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## Material Safety Data Sheet

### I. PRODUCT IDENTIFICATION

Trade Name: *Excel M Series*<sup>®</sup>  
Description: Laminated Vinyl – Synthetic Fabric  
Manufacturer: **Herculite Products, Incorporated**

### II. PHYSICAL DATA

Appearance: Laminated Vinyl – Synthetic Fabric  
Boiling Pt: >500°F  
Melting Pt: 370°F (approx)  
Sp. Gravity: 1.80 – 2.04 (approx)  
Odor: Light plastic to none  
Volatiles (% by Volume): 25 (approx @ high temperature only)  
Rate of Evaporation (Butyl Acetate = 1): 0 (approx @ ambient temperature only)

Vapor Pressure (@392°F): > 1.1 mmHg  
Vapor Density (Air = 1): > 10  
Solubility in H<sub>2</sub>O (% by wt): < 0.005

### III. INGREDIENTS

The precise composition of this product is *proprietary*. While several of its components in pure form could be considered hazardous, as a compound none are significantly hazardous (due to dilution, encapsulation, etc.). Under combustible conditions, toxic gases to include hydrogen chloride (HCl) and phthalic anhydride are generated. Various pigment colored systems may contain small levels of lead chromate yellow and molybdate orange.

Other:

Barium (Ba) <500 ppm    Cadmium (Cd) <500 ppm    Zinc (Zn) <500 ppm

\*Antimony Oxides <5%    \*\* 10,10' oxydi-phenoxarsine <1%

\*Present as flame retardants.

\*\*Antimicrobial Agent (oral LD<sub>50</sub> = 1231 – 2000 mg/kg)

### IV. HEALTH HAZARD INFORMATION

The only significant hazards from this product arise under conditions of combustion or elevated temperatures (approx. 250°F and above) creating elevated gases and vapors to include hydrogen chloride, phthalic anhydride, oxides of carbon and minute amounts of vapor – phase heavy metals, to include cadmium, antimony, lead, chromium, molybdenum and barium (in combustion, nylon-containing styles evolve hydrogen cyanide). At higher temperatures (approx. 600 °F and above) decomposition will generate the release of Hydrogen Fluoride. In case of exposure to combustion gases remove individual to fresh air, flush eyes and accessible mucous membranes with water. If individual experience difficulty breathing or burning sensation in chest, consult physician. Individual sensitivities and/or allergic nature and/or behaviors cannot be predicted.

**V. REACTIVITY DATA**

Product is stable at normal use and temperature, but may liberate Hydrochloride gas (HCl) at temperatures 250 °F – 400 °F, depending on exposure time frame. Under pyrolysis conditions product may liberate HCl and HCN (HCN in nylon-containing styles only). Hazardous polymerization will not occur.

**VI. SPILL or LEAK PROCEDURES**

No spill or leak hazards. Place scrap in landfill – consult local and Federal regulatory.

**VII. SPECIAL PROTECTION**

Heat processing areas should be well ventilated with no other special protection required except under conditions of fire or elevated temperatures 250 °F. Under such conditions, eye, skin and respiratory personal protective equipment is advised.

**VIII. TRANSPORTATION INFORMATION**

National Motor Freight Classification (NMFC) 49210, Class 65, Flash Point 450 °F.

**IX. STORAGE PRECAUTIONS**

Store in atmosphere temperature range: - 40 °F – 150 °F.

**X. DISCLAIMER**

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