



MATERIAL SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

PRODUCT : Particleboard (Phenol-Formaldehyde Bonded)
Raw and Laminated

PRODUCT NAME : All particleboard products including NuGreen

MANUFACTURER'S NAME : Uniboard Canada Inc.

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SECTION 2 : HAZARDOUS INGREDIENTS
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Under some conditions, the following hazardous chemicals or components may be released from particleboard and/or products manufactured from same. Wood dust may also be developed from machining form various wood products.

Chemical Component	(CAS 1)	ACGIH TLV	OSHA PEL
Formaldehyde	50-00-0	Ceiling 0.3 ppm	TWA 0.75 ppm STEL 2.0 ppm
Wood dust	N/A	TWA 5 mg/m ³ (softwood) STEL 10 mg/m ³ (softwood) STEL 1 mg/m ³ (beach and oak)	TWA 5 mg/m ³ (all except Red Cedar) STEL 10 mg/m ³ (all except Red Cedar) STEL 2.5 mg/m ³ (Western Red Cedar)

SECTION 3 : PHYSICAL CHARACTERISTICS

DESCRIPTION	Composite panel product composed primarily of wood particles and phenol-formaldehyde binder pressed into flat panels
BOILING POINT (°C)	N/A
SPECIFIC GRAVITY (Water = 1)	Variable but generally under 1.0
VAPOR PRESSURE (mm Hg)	N/A
APPEARANCE AND ODOUR	Light tan to dark tan. No distinctive odour.
MELTING POINT (°C)	N/A
VAPOR DENSITY (AIR = D)	N/A
REACTIVITY IN WATER	N/A
SOLUBILITÉ DANS L'EAU	N/A
EVAPORATION RATE	N/A

SECTION 4 : FIRE AND EXPLOSION DATA

FLASH POINT	N/A
AUTO IGNITION	218 to 246 ° C
FLAMMABLE LIMITS	Formaldehyde Lower Explosion Limit : 7% Formaldehyde Upper Explosion Limit : 73%
FIRE EXTINGUISHER MEDIA	Water spray, CO ₂ and sand
SPECIAL FIRE FIGHTING PROCEDURES	Fire fightign procedures for wood products Are well known
UNUSUAL FIRE AND EXPLOSION HAZARD	Particleboard is not an explosion hazard. Sawing, sanding and/or machining particleboard could result in the by-product wood dust. Wood dust may present a strong to severe explosion hazard if a dust cloud contacts an ignition source. According to data contained in NFPA (National Forest Products Association) standards, 40 g/m ³ (.040 ounce/ft ³) is the minimum explosive concentration for wood dust.

SECTION 5 REACTIVITY DATA

STABILITY	Stable
CONDITIONS TO AVOID	High relative humidity and high temperature.
INCOMPATIBILITY (MATERIAL TO AVOID)	Strong oxidizing agents, strong acids and drying oils.
HAZARDOUS DECOMPOSITION PRODUCTS	Thermal and/or thermal-oxidative decomposition (burning) can produce irritating and toxic fumes and gases, including carbon monoxide, hydrogen cyanide, trace amounts of organic acids, ketones, aldehydes and alcohols.
HAZARDOUS POLYMERIZATION	Will not occur.

SECTION 6 HEALTH AND HAZARD DATA

SIGNS AND SYMPTOMS OF EXPOSURE :

1. FORMALDEHYDE

ACUTE EXPOSURE

May cause temporary irritation of skin, eyes or respiratory system. May cause sensitization in susceptible.

CHRONIC EXPOSURE

Rats exposed to 14 ppm formaldehyde developed nasal cancer. The National Cancer Institute (NCI) epidemiology study of 26,000 workers found little evidence linking formaldehyde exposure to cancer. The Environmental Protection Agency (EPA) has classified formaldehyde a B-1 probable human carcinogen. Formaldehyde is classified by the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) as Group 2A chemical – Probable human carcinogen.

2. **WOOD DUST**

ACUTE EXPOSURE

Skin contact : Causes irritation and sensitization. Dermatitis has been reported in humans. Nature of the wood and origin of the dust has to be taken into consideration.

Eye contact: Causes eye irritation. Conjunctivitis has been reported in humans. Nature of the wood and origin of the dust has to be taken into consideration.

Inhalation: Causes irritation and sensitization. Inhalation of wood dust may irritate the respiratory tract by causing: drying of the mucus, sneezing , irritation cough and expectoration. May cause some difficulties in breathing such as bronchitis, nasal discharge, respiratory tract obstruction and more. May sensitize the respiratory system and cause asthmatic symptoms and signs.

CHRONIC EXPOSURE

Exposure to wood dust may cause asthmatic symptoms and signs. Chronic exposure to some species of wood and sensitivity of some workers may cause the outbreak of some allergies that can become a potential hazard to the individuals.

Irritancy to skin, respiratory system and eyes.

Sensitization of skin and respiratory system.

Carcinogenicity: Group 1 – human carcinogen (IARC). Nasal carcinoma has been reported in furniture industries and an increase of Hodgkins's disease has been reported in other wood working industries.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Respiratory conditions of allergies

EMERGENCY FIRST AID PROCEDURES:

INHALATION

Remove to fresh air. If persistent irritation, breathing difficulties or rash may occur, seek medical advice.

EYES

Remove to fresh air. Flush eyes immediately with clear water for 10 minutes. If irritation persists, get medical attention.

SKIN

Remove to fresh air. Wash skin with a mild soap or detergent and water, or flush affected area with water for a few minutes. If a rash or persistent irritation occurs, get a medical advice before returning to work where wood dust is present.

SECTION 7: SPILL/LEAK PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Provide ventilation or other measures so that dust levels are below the exposure limits listed in section 2.

STEPS TO BE TAKEN IF SPILLED OR RELEASED

See above for formaldehyde.

Sweep or vacuum spills of dust for recovery or disposal; avoid creating dust conditions.

WASTE DISPOSAL METHOD:

Incinerate or landfill in accordance with local, provincial, federal or state regulations.

SECTION 8 : SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

Avoid prolonged or repeated breathing of wood dust in the air.

Wear NIOSH (National Institute for Occupational Safety and Health) approved breathing protection for exposure to wood dust. Respirators are required if air contaminants exceed American Conference of Governmental Industrial Hygienists
- Threshold Limit Value (ACGIH – TLV).

VENTILATION

LOCAL EXHAUST

It is necessary to remove dust in sanding, sawing and machining processes.

MECHANICAL

Ventilate to assure formaldehyde and wood dust concentrations are less than ACGIH-TLV

EYE PROTECTION

Wear safety goggles in dusty environments.

SKIN PROTECTION:

Wear appropriate work gloves to prevent contact with skin.

