

MATERIAL SAFETY DATA SHEET

September 1, 2007

I. Product Identification

Name: Brookline® Reconstituted Wood Veneer

Trade Name: Brookline®

Composition Information

Poplar, Ayous, Basswood wood	70-80%
Urea resins (free formaldehyde content <0.2%)	10-26%
P-vinyl acetate	0-10%
Non-metallic azoic and anthraquinone colors belo	nging
to the acid class or direct class	<1%
Water: veneers from 0.3mm to 3.0mm	<12%
Boards and undried solid wood	<250%

II. Hazardous Ingredients

Brookline® by itself is not considered a hazardous material. However, under certain conditions of processing and/or storage the following hazardous chemicals or substances may be released:

		ACGIH	OSHA
		Exposure	Exposure
Common Name	CAS Number	Limit	Limit
Formaldehyde	50-00-0	TLV-Ceiling	0.75 ppm 8-hour
		0.3 ppm	TWA
			2 ppm 15-mm STEL
Wood Dust	None	1mg/m³ 8-hour	5mg/m³ 8-hour
		TWA	TWA and 10mg/m3
			15-mm STEL

NOTE 1: Small quantities of formaldehyde in the form of gas may be emitted from Brookline® depending on the storage conditions. Under our testing, any formaldehyde emissions from Brookline® were under the OSHA exposure limits. Small quantities of formaldehyde may also be emitted from certain finishes applied by the customer to Brookline®, as well as substrate materials to which Brookline® may be





bonded. Emissions decrease through time as the veneer ages.

NOTE 2: Wood dust may be created in sawing, sanding, or otherwise machining Brookline®. By itself, Brookline® does not emit wood dust.

III. Physical Properties

Brookline® is a composite wood veneer composed of layers of dyed hardwood veneer bonded together with urea-formaldehyde adhesive:

Specific Gravity -Variable, but generally between 0.3 and 1.0 **Boiling Point** Not Applicable Melting Point ** Vapor Pressure Vapor Density Evaporation Rate -** Volatile by Volume Solubility in Water Essentially insoluble Physical State Odor typical of wood and urea resin Density 450-900 Kg/m3

This applies to products which have not been finished or treated.

IV. Fire and Explosion Hazard Data

Flash Point	Not applicable
Autoignition Temperature	Not available (will depend upon duration of exposure to heat source and other variables).
Explosive Limits in Air	See below under "Unusual Fire and Explosion Hazards" Brookline® by itself does not present an explosion hazard.
Extinguishing Media	Water, Carbon Dioxide, Sand
Special Fire Fighting Procedures	None
Procedures	None
Unusual Fire and Explosion	
Hazards	Sawing, sanding or machining can produce wood dust as a by-product which may present an explosion hazard if a dust cloud contacts an ignition source. An airborne concentration of 40 grams of dust per cubic meter of air is often used as the LEL for wood dust.

V. Reactivity

Stable under normal conditions. Avoid contact with open flame or temperatures which will cause wood to ignite or burn. Avoid contact with strong oxidizers. High temperatures and high relative humidity increases the rate of formaldehyde emissions from Brookline®. Exposure to humidity will cause the material to swell. A long term exposure to sunlight can result in a chemical and physical degradation.

VI. Precautions for Safe Handling and Use

- 1. Provide adequate ventilation to reduce the possible build-up of formaldehyde gas, particularly when high indoor temperatures occur. Handle in a well-ventilated area with gloves to avoid prolonged skin contact. Avoid open flames, excessive heat sources, and sparks.
- Waste disposal Incinerate or landfill in accordance with local, state, and federal regulations.
- Store in a safe, clean, well-ventilated area in accordance with all local industrial codes and laws.

VII. Health Hazard Data

The presence or absence of many symptoms listed depends on the level of formaldehyde gas and wood dust and other factors in the work place. Brookline® is only one of many potential sources of formaldehyde and wood dust in the work place.

	Formaldehyde Gas	Wood Dust
Primary Routes of Exposure	Inhalation	Inhalation Skin contact
Accute Hazards Eye Contact	May cause temporary irritation resulting in a burning sensation in eyes, nose and throat.	May cause temporary irritation
Remedy	Ventilate work area with outside air to reduce formaldehyde levels	Flush with water to remove dust particles

	Formaldehyde Gas	Wood Dust
Skin contact	Formaldehyde in liquid or solid state may cause contact dermatitis due to irritation, or to allergy in some sensitized individuals. However, contact dermatitis is unlikely to occur as a result of contact with Brookline® since any formaldehyde released would normally be in small quantities of formaldehyde gas	May cause skin irritation and skin rash
Remedy	Sensitized persons should be removed from work area where contact occurs. Wear protective gloves.	Wear protective clothing such as long sleeved shirts and gloves and use ashing facilities

Formaldehyde Gas

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Temporary irritation to eyes, nose

and throat.

Wood Dust

Unpleasant feeling in nasal passages, dryness of nose,

sneezing, and dry cough

Remedy

Inhalation

Wear respirators whenever PELs

may be exceeded. Move to fresh air areas Move to fresh air areas

Formaldehyde Gas

Chronic Health Hazards

Laboratory animals exposed to 14-15 ppm of formaldehyde gas developed nasal cancer. Such levels are far above those normally observed in the workplace and those permitted by OSHA.

A Universities Associated for Research and Education in Pathology, Inc. (UAREP) panel of experts, after reviewing more than 30 epidemiological studies, concluded that "for no malignancy in man is there convincing evidence of a relationship with formaldehyde exposure" and "that if a relationship does exist, the excess risk in absolute terms, must be small."

Listed by IARC as an animal and B-2 probable human carcinogen. Listed by NTP as an animal carcinogen.

Regulated by OSHA as a potential cancer agent.

Wood Dust

May cause nasal dryness, irritation and obstruction. Coughing, wheezing, and sneezing; sinusitis and prolonged colds have also been reported.

Depending on species, may cause respiratory sensitization and/or irritation. Prolonged exposure to wood dust has been reported by some observers to be associated with nasal cancer. Wood dust is not listed as a carcinogen by NTP or OSHA.

Wood dust is listed by IARC as a

Group 1 carcinogen.

GENERALLY APPLICABLE CONTROL MEASURES

Ventilation: Provide adequate general and local exhaust ventilation to keep airborne contaminant concentration levels below the OSHA PELs.

Personal Protective Equipment: Wear goggles or safety glasses when manufacturing or machining the product. Wear NIOSH/MSHA approved respirator when the allowable exposure limits may be exceeded. Other protective equipment such as gloves and outer garments may be needed depending on dust conditions.

EMERGENCY AND FIRST AID PROCEDURES

Eyes	Flush eyes with large amounts of water. Remove to fresh air. If irritation persists, get medical attention.
Skin	Wash affected areas with soap and water. Get medical advice if rash or persistent irritation or dermatitis occurs.
Inhalation	Remove to fresh air. Get medical advice if persistent irritation, severe coughing or breathing difficulty occurs.
Ingestion	Not applicable

IMPORTANT

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