

# Material Safety Data Sheet



**Boise Cascade**

## SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Melamine-Formaldehyde Bonded Wood Product (Particleboard)
Trade Name:	Premium Sustainable Particleboard, BOISE EVERGREEN™
Manufacturer/Distributor:	Boise Cascade Corporation P.O. Box 62 Boise, ID 83707-0062
Phone Number:	208/384-6611
Description:	This panel product is manufactured from particles and fibers of wood bonded together with melamine-formaldehyde resin. Boise Evergreen™ comprises 100% recycled or reclaimed fiber and carries no added urea-formaldehyde.

## SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

MATERIAL OR COMPONENT	C.A.S. #	PERCENT
Softwood	Not Applicable	83-90% by weight
Hardwood	Not Applicable	4-5% by weight
Polymerized Melamine-Formaldehyde Resin	Not Applicable	6-15% by weight
Component	OSHA PEL	ACGIH TLV
Wood Dust (soft and most hardwoods, except Western Red Cedar, Beech, and Oak) & polymerized Melamine resin	15.0 mg/m <sup>3</sup> TWA (Total) 5.0 mg/m <sup>3</sup> TWA (Respirable)	Wood Dust -Nonallergenic & noncarcinogenic - 1 mg/m <sup>3</sup> -other respiratory allergenic wood dust - 0.5 mg/m <sup>3</sup>

\* The panels all meet Department of Housing and Urban Development Safety Standards. ASTM E1333-96(2002) chamber tests have shown the formaldehyde concentration to be less than 0.3 parts per million (ppm).

### SECTION 3 HAZARD IDENTIFICATION

#### **INHALATION**

Dust may cause nasal dryness, irritation, coughing, and sinusitis. Repeated exposures (even below 5 mg/m<sup>3</sup>) to certain wood dusts can produce allergic responses in some sensitive individuals.

#### **SKIN CONTACT**

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

#### **SKIN ABSORPTION**

Not applicable for product in purchased form.

#### **EYE CONTACT**

Dust may cause temporary irritation, mechanical irritation, or a burning sensation to the eyes.

#### **INGESTION**

Not applicable for product in purchased form.

**WOOD DUST:** 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. Wood dust is not considered a potential cancer hazard by OSHA. The National Toxicology Program (NTP) and the International Agency for Research on Cancer (IARC) classifies wood dust as a carcinogen to humans (Group 1). This classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. IARC did not find sufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon, or rectum with exposure to wood dust.

**FORMALDEHYDE:** The panels all meet Department of Housing and Urban Development Safety Standards. ASTM E1333-96(2002) chamber tests have shown the formaldehyde concentration to be less than 0.3 parts per million (ppm).

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

Formaldehyde is listed by IARC as a probable human carcinogen. The 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.

#### **SECTION 4 FIRST-AID MEASURES**

##### **INHALATION**

Remove to fresh air. If persistent irritation, severe coughing, or breathing difficulty occurs, get medical attention.

##### **EYE CONTACT**

Remove contact lenses (if applicable). Flush eyes, including under eyelids, with large amounts of water. Remove to fresh air. If irritation persists, get medical attention.

##### **SKIN CONTACT**

Wash affected areas with soap and water. If rash or persistent irritation or dermatitis occurs, get medical attention.

##### **INGESTION**

Not applicable for product in purchased form.

#### **SECTION 5 FIRE FIGHTING MEASURES**

##### **FIRE AND EXPLOSION**

##### **FLASH POINT**

Not applicable

##### **AUTO IGNITION TEMPERATURE**

Dependent upon duration of exposure to heat source and other variables.  
400° - 500°F(204° - 260°C)

##### **FLAMMABLE LIMITS IN AIR (% BY VOLUME)**

An airborne concentration of 40 grams of dust per cubic meter of air is often used as the lowest explosion limit (LEL) for wood dust.

##### **SPECIAL FIRE FIGHTING PROCEDURES**

Burns like other wood products, although it is dangerous and may burn hotter. Partially burned dust is especially hazardous if dispersed into the air. Remove burned or wet dust to an open area after fire is extinguished.

##### **EXTINGUISHING MEDIA**

Water, carbon dioxide, sand.

## **SECTION 6 ACCIDENTAL RELEASE MEASURES**

Not applicable for product in purchased form. Sweep or vacuum dust for recovery or disposal. Wood dust cleanup and disposal activities should be accomplished in a manner to minimize creation of airborne dust.

\*Appropriate Regulatory Agencies should be notified in the event of an accident.

## **SECTION 7 HANDLING AND STORAGE**

Provide adequate ventilation to reduce the possible buildup of formaldehyde gas, particularly when high temperatures occur. Avoid dusty conditions and provide good ventilation. Melamine-bonded wood products should not be stored where exposure to water could occur. Wood products are combustible and, therefore, should not be subjected to temperatures exceeding the autoignition temperature.

## **SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION**

### **PERSONAL PROTECTIVE EQUIPMENT**

#### RESPIRATORY PROTECTION

Wear NIOSH-approved respirator when the allowable OSHA exposure limits to wood dust and/or formaldehyde may be exceeded.

#### EYE PROTECTION

Recommend goggles or safety glasses as conditions indicate when sawing, sanding, or machining wood products.

#### SKIN PROTECTION

Other protective equipment, such as gloves and outer garments, may be needed to reduce skin contact. Wash affected area of the body after contact with dust.

#### OTHER CLOTHING AND EQUIPMENT

Not Applicable

### **ENGINEERING CONTROLS**

#### VENTILATION REQUIREMENTS

Provide local exhaust, as necessary, to meet OSHA requirements for allowable exposure limits.

#### OTHER TYPES OF ENGINEERING CONTROLS

Due to the explosive potential of wood dust when suspended in air, precautions should be taken during sanding, sawing, or machining of wood products to prevent sparks or other ignition sources in ventilation equipment.

**SECTION 9      PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL FORM.....	:	Solid
COLOR.....	:	Light to dark tan. Color and odor are dependent upon wood species.
ODOR.....	:	Dependent upon wood species.
BOILING POINT.....	:	Not applicable.
MELT POINT/FREEZE POINT.....	:	Not applicable.
pH .....	:	Not applicable
SOLUBILITY IN WATER.....	:	<0.1%
SPECIFIC GRAVITY.....	:	<1.0
EVAPORATION RATE.....	:	Not applicable.
% VOLATILE BY VOLUME.....	:	Not applicable.
VAPOR PRESSURE.....	:	Not applicable.
VAPOR DENSITY.....	:	Not applicable.

**SECTION 10     STABILITY AND REACTIVITY**

CONDITIONS CONTRIBUTING TO INSTABILITY

Stable under normal conditions. Wood dust generated from sawing, sanding, or machining the product is extremely combustible. Keep in cool, dry place away from ignition sources.

INCOMPATIBILITY (MATERIALS TO AVOID)

Avoid contact with oxidizing agents and drying oils. Avoid open flame.

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal-oxidation degradative or burning of wood can produce irritating and potentially toxic fumes and gases, including carbon monoxide, aldehydes, organic acids, nitrogen compounds, hydrogen cyanide, and various hydrocarbons.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Will not occur.

**SECTION 11     TOXICOLOGICAL INFORMATION**

See Section 3 - HAZARD IDENTIFICATION

**SECTION 12     ECOLOGICAL INFORMATION**

Not applicable for product in purchased form.

**SECTION 13 DISPOSAL CONSIDERATIONS**

This product is not considered hazardous waste under Federal Hazardous Waste Regulations 40 CFR 261. State and local requirements for waste disposal may be different from federal regulations. Incinerate or landfill in accordance with local, state, and federal regulations.

HAZARDOUS WASTE DESIGNATION

Not applicable

**SECTION 14 TRANSPORT INFORMATION**

DOT (Department of Transportation)

Proper Shipping Name:	Melamine-formaldehyde bonded wood
Hazard Class:	Combustible
Identification Number:	Not applicable

**SECTION 15 REGULATORY INFORMATION**

TSCA (Toxic Substance Control Act):

Not applicable for product in purchased form.

CERCLA (Comprehensive Response Compensation and Liability Act):

Not applicable for product in purchased form.

SARA Title III:

Not applicable for product in purchased form.

## SECTION 16 OTHER INFORMATION

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

Wood dust is now officially regulated as an organic dust under the Particulates Not Otherwise Regulated (PNOR) or Inert or Nuisance Dust categories at PELs of: TWA - 15.0 mg/m<sup>3</sup> (total dust); 5.0 mg/m<sup>3</sup> (respirable fraction). However, a number of states have incorporated provisions of the 1989 standard in their state plans. Additionally, OSHA has announced that it may cite companies under the OSH Act General Duty Clause under appropriate circumstances for noncompliance with the 1989 PELs.

MSDS Status: Updated to new format.

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