



WestPine MDF

a division of West Fraser Mills Ltd.

MATERIAL SAFETY DATA SHEET

Section 1: Product and Company Identification	
Product	Medium Density Fiberboard (MDF)
Product Trade Name	WestPine MDF™
General Use	Furniture, Cabinetry, Flooring and Millwork
Product Description	An engineered wood product made from mechanically refined wood fibres bonded together with a synthetic urea formaldehyde resin and which may contain additives.
Manufacturer	WestPine MDF™ a division of West Fraser Mills Ltd. 300 Carradice Road Quesnel, BC Canada V2J 5Z7

Section 2: Hazardous Ingredients	
Formaldehyde CAS # 50-00-0	The product may release small quantities of formaldehyde in gaseous form. Emissions decrease through time as the panels age. Refer to Section 6: Health Hazard Information
Wood Dust	Manual or mechanical cutting or abrasion processes performed on the product can result in generation of wood dust. Refer to Section 6: Health Hazard Information

Section 3: Physical Data	
Physical State	Solid
Appearance and Odour	Straw yellow to light brown. Colour and odour are dependent upon wood species.
Boiling and Melting Point	Not applicable
Specific Gravity (water=1)	<1
Solubility in Water	Insoluble
pH	Not applicable
Vapour Density and Pressure	Not applicable
Viscosity	Not applicable
Evaporation Rate	Not applicable

Section 4: Stability and Reactivity Data	
Stability	Stable under normal conditions.
Reactivity	Avoid product contact with any temperature sources that could induce thermal decomposition. Avoid product contact with oxidizing agents and strong acids.
Decomposition Products	Thermal and/or thermal-oxidative decomposition can produce irritating and toxic fumes and gases, including carbon monoxide, hydrogen cyanide, polynuclear aromatic hydrocarbons, aldehydes (including formaldehyde) and organic acids.

Section 5: Fire and Explosion Data	
Autoignition Temperature	Variable; typically 200 – 260 °C (400 – 500 °F)
Fire / Explosion Hazard	Sawing, sanding or machining can produce wood dust that may present an explosion hazard. Wood is classified as a Class A combustible material.
Flashpoint and Method	Not applicable
Flammable Limits	Not applicable
Fire Fighting Equipment	Use recommended Class A fire fighting equipment when fighting an incipient fire.
Fire Prevention	Remove accumulation of wood dust. Wet down dust to reduce risk of ignition and dispersion of wood dust in air.

*Refer to the National Fire Protection Association's standard 664 "Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities" for more details on wood dust explosions. (www.nfpa.org)

Section 6A: Health Hazard Information – Formaldehyde	
Acute	<p><u>Inhalation:</u> Gaseous formaldehyde may cause temporary irritation to nose and throat. Some reports suggest that formaldehyde may cause respiratory sensitization, such as asthma, and that pre-existing disorders may be aggravated by exposure.</p> <p><u>Eye Contact:</u> Gaseous formaldehyde may cause temporary irritation or a burning sensation.</p> <p><u>Skin Contact:</u> Formaldehyde may cause allergic contact dermatitis in sensitized individuals.</p> <p><u>Ingestion:</u> Not likely to occur</p>
Chronic	<p>International Agency for Research on Cancer (IARC) has listed formaldehyde as a probable human carcinogen. The National Toxicology Program (NTP) includes formaldehyde in its Annual Report on carcinogens. OSHA regulates formaldehyde as a potential cancer agent.</p> <p>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. 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 by workers in the study.</p>
Exposure Limits	<p><u>OSHA – Personal Exposure Limits (PEL)</u> TWA: 0.75 PPM STEL: 2.0 PPM</p> <p><u>ACGIH – Threshold Limit Values (TLV)</u> Ceiling: 0.30 PPM</p>

Section 6B: Health Hazard Information – Wood Dust	
Acute	<p><u>Inhalation:</u> Wood dust may cause nasal dryness, irritation and obstruction. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported.</p> <p><u>Eye Contact:</u> Wood dust can cause mechanical irritation.</p> <p><u>Skin Contact:</u> Wood dust may cause allergic contact dermatitis in sensitized individuals.</p> <p><u>Ingestion:</u> Not likely to occur</p>
Chronic	<p>Wood dust, depending on species, may cause respiratory sensitization and/or irritation. 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.</p> <p>The National Toxicology Program lists wood dust as a known human carcinogen in the NTP's tenth <i>Report on Carcinogens</i>.</p>
Exposure Limits	<p><u>OSHA – Personal Exposure Limits (PEL)</u> TWA: 15.0 mg/m³ total dust, 5.0mg/m³ respirable fraction</p> <p><u>ACGIH – Threshold Limit Values (TLV) - Softwood</u> TWA: 1 mg/m³ inhalable dust STEL (15 min): 10.0 mg/m³</p>

* In *AFL-CIO v. OSHA* 965 F. 2d 962 (11 Cir. 1992), the court overturned OSHA's 1989 Air Contaminants Rule, including the specific PELs for wood dust that OSHA had established at that time. The 1989 PELs were: TWA – 5.0 mg/m³; STEL (15 min) – 10.0 mg/m³ (all soft and hard woods, except Western red cedar).

* 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 noted in the Health Hazard Information Section of this MSDS. 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 non-compliance with the 1989 PELs.

Section 7: First Aid Measures	
Inhalation	Remove to fresh air. Get medical attention if irritation persists, severe coughing or breathing difficulty occurs.
Eye Contact	Flush eyes with large amounts of water. Remove to fresh air. If irritation persists, get medical attention.
Skin Contact	Wash affected areas with soap and water. Get medical attention if rash or irritation persists or dermatitis occurs.
Ingestion	Not applicable

Section 8: Preventive Measures	
Provide adequate ventilation to prevent build-up of formaldehyde gas.	General ventilation is usually adequate. Local exhaust may be preferred if cutting/machining processes cause localized heating of material.
Reduce dust concentration at point of generation.	Local exhaust and general ventilation is recommended for any process which produce wood dust at concentrations that approach safe exposure levels.
Reduce accumulation of dust in work areas.	Regular removal of wood dust from work areas is recommended. For removal of fine dust, vacuum methods are preferred.
Personal Protective Equipment	<p><u>Breathing Protection:</u> If safe exposure levels are approached or exceeded wear NIOSH approved breathing protection. For formaldehyde use an appropriate cartridge or supplied air respirator. For exposure to wood dust, nuisance dust respirator is advised.</p> <p><u>Skin Protection:</u> Cover skin to prevent prolonged or repeated skin contact.</p> <p><u>Eye Protection:</u> Wear safety glasses and/or chemical dust goggles.</p>
Fire Prevention Measures	Avoid contact with open flame. Avoid contact with oxidizing agents and drying oils. Prevent accumulations of fine wood dust particles.

Section 9: Accidental Release Measures	
Land or Water Spill	Generally not applicable to MDF products, however if a spill occurs the applicable Federal, Provincial, State and local regulations must be followed.

Section 10: Preparation Data	
Revision Date	June 15, 2005
Updated By	Elaine Robson for Shannon Newell Technical Coordinator WestPine MDF a division of West Fraser Mills Ltd.
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Notice of Disclaimer

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