



## Material Safety Data Sheet Brazilian Bending-Ply

**PRODUCT IDENTIFICATION:** Brazilian bending plywood laminated with Urea-Formaldehyde resin.

**SYNONYMS:** None

**TRADE NAME:** None

**DESCRIPTION:**

This panel product contains a hardwood veneer face bonded to multi-ply veneer, using urea-formaldehyde resin.

\* This fact sheet is for plywood that has not been finished (coated, laminated or overlaid) or treated (for example, with preservative or fire retardant).

**POTENTIAL AIRBORNE RELEASES:**

The product may release small quantities of formaldehyde (CAD No. 50-00-0) in gaseous form. Emissions decrease through time as the panels age. Tested panels (ASTM D 5582) have emitted at levels within the generally accepted E-0 European standard (less than 0.2 ug/ml). Manual or mechanical cutting or abrasion processes performed on the product can result in generation of wood dust.

**PHYSICAL DATA:**

Boiling Point	Not applicable
Specific Gravity (H <sub>2</sub> O = 1)	< 1
Vapor Density	Not applicable
% Volatiles by Vol.	0
Melting Point	Not applicable
Vapor Pressure	Not applicable
Solubility in H <sub>2</sub> O (% by wt.)	< 0.1%
Evaporation Rate (Butyl Acetate = 1)	Not applicable
pH	Not applicable
Appearance and Odor	Light to dark color. Color and odor are dependent upon wood species.

**FIRE AND EXPLOSION DATA:**

Flash Point	Not applicable
Auto ignition Temperature	Not available (will depend upon duration of exposure to heat sources and other variables).
Explosive Limits in Air	See below under "Unusual Fire and Explosion Hazards"
Extinguishing Media	Water, Carbon dioxide, Sand
Special Fire Fighting 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. As airborne concentration of 40 grams of dust per cubic meter of air is often used as the LEL for wood dust.

## REACTIVITY DATA

Conditions contributing to Instability

Stable under normal conditions.

Incompatibility

Avoid contact with oxidizing agents. Avoid open flames. Product may ignite in excess of 400 degrees F.

Hazardous Decomposition Products

Thermal and/or thermal oxidative decomposition can produce irritating and toxic fumes and gases, including carbon monoxide, hydrogen cyanide, aldehydes, organic acids and polynuclear aromatic compounds.

Hazardous Polymerization

Not applicable

## HEALTH EFFECTS INFORMATION

### Exposure Limits:

Formaldehyde:

OSHA PEL - TWA 0.75 ppm  
OSHA PEL - STEL 2 ppm  
ACGIH TLV - CEILING 0.3 ppm

Wood Dust (all soft and hardwoods except Western red cedar)

OSHA PEL - TWA 5 mg/m<sup>3</sup>  
OSHA PEL - STEL 10 mg/m<sup>3</sup>

Wood Dust (Western red cedar)

OSHA PEL - TWA 2.5mg/m<sup>3</sup>

Wood Dust (softwood)

ACGIH TLV - TWA 5 mg/m<sup>3</sup>

Wood Dust (certain hardwoods such as beech and oak)

ACGIH TLV - TWA 1 mg/m<sup>3</sup>

Eye Contact:

Gaseous formaldehyde may cause temporary irritation or a burning sensation. Wood dust can cause mechanical irritation.

Skin Contact:

Both formaldehyde and various species of wood dust may evoke allergic contact dermatitis in sensitized individuals.

Ingestion:

Not likely to occur.

Inhalation

Gaseous formaldehyde:

May cause temporary irritation to eyes, nose and throat. Some reports suggest that formaldehyde may cause respiratory sensitization, such as asthma, and that pre-existing respiratory disorders may be aggravated by exposure.

Formaldehyde is listed by the International Agency for Research on Cancer (IARC) as a probable human carcinogen. The National Toxicology Program (NTP) includes formaldehyde in the Annual Report on Carcinogens. Formaldehyde is regulated by OSHA as a

potential cancer agent.

In studies involving rats, formaldehyde has been shown to cause nasal cancer after long-term exposure to very high concentrations (14+ ppm), far above those normally found in the workplace using this product.

The National Cancer Institute (NCI) conducted an epidemiological study of industrial workers exposed to formaldehyde (published June 1986). The NCI concluded that the data provides little evidence that mortality from cancer is associated with formaldehyde exposure at the levels experienced by workers in the study.

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 IARC, NTP or OSHA.

#### **PRECAUTIONS, SAFE HANDLING**

Formaldehyde: Provide adequate ventilation to reduce the possible buildup of formaldehyde gas, particularly when high temperatures occur.

Wood Dust: Avoid dusty conditions and provide good ventilation.

#### **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.

Manufacturer Name/Address Effective Date Supersedes Date Prepared By

---

**IMPORTANT:** The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. InterGlobal Forest makes no warranty of any kind, express or implied, concerning the accuracy or completeness of the information and data herein. InterGlobal Forest will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading. It is incumbent upon the user to obtain the most up-to-date information.