt should made to remove material from skin or to remove contaminated clothing as damaged skin can be easily torn. Cover affected areas either clean sheeting or gauze and seek immediate medical attention. 

**Inhalation:** Not a likely route of exposure. 

**Ingestion:** Ingestion of solid adhesive is not expected to be hazardous. If symptoms develop and persist, get medical attention. 

**Notes to Physician:** Symptomatic and supportive therapy as needed. 

### Section 5: Fire-Fighting Measures 

**Flash Point:** solid not applicable 

**Fire and Expulsion Hazards:** None 

**Extinguishing Media:** Use extinguishing measures appropriate to local circumstances and the surrounding environment; water, foam, dry chemical, CO2. 

**Hazardous Decomposition Products:** Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Fire Fighting Procedures: Wear positive pressure self-contained breathing apparatus (SCBA). Wear full protective equipment.

Further Information: NFPA Hazzard Code

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Special Hazzard</td>
<td>None</td>
</tr>
</tbody>
</table>

0= Minimal  1= Slight  2=Moderate  3= High  4= Extreme

Section 6: Accidental Release Measures

Personnel Precautions: None due to material form.

Environmental Precautions: None due to material form.

Methods of Cleaning Up: None due to material form.

Section 7: Handling and Storage

Precautions for Safe Handling: Avoid skin contact with molten resins.

Conditions for Safe Storage, Including Incompatibilities: Rolls may telescope. Plastic packaging materials can pick up a static charge. Rolls packaged with shrink wrap or other plastic over wrap should be opened or unwrapped only in non-process areas where ignition sources such as solvents are not in use or in storage.

Store away from heat and sources of ignition. Do not store outside or in direct sunlight. Avoid exposure to oxidizing agents. Recommended storage temperatures are 20F to 100F.

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Cellulose</td>
<td>10 mg/m³ TWA ACGIH TLV, 15 mg/m³ TWA OSHA PEL (total dust), 5 mg/m³ TWA (respirable fraction)</td>
</tr>
<tr>
<td>Yarn</td>
<td>None Established</td>
</tr>
<tr>
<td>Aluminum</td>
<td>1 mg/me TWA ACGIH TLV(respirable), 15 mg/m³ TWA OSHA PEL (total dust), 5 mg/m³ TWA (respirable fraction)</td>
</tr>
<tr>
<td>Antimony Trioxide</td>
<td>0.5 mg/m³ TWA ACGIH TLV 0.5 mg/m³ TWA OSHA PEL</td>
</tr>
</tbody>
</table>

Engineering Measure: Work should be done in an adequately ventilated area (i.e., ventilation sufficient to maintain concentrations below one half of the PEL and other relevant standards). Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination.

Eye Protection: Safety glasses with side shields or safety goggles are recommended for cutting and other operations where particle may be generated.

Hand Protection: Use impermeable gloves while handling material during installation, removal or disposal. Wash hands thoroughly before eating or handling foods.
Respiratory Protection: No personal respiratory protective equipment normally required. Where the potential exists for exposure to decomposition products due to heating or elevated temperatures, wear NIOSH approved respiratory protection as appropriate.

Work/Hygiene Practices: Installation sites might require safety considerations such as working in attics or confined spaces. Make sure there is sufficient ventilation. Wear hard hat where there the potential for injury due to exposed nails or other such hazards in the area where the product is being installed.

Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>White/Foil</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Solid not applicable</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Solid Not Applicable</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Flammability</td>
<td>ASTM E84-E2599 Class I (or A)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Solid not applicable</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Unknown</td>
</tr>
<tr>
<td>Auto Ignition Temperature</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Section 10: Stability and Reactivity

Chemical Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: None

Hazardous Decomposition or By-Products: Thermal decomposition can lead to release of irritation gases and vapors, carbon monoxide, carbon dioxide.

Incompatible Materials: exposure to oxidizing agents

Conditions to Avoid: Direct sunlight and moisture, direct heat and open flames.

Section 11: Toxicological Information

Primary route(s) of Exposure: Skin contact

Inhalation: Unlikely to occur under recommended storage conditions.

Skin Contact: Some individuals may experience skin sensitivity or minor irritation due to paper and polyethylene dust residue, oil on aluminum or film additives. Molten adhesive may cause severe burns.

Eye Contact: Molten adhesive may be irritating to eyes.

Ingestion: Non-hazardous.

Chronic Effects: No data available.

Carcinogenicity: The ingredients of the product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogen by NTP. Antimony Trioxide is listed by IARC as a 2B
Carcinogen (probably carcinogenic to humans). However, antimony trioxide is inextricably bound in the product matrix and no exposure will occur. No other ingredients are listed by IARC, NTP, OSHA, or the EU CLP.

**Acute Toxicity Values:** Aluminum: Oral rat LD50 > 15900 mg/kg, inhalation rat LC50 > 0.888 mg/L.

**Mutagenicity:** No applicable data.

**Reproductive Effects:** No applicable data.

**Teratogenicity and Fetotoxicity:** No applicable data.

**Section 12: Ecological Information**

**Ecotoxicity:** Aluminum: Lepomis cyanellus NOEC > 50 mg/L/96hr. This product is not expected to present an environmental hazard.

**Persistence and Degradability:** No data available.

**Bio-accumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other Adverse Effects:** None known.

**Section 13: Disposal Considerations**

Dispose of in accordance with existing federal, state and local environmental control regulations. This material is not a hazardous waste under RCRA CFR261 when disposed of in its purchased form.

**Section 14: Transport Information**

**FDOT:** Non-Regulated

**IMDG/IMO:** Non-Regulated

**ICAO/IATA:** Non-Regulated

**Reportable Quantity(RQ):** Non-Regulated

**Section 15: Regulatory Information**

**CERCLA:** This product is not subject to CERCLA reporting requirement. Many states have more stringent release reporting requirements. Report spills required under applicable federal, state and local regulations.

**SARA 302 Extremely Hazardous Substances:** None

**SARA Hazard Category (311/312):** Not Applicable (manufactured articles).
SARA 313 Information: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

<table>
<thead>
<tr>
<th>Components</th>
<th>C.A.S. #</th>
<th>WT %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum (reportable as dust or fume only)</td>
<td>7429-90-5</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

California Proposition 65
This product contains the following chemical known to the State of California to cause cancer or reproductive toxicity (birth defects):

<table>
<thead>
<tr>
<th>Components</th>
<th>C.A.S. #</th>
<th>WT %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony Trioxide</td>
<td>1309-64-4</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

EPA TSCA (Toxic Substance Control Act): All components are either listed or exempt from TSCA

Section 16: Other Information
Published Date: February 21, 2018
Revision: Rev.20180221
Reasons for Revisions: New Format

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge. The information given is designed only as a guide for safe handling, use, installation, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. Fi-Foil Company, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.