

## 1 – Product Identification

<b>Manufacturer</b>	<b>Supplier</b>
BARRIER 510 4th Street North P.O Box 379 Watkins, MN 55389-0379	MULE-HIDE PRODUCTS CO., INC. 1195 Prince Hall Drive P.O Box 1057 Beloit, WI 53512-1057
<b>Emergency Phone:</b>	(800) 424-9300 (7\ Ya If YW)
<b>Phone for Additional Information:</b>	(608) 365-3111
<b>Product Name:</b>	FR Deck Panel
<b>Synonym:</b>	Fire-Rated Sheathing
<b>Date Prepared:</b>	1/8/91
<b>Date Revised:</b>	6/20/05
<b>Prepared By:</b>	Barrier Technical Data Department

## 2 – Hazardous Ingredients/Identity Information

Chemical or Common Name	Percent	CAS#
<b>Core</b>		
Plywood or Oriented Strandboard	81.9-88.1	None
<i>Wood Dust Exposure Limits:</i>		
OSHA PEL-TWA	5 mg/m <sup>3</sup> (Softwood or hardwood total dust)	
OSHA PEL-STEL	10 mg/m <sup>3</sup> (Softwood or hardwood total dust)	
OSHA PEL-TWA	2.5 mg/m <sup>3</sup> (Western red cedar total dust)	
ACGIH TLV-TWA	5 mg/m <sup>3</sup> (Softwood total dust)	
ACGIH TLV-STEL	10 mg/m <sup>3</sup> (Softwood total dust)	
ACGIH TLV-TWA	1 mg/m <sup>3</sup> (Selected hardwood total dust; beech, oak)	
<b>Face</b>		
Refractory Cement Board	11.8-18.1	None
<b>Note:</b> Refractory cement board is a mixture of metal oxide, aluminum cement, amorphous silicate, metal salts and fiberglass.		
Amorphous Silica (crystalline quartz)	0.8-2.5	14808-60-7
<b>Cement Board Exposure Limits:</b>		
OSHA PEL-TWA	0.1 mg/m <sup>3</sup> (Total dust)	
ACGIH TLV-TWA	0.1 mg/m <sup>3</sup> (Total dust)	

### Appearance and Odor

White, opaque Pyrotite layer of refractory cement board over plywood or OSB panels.

The wood component may consist of alder, aspen, beech, birch, cottonwood, fir, gum, hemlock, hickory, maple, oak, pecan, pine, poplar, spruce, walnut and/or western red cedar.

## 3 – Physical/Chemical Characteristics

<b>Boiling Point (F or C):</b>	N/A
<b>Vapor Pressure (mm Hg):</b>	N/A
<b>Vapor Density (AIR =1):</b>	N/A
<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	Variable: 0.40-0.80 (Wood) NAV (Refractory cement board)
<b>Melting Point (F or C):</b>	N/A
<b>Evaporation Rate (Butyl Acetate = 1):</b>	N/A
<b>Solubility in Water:</b>	Insoluble
<b>% Volatile by Water @ 70F:</b>	0

## 4 – Fire and Explosion Hazard Data

<b>Flash Point (Method Used):</b>	NAP
<b>Flammable Limits:</b>	LEL: N/A UEL: N/A
<b>Extinguishing Media:</b>	Dry chemical, carbon dioxide, and sand
<b>Auto Ignition Temperature (F or C):</b>	Wood component: 400-500°F Face component: N/A
<b>Special Fire Fighting Procedures:</b>	Fire fighters should wear self-contained breathing apparatus (SCBA).
<b>Unusual Fire and Explosion Hazards:</b>	Depending on moisture content and more importantly particle diameter, wood dust may explode in the presence of an ignition source. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dusts. Refractory cement board dust is neither combustible nor explosive.

## 5 – Reactivity Data

<b>Stability:</b>	( ) Unstable (X) Stable	Conditions to Avoid: NAP
<b>Hazardous Polymerization:</b>	( ) May Occur (X) Will Not Occur	Conditions to Avoid: NAP
<b>Incompatibility (Materials to Avoid):</b>	Avoid contact with oxidizing agents. Avoid open flame. Wood components may ignite at temperatures in excess of 400°F.	
<b>Hazardous Decomposition or By-Products:</b>	Thermal decomposition products may include carbon monoxide, carbon dioxide, aliphatic aldehydes, rosin acids, terpenes, polycyclic aromatic hydrocarbons.	

## 6 – Precautions for Safe Handling and Use

Steps To Be Taken in Case Material is Released or Spilled: Not applicable for product in purchased form. Dust produced by cutting or remanufacturing may be vacuumed or shoveled for recovery or disposal. Avoid dusty conditions and provide good ventilation. Use NIOSH/MSHA approved dust respirator and goggles where ventilation is not possible.

Waste Disposal Method: If disposed or discarded in its purchased form, dry land disposal is acceptable in most states. It is, however, the user's responsibility to determine at the time of disposal whether the user's product meets RCRA criteria for hazardous waste. Follow applicable federal, state, or local regulations.

## 6 – Continued

**Precautions To Be Taken in Handling and Storage:** No special handling precautions are required. This product will release small amounts of gaseous formaldehyde. Store in a well ventilated, cool, dry place away from open flame.

**Other Precautions:** A NIOSH/MSHA- approved dust respirator and goggles should be worn when the allowable exposure limits may be exceeded.

All cutting should be done under adequate ventilation to remove dust.

## 7 – Health Hazard Data

### Primary Route(s) of Exposure:

- ( ) Ingestions
- (X) Skin: Dust
- (X) Inhalation: Dust

### Acute Health Hazards

Signs and symptoms of exposure/emergency and first aid procedures:

**Ingestion:** Not applicable under normal use.

**Eye Contact:** Dust may cause mechanical irritation. Treat dust in eyes as foreign object. Flush with water to remove dust particle. Get medical help if irritation persists.

**Skin Contact:** Dust(s) can cause mechanical irritation resulting in erythema (reddening) hives and dryness. Get medical help if rash, irritation, or dermatitis persists.

**Skin Absorption:** Not known to occur under normal use.

**Inhalation:** Dust may cause unpleasant deposit/obstruction in the nasal passages, resulting in dryness of nose, dry cough, and headaches. Remove to fresh air. Get medical help if persistent irritation, severe coughing, or breathing difficulty occurs.

**Medical Conditions Generally Aggravated by Exposure:** Wood dust may aggravate preexisting respiratory conditions or allergies.

**Chronic Health Hazards:** The Federal Dept. of Housing and Urban Development (HUD) recognizes phenolic panel products as low emitters of formaldehyde and has exempted them from the Testing and Certification Requirement of the Manufactured Home Construction and Safety Standards (24 CFR Part 3280).

Wood dust(s), depending on the species (for example, irko, cocobolo), may cause allergic contact dermatitis on prolonged, repetitive contact, and respiratory sensitization after prolonged exposure to elevated dust levels (for example, western red cedar). Wood dust has been alleged to cause nasal/paranasal sinus cancer (certain European hardwoods: oak and beech).

Prolonged and repeated inhalation of crystalline silica dust may result in development of a fibrogenic lung disease (silicosis) and may be a contributing factor to the onset of other respiratory illness. Silica dust has been identified by IARC (International Agency for Research on Cancer) as a probable animal carcinogen. There is limited evidence for carcinogenicity in humans.

### Carcinogenicity Listing:

- (X) NTP: Formaldehyde
- (X) IARC Monographs: Formaldehyde and crystalline silica
- (X) OSHA Regulated: Formaldehyde

## 8 – Control Measures

### Personal Protective Equipment:

**Respiratory Protection:** Not applicable for product in purchased form: However, A NIOSH/MSHA-approved respirator is recommended when the allowable exposure limit may be exceeded (i.e., while cutting, routing, sanding and drilling).

**Protective Gloves:** Not required. However, cloth, canvas, or leather gloves are recommended to minimize potential mechanical irritation from handling product.

**Eye Protection:** Not applicable for product in purchased form. Goggles or safety glasses are recommended when machining this product.

**Other Protective Clothing Equipment:** Not applicable for product in purchased form. Outer garments may be desirable in extremely dusty areas.

**Work/Hygienic Practices:** Follow good hygienic and housekeeping practices. Clean-up areas where wood dust settles to avoid excessive accumulation of this combustible material. Minimize blowdown or other practices which generate high airborne-dust concentrations.

### Ventilation:

**Local Exhaust:** Provide local exhaust as needed so that exposure limits are met.

**Mechanical (general):** Provide general ventilation in processing and storage areas as needed so that exposure limits are met.

**Special:** Self-contained breathing apparatus (SCBA) recommended when fighting fire.

## 9 – User's Responsibility

The information contained in this Material Safety Data Sheet is based on the experience of occupational health and safety professionals and comes from sources believed to be accurate or otherwise technically correct. It is the user's responsibility to determine if the information is suitable for their applications and to follow safety precautions as may be necessary. The user has the responsibility to make sure that this sheet is the most up-to-date-issue.

## 10 – Additional Information

### Definition of Common Terms:

**ACGIH** – American Conference of Governmental Industrial Hygienists

**C** – Ceiling Limit

**CAS#** - Chemical Abstracts System Number

**IARC** – International Agency for Research on Cancer

**MSHA** – Mining Safety and Health Administration

**NAV** – Not Available

**NIOSH** – National Institute for Occupational Safety and Health

**NTP** – National Toxicology Program

**OSHA** – Occupational Safety and Health Administration

**PEL** – Permissible Exposure Limit

**STEL** – Short Term Exposure Limit (15 minutes)

**TLV** – Threshold Limit Value

**TWA** – Time-Weighted Average (8 hours)