



**MATERIAL SAFETY DATA SHEET**  
**Fibron® Horizon Plus Series Guardrail Systems**  
**MSDS – Black, Brick, Bronze, Sand, Slate and White**

**1.) PRODUCT AND COMPANY IDENTIFICATION**

Approval Date: 08/02/10

PRODUCT NAME: Fibron® Horizon Plus Series Guardrail Systems

SUPPLIER: Fiber Composites, LLC  
 181 Random Drive  
 New London, NC 28127

24 HOUR EMERGENCY: 704 -948-0240

PRODUCT AND MSDS INFORMATION: 704 -463-7120

**2.) COMPOSITION / INFORMATION ON INGREDIENTS**

CHEMICAL NAMES AND SYNONYMS:

- 1.) WOOD FIBER, WOOD DUST OR WOOD FLOUR
- 2.) POLYVINYL CHLORIDE

INGREDIENTS CONSIDERED TO BE HAZARDOUS TO HEALTH:

<u>SUBSTANCE NAME</u>	<u>WEIGHT PERCENTAGE</u>
WOOD FIBER DUST	10 - 25 %

NOTE: WOOD FIBER IS CONTAINED IN A POLYVINYL CHLORIDE MATRIX. POLYVINYL CHLORIDE IS A THERMOPLASTIC MATERIAL. THIS MIXTURE CONTAINS PREDOMINANTLY WOOD FIBER AND POLYVINYL CHLORIDE. THE POLYVINYL CHLORIDE CAN BE SOURCED AS VIRGIN OR REGRIND (RECYCLED) MATERIALS. THE STANDARD PRODUCT IS APPROXIMATELY 75-90% THERMOPLASTIC AND 25 -10 % WOOD FIBER, RESPECTIVELY. IN ADDITION, THE EXTRUDED PROFILE (GUARDRAIL COMPONENTS) ARE COVERED IN A PREDOMINATELY POLYVINYL CHLORIDE CAP STOCK.

THIS PRODUCT IS PREDOMINATELY POLYVINYL CHLORIDE, A SUBSTANCE NOT CONSIDERED TO BE A HAZARDOUS CHEMICAL BASED ON EVALUATIONS MADE BY OUR COMPANY UNDER THE OSHA HAZARD COMMUNICATION STANDARD, 29 C.F.R. & 1910.1200.

See Section 8 for exposure limits (if applicable).

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**3.) HAZARDS IDENTIFICATION**

UNITED STATES OF AMERICA OSHA HAZARD COMMUNICATION STANDARD: This product may be used in applications that produce wood dust fibers. According to OSHA CFR 1910.1200, certain wood fibers are considered hazardous if the workplace airborne concentration exceeds the OSHA or ACGIH exposure limits (See section 8).

EMERGENCY RESPONSE DATA: Light gray solid. Exposure to fire can generate toxic fumes. High dust levels may create potential for explosion. DOT ERG No. – NA

**4.) FIRST AID MEASURES**

If symptoms occur, remove affected individual from the area. Wash or flush affected areas thoroughly with flowing water for 15 minutes. Wash skin with mild soap and water. If irritation persists, seek medical attention.

Symptoms and signs of exposure are nausea, discomfort, headache, dizziness, eye, skin and respiratory tract irritation.

EYE CONTACT: Exposure to dust may cause irritation of eyes. Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Exposure to dust may cause irritation of the skin. Wash contact areas with soap and water. Launder contaminated clothing before reuse. If a rash, persistent irritation or dermatitis occurs, get medical advice before returning to work.

INHALATION: If respiratory irritation, cough shortness of breath, wheezing or chest tightness occurs after exposure to dust, remove from further exposure, seek immediate medical assistance and call for a physician. Inhalation may cause nausea, discomfort and central nervous system effects.

INGESTION: Not expected to be a problem when ingested in small quantities. If uncomfortable, seek medical assistance.

**5.) FIRE-FIGHTING MEASURES**

EXTINGUISHING MEDIA: Water and ABC dry chemical

SPECIAL FIRE FIGHTING PROCEDURES: Use water to keep fire-exposed product cool. For fires in enclosed area, fire fighters must use self-contained breathing apparatus.

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---

**SPECIAL PROTECTIVE EQUIPMENT:** For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Exposure to fire can generate toxic fumes. This product evolves hydrogen chloride, carbon monoxide and small amounts of various hydrocarbons when burned. Carbon monoxide and carbon dioxide are asphyxiates and hydrogen chloride is an irritant and corrosive. High dust levels may create potential for explosion.

Flash Point: 735° F  
Flame Spread Index: NA  
Flammable Limits – LEL: NA  
Flammable Limits – UEL: NA

NFPA HAZARD ID:      Health: 0      Flammability: 1      Reactivity: 0.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Smoke, Carbon Monoxide, Carbon Dioxide, Aldehydes, Organic gases, Hydrogen Chloride and other hydrocarbons.

**6.) ACCIDENTAL RELEASE MEASURES**

**NOTIFICATION PROCEDURE:** None

**PROCEDURES IF MATERIAL IS RELEASED OR SPILLED:** Where dusty conditions are created as a result of cutting or sawing, wet down material then sweep or vacuum for disposal. Personnel performing cleanup must use protective equipment.

**ENVIRONMENTAL PRECAUTIONS:** Not expected to be a problem.

**PERSONAL PRECAUTIONS:** See Section 8.

**7.) HANDLING AND STORAGE**

**HANDLING:** fiberon® Horizon Plus Series Guardrail Systems are not intended for load-bearing or heavy structural applications. Please consult Fiber Composites' literature for proper usage. The density of fiberon® Horizon Plus Series Guardrail Systems material is heavier as compared to most traditional lumber products. Therefore, the user must employ proper handling to prevent damage or injury.

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**STORAGE:** Store fiberon® Horizon Plus Series Guardrail Systems away from strong oxidizing agents or combustible material.

**INHALATION:** Inhalation of dust should be avoided. Exercise care when dumping bags, sweeping, mixing or performing other tasks that might create dust.

**8.) EXPOSURE CONTROLS / PERSONAL PROTECTION**

**VENTILATION:** Use and work in a well-ventilated area.

**RESPIRATORY PROTECTION:** Approved dust respirators must be used for dusty conditions or if breathing of dusts is probable. Wear NIOSH/MSHA approved dust/mist respirators when large amounts of dust may occur.

**EYE PROTECTION:** Safety glasses with side shields or goggles should be worn to protect against dust particles in the air.

**SKIN PROTECTION:** No special equipment required. Good personal hygiene should be followed.

**PROTECTIVE GLOVES:** Wear protective gloves if handling hot material.

<u>SUBSTANCE NAME</u>	<u>SOURCE</u> (Agency)	<u>TWA</u> (ppm mg / m <sup>3</sup> )	<u>STEL</u> (ppm mg / m <sup>3</sup> )
Wood Fiber Dust			
Hardwood	OSHA	5	
Softwood	OSHA	5	
Oak Hardwood	ACGIH	1	
Softwood	ACGIH		10
Vinyl Chloride Monomer	OSHA	1ppm / 8 hr	
Vinyl Chloride Monomer	ACGIH -TLV	5 ppm	
Titanium Dioxide	OSHA	15 mg/cm	
Titanium Dioxide	ACGIH – TLV	10 mg/cm	
Calcium Carbonate	OSHA	15 mg/cm	
Calcium Carbonate	ACGIH – TLV	15 mg/cm	

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Organotin Compound	OSHA	0.1 mg/m <sup>3</sup>
Organotin Compound	OACGIH - TLV	0.1 mg/m <sup>3</sup>

NOTE: Limits as displayed are for guidance only. Follow application regulations.

**9.) PHYSICAL AND CHEMICAL PROPERTIES**

Physical properties are given which are considered representative. For specific physical properties refer to the Product Data Sheet.

APPEARANCE:	Solid
COLOR:	White, Gray and Almond which changes with time.
ODOR:	None
PH VALUE:	NA
BOILING POINT:	NA
MELTING POINT:	approximately 130 C
FLASH POINT:	393 C
SELF-IGNITION:	406 C
BURN RATE:	Unable to maintain self sustaining burn
SELF-IGNITION:	437 C
SMOKE DENSITY	821.7
DENSITY	>1.4 g/cm <sup>3</sup>
WATER ABSORPTION:	.5% by weight
COEF. OF MOISTURE EXPANSION:	.61 % by thickness
WATER SOLUBILITY:	Negligible
FUNGUS RESISTANCE:	No Decay
TERMITE RESISTANCE:	Light Attack Rating = 9.6 (10 Max)
COEF OF THERMAL EXPANSION:	4.0 x 10 <sup>-5</sup> (1/C)
VAPOR DENSITY:	NE
EVAPORATION RATE:	NE
POUR POINT:	NA
FREEZING POINT:	NE
VOLATILE ORGANIC COMPOUND:	NE

NOTE: NA – Not Applicable      NE – Not Established

For additional information, contact customer service.

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**10.) STABILITY AND REACTIVITY**

STABILITY (THERMAL, LIGHT, WEATHER, ETC.):	Stable (color does change).
CONDITIONS TO AVOID:	Heat and flame. Build up of dusts.
INCOMPATIBILITY:	Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS:	Smoke, carbon monoxide, carbon dioxide, hydrogen chloride & other hydrocarbons.
HAZARDOUS POLYMERIZATION:	Will not occur.

**11.) TOXICOLOGICAL DATA**

**ACUTE TOXICOLOGY**

ORAL TOXICITY (RATS):	NE
DERMAL TOXICITY (RABBITS):	NE
INHALATION TOXICITY (RATS):	NE
EYE IRRITATION (RABBITS):	NE
SKIN IRRITATION (RABBITS):	NE

NOTE: NE – Not Established

**CHRONIC TOXICOLOGY**

IARC has determined and summarized that there is sufficient evidence to classify wood fiber as a human carcinogen (Group 1). This classification is based primarily on IARC's evaluation of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. IARC didn't find sufficient evidence to associate cancers of the oropharynx, hypopharynx, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust. Exposure to wood fiber is severely reduced when a polymer matrix encases the wood fiber.

IARC or OSHA has determined and summarized that there is not sufficient evidence to classify polyvinyl chloride as a human carcinogen.

**12.) ECOLOGICAL INFORMATION**

ENVIRONMENTAL FATE AND EFFECTS: Not Established

**13.) DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL: Dispose of waste in a licensed landfill or by incineration in accordance with federal, state and local laws and regulations.

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**14.) TRANSPORT INFORMATION**

USA DOT: Not regulated by US DOT.  
IMO: Not regulated by IMO.  
IATA: Not regulated by IATA

**15.) REGULATORY INFORMATION**

GOVERNMENT INVENTORY STATUS: All components comply with TSCA.

U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III:  
Fiber Composites' **fiberon® Horizon Plus Series Guardrail Systems** contains no chemicals reportable under SARA (313) toxic release program.

USE: Composite Lumber Products for Exterior Decks and Balconies

**INGREDIENTS:**

Wood fiber	10 – 25 % by weight
Polyvinyl Chloride	90 - 75 % by weight

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