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**SECTION 1: IDENTIFICATION**

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**PRODUCT NAME:** Polyurethane Coated or Uncoated Pultrusion

**SYNONYMS:** Thermoset FRP (Fiber Reinforced Plastic) pultrusion, uncoated product

**PRODUCT CODES:** N/A

**CHEMICAL FAMILY:** Glass reinforced thermoset plastics

**MANUFACTURER:** **Marvin Composites**

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**SECTION 2: HAZARDS IDENTIFICATION**

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This material is not classified as hazardous according to the U.S. Hazard Communication Standard. There are no health hazards when being exposed to or handling the product in its manufactured form. Special precautions need to be taken when additional operations are performed on this product that cause dust to be generated. This dust may cause skin, eye, and respiratory irritation. Special precautions need to be taken if this material is heated due to the potential for decomposition products. See Section 8 for personal protection guidelines and maximum exposure limits.

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

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**INGREDIENT:** Pultrusions are solid forms composed of polyurethane resin and fibrous glass. These raw materials are combined with both heat and pressure to produce a stable, solid material that is non-hazardous when handled or processed in accordance with good manufacturing and industrial hygiene practices.

Specific chemical identity and exact percentage of composition has been withheld as a trade secret.

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**SECTION 4: FIRST-AID MEASURES**

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If irritation of below areas are caused by dust while fabricating, cutting, or drilling product follow these procedures:

**EYES:** Flush with running water for 15 minutes or more.

**SKIN:** Remove contaminated clothing, wash skin with warm water and soap, skin cream may be helpful. If the fiberglass becomes embedded seek medical attention.

**INGESTION:** Do not induce vomiting; seek medical attention.

**INHALATION:** Remove from source of exposure into fresh air. Ensure clear airway. Seek medical attention.

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**SECTION 5: FIRE-FIGHTING MEASURES**

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**FLAMMABLE LIMITS IN AIR:** Combustible. Avoid dust formation; can form explosive dust/air mixture.

**FLASH POINT:** N/A

**AUTOIGNITION TEMPERATURE:**

**F:** 978.8°

**C:** 526°

**EXTINGUISHING MEDIA:** Water, CO<sub>2</sub>, dry chemical such as NFPA Class A fire extinguisher

**FIRE FIGHTING PROCEDURES:** Self-contained breathing apparatus for large scale or sustained fires should be used.

**HAZARDOUS DECOMPOSITION PRODUCTS:** hydrocarbons, carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke, depending upon product formulation may contain trace amounts of diphenylmethane diisocyanate (MDI), 4,4' - Methylene dianiline (MDA), NO<sub>2</sub> and hydrogen cyanide.

**SECTION 5 NOTES:** Avoid ignition sources when cutting the material and/or around dust accumulations.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**ACCIDENTAL RELEASE MEASURES:** Not applicable. (When moving product, gloves, steel-toed boots and protective eyewear are recommended.)

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**SECTION 7: HANDLING AND STORAGE**

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**HANDLING AND STORAGE:** Store away from open flame.

**HOUSEKEEPING:** Avoid dust accumulations at or in excess of 1/32 inch; practice proper housekeeping procedures by utilizing an explosion proof vacuum or natural bristle brush with a non-sparking/non-conductive dust pan. Do not use compressed air for cleaning. Wash thoroughly after handling.

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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OSHA PEL TWA -Total Dust	15 mg/m <sup>3</sup>	
OSHA PEL TWA - Respirable Particulate	5 mg/m <sup>3</sup>	
OSHA PEL CEILING TWA - MDI	CAS# 101-68-8	0.02 ppm
NIOSH REL TWA – MDI	CAS# 101-68-8	0.005 ppm
NIOSH REL CEILING – MDI	CAS# 101-68-8	0.02 ppm
ACGIH TLV TWA – MDI	CAS# 101-68-8	0.005 ppm
OSHA PEL TWA - MDA	CAS# 101-77-9	0.01 ppm
OSHA PEL STEL - MDA	CAS# 101-77-9	0.1 ppm
ACGIH PEL TWA – MDA	CAS# 101-77-9	0.1 ppm

**EXPOSURE GUIDELINES:**

Fabricating, cutting, drilling, etc. of thermoset plastics may produce dust, which should be controlled. Particulate level should not exceed the following OSHA (Occupational Safety and Health Administration) standard.

**RESPIRATORY PROTECTION:** Use adequate ventilation to control dust when machining, cutting, drilling, etc. Dust masks may be used to prevent inhalation of airborne dust. If the amount of dust exceeds the exposure level then respirators must be worn. Use NIOSH (National Institute for Safety and Health) approved dust mask or filtering facepiece.

**EYE PROTECTION:** Use goggles or safety glasses when machining, cutting, drilling, etc. Have eyewashes available.

**SKIN PROTECTION:** Wear protective gloves, long pants and long sleeves when machining, cutting, drilling, etc. or use barrier cream if long sleeves are impractical. Wash skin with soap and water after handling. Wash dusty work clothes separately.

**DECOMPOSITION EXPOSURE:** Exposure to heat from fire, dull cutting tools, ovens or other heat sources may cause decomposition of the material. Decomposition of the material can release harmful gases such as those described in the fire and explosion data section. Exposure to these gases can cause respiratory irritation and asthma-like symptoms.

Some amounts of harmful decomposition products may form below 450 degrees F. especially if the material is held at temperature for an extended period of time. The amount of decomposition products formed will increase as the temperature increases.

Harmful decomposition products will form at or above 450 degrees F.

Industrial hygiene monitoring should be performed to determine the appropriate level of exposure for each application and the appropriate controls implemented.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**ODOR:** No Significant Odor

**PHYSICAL STATE:** Solid

**pH AS SUPPLIED:** N/A

**BOILING POINT:** N/A

**MELTING POINT:** N/A

**FREEZING POINT:** N/A

**VAPOR PRESSURE (mmHg):** N/A

**VAPOR DENSITY (AIR = 1):** N/A

**SPECIFIC GRAVITY (H<sub>2</sub>O = 1):** 2.1 ± 0.1

**EVAPORATION RATE:** N/A

**SOLUBILITY IN WATER:** Insoluble

**PERCENT VOLATILE:** N/A

**SECTION 10: STABILITY AND REACTIVITY**

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**STABILITY:** Stable. Hazardous polymerization will not occur.

**CONDITIONS TO AVOID (STABILITY):** N/A

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** See information in Fire Fighting Measures section above.

**SECTION 11: TOXICOLOGICAL INFORMATION**

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**TOXICOLOGICAL INFORMATION:** Exposure to dust in excess of PEL (permissible exposure limit over an 8-hour period) may result in skin or upper respiratory tract irritation. Pre-existing skin or respiratory disorders may cause more susceptibility to these effects.

**CARCINOGENICITY STATUS:** Not listed by International Agency for Research of Cancer (INARC), National Toxicology Program (NTP), or OSHA.

**SECTION 12: ECOLOGICAL INFORMATION**

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Information Not Available

**SECTION 13: DISPOSAL CONSIDERATIONS**

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**WASTE DISPOSAL METHOD:** Dispose of as solid waste in compliance with all applicable local, state and federal regulations.

**SECTION 14: TRANSPORT INFORMATION**

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N/A

**SECTION 15: REGULATORY INFORMATION**

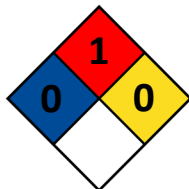
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N/A

**SECTION 16: OTHER INFORMATION**

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NFPA Hazard Classification:



*The above is accurate to the best of our knowledge. However, since data, safety standards and government regulations are subject to change, and the condition for use or misuse are beyond our control, Marvin Composites makes no warranty, either express or implied, about the completeness or continuing accuracy of the information contained herein, and disclaims all liability for reliance thereon. User should be satisfied that he/she has all current data relevant to his /her particular use.*