



***MATERIAL SAFETY DATA SHEET***

**PRODUCT IDENTIFICATION:** NAF Hardwood Plywood,  
Veneer core & Veneer core and MDF Cross Banded  
(Synthetic Co-Polymer Emulsion Bonded Resin)\*

**SYNONYMS:** None

**TRADE NAME:** **Greenply**

**CERTIFICATIONS:** FSC Mixed Credit, CARB P2 – PSI

**DESCRIPTION**

This panel product contains a hardwood veneer face (occasionally a decorative softwood face) bonded to wood components such as other wood veneer, particleboard, or medium density fiberboard (MDF) using CARB Phase 2 certified, no added formaldehyde resin.

**POTENTIAL AIRBORNE RELEASES**

Manual or mechanical cutting or abrasion processes performed on the product can result in generation of wood dust. The product may release very small quantities of formaldehyde (CAS No. 50-00-0) in gaseous form. Emissions decrease through time as the panels age.

**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.

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

**FIRE AND EXPLOSION DATA**

Flash point.....	Not applicable
Auto-ignition 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"
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. An 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 flame.

Product may ignite in excess of 400°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 poly-nuclear aromatic compounds.

Hazardous Polymerization.....

Not applicable

HEALTH EFFECTS INFORMATION

Exposure Limits:

Formaldehyde from wood.....

OSHA PEL - TWA <0.04 ppm

OSHA PEL - STEL <0.04 ppm

ACGIH TLV - CEILING <0.04 ppm

Wood Dust (all soft and hard

Woods except Western red cedar)...

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

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

Wood Dust (Western red cedar).....

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

Wood Dust (Softwood).....

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

Wood Dust (certain hardwoods such as beech and oak) .....

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

Eye Contact.....

Wood dust can cause mechanical irritation.

Skin Contact.....

Various species of wood dust may evoke allergic contact dermatitis in sensitized may evoke allergic contact dermatitis in sensitized individuals.

Ingestion.....

Not likely to occur.

Inhalation:

Gaseous formaldehyde.....

From wood, not resin, 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. This product meets or exceeds the most stringent level of emission standards set forth by the California Air Regulatory Board, CARB Phase 2.

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

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 likely to occur.

Effective Date

*January 1, 2009*

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