

Section 1. Chemical Product and Company Identification	
<b>Common Name</b> <b>NORBORD MDF</b> (Standard, Moisture Resistant , High Density , Low Density and UltraLight Density )	<b>Chemical name</b> Not applicable
<b>Supplier/ Manufacturer</b> Norbord Inc. 1 Toronto Street, Suite 600 Toronto, Ontario M5C 2W4	<b>Chemical formula</b> Not applicable
	<b>CAS #</b> Mixture
<b>Synonym</b> Not available	<b>Validation Date</b> 03/28/2007
<b>Trade name</b> Norbord MDF	<b>Print Date</b> 03/28/2007
<b>Product description</b> An engineered wood panel product manufactured from refined wood fibers bonded together with synthetic resins under heat and pressure.	<b>Responsible Name</b> Norbord Inc.
<b>Material Uses</b> For industrial and commercial uses.	<b>In Case of Emergency</b> (450) 447-6659

Section 2. Composition and Information on Ingredients					
Name	CAS #	% by Weight	LD50	LC50	Exposure Limits
Hardwood dust (e.g., aspen, sweet gum, etc.)	Not available	90			<b>ACGIH (2006)</b> 1 mg/m3 TWA A4 Inhalable Dust <b>OSHA PEL</b> 15 mg/m3 TWA Total 5 mg/m3 Respirable <b>Ontario</b> <b>OEL-reg 833 (2005)</b> 5 mg/m3 TWAEV Total dust <b>BC reg 296-97 (1997)</b> Non-allergenic 1 mg/m3 K1, A <b>RQMT (Quebec) (2001)</b> 5 mg/m3 TWA Total
Softwood dust (Southern Yellow Pine)	Not available	90			<b>ACGIH (2006)</b> 1 mg/m3 TWA A4 Inhalable Dust <b>OSHA PEL</b> 15 mg/m3 TWA Total 5 mg/m3 Respirable <b>Ontario</b> <b>OEL-reg 833 (2005)</b> 3 mg/m3 TWAEV Total dust <b>BC reg 296-97 (1997)</b> Non-allergenic 2.5 mg/m3 K1 <b>RQMT (Quebec) (2001)</b> 5 mg/m3 TWA Total

**Section 2. Composition and Information on Ingredients**

Melamine Urea Formaldehyde Resin (free formaldehyde gas is less than 1% of resin mixture) <b>(For Moisture Resistant panel)</b>	Not Available	7-10			<b>No Exposure Limit Value</b>
<b>or</b>					
Urea Formaldehyde Liquid Resin (free formaldehyde gas is less than 1% of resin mixture) <b>(For Standard, High Density, Low Density and UltraLight panels)</b>	Not Available	0.1 - 5.0			<b>No Exposure Limit Value</b>
Paraffin Wax Emulsion (fume) (C <sub>n</sub> H <sub>2n+2</sub> )	8002-74-2	0.1 - 1.0			<b>ACGIH (2006)</b> 2 mg/m <sup>3</sup> TWA <b>OSHA PEL</b> Not available <b>Ontario</b> <b>OEL reg 833 (2005)</b> 2 mg/m <sup>3</sup> TWAEV <b>BC reg 296-97 (1997)</b> 2 mg/m <sup>3</sup> 8 hour EL 6 mg/m <sup>3</sup> 15 minutes EL <b>RQMT (Quebec) (2001)</b> 2 mg/m <sup>3</sup> TWA
Free Formaldehyde	50-00-0	<1%			<b>ACGIH (2006)</b> 0.3 ppm C SEN, A2 <b>OSHA PEL</b> 0.75 ppm TWA <b>Ontario</b> <b>OEL reg 833 (2005)</b> 1 ppm TWAEV 2 ppm STEV <b>BC reg 296-97 (1997)</b> 0.3 ppm TWA 1.0 ppm C K2, Z, A <b>RQMT (Quebec) (2001)</b> 2 ppm C C2
Green Dye (Specific MR Product Only)	Not Available	0.1			<b>No Exposure Limit Value</b>
Black Dye (Specific LD Product Only)	Not Available	0.1			<b>No Exposure Limit Value</b>

**Section 3. Hazards Identification**

<b>Hazard</b>	The product may release small quantities of formaldehyde in gaseous form. Emissions decrease through time as the panel's age. Manual or mechanical cutting or abrasion processes performed on the product may result in generation of wood dust.
<b>Routes of Entry</b>	Inhalation and contact with skin and eyes.
<b>Potential Acute Health Effects</b>	No test data exists on actual mixture. Listed below is the data available on the identified ingredients. May cause irritation to upper respiratory system, eyes and skin. If inhaled may cause difficulty in breathing, headache, rapid heart beat, nausea and loss of sense of smell.
<b>Potential Chronic Health Effects</b>	No test data exists on actual mixture. Listed below is the data available on the identified ingredients. <b>Formaldehyde</b> Carcinogenicity IARC (Group 1A)- Carcinogenic to Human ACGIH ( A2)- Suspected Human Carcinogen BC (K2)- A suspected human carcinogen <b>Wood Dust</b> Carcinogenicity IARC ( Group 1)- Carcinogenic to Human ACGIH (A1)- Certain hard woods, Confirmed Human Carcinogen BC (K1)- A Confirmed Human Carcinogen  For further information concerning toxic and hazardous information consult the MSDSs for formaldehyde and wood dust.
<b>See Toxicological Information (section 11)</b>	

**Section 4. First Aid Measures**

<b>Eye Contact</b>	Gaseous formaldehyde may cause temporary irritation or a burning sensation. Wood dust may cause mechanical irritation. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, holding lids apart to ensure flushing of each entire eye. Get medical attention immediately.
<b>Skin Contact</b>	Both Formaldehyde and various species of wood dust may cause allergic contact dermatitis in sensitized individuals. In case of contact, flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and footwear. Get medical attention if rash or persistent irritation or dermatitis occurs. Wash clothing before reuse.
<b>Inhalation</b>	Gaseous formaldehyde may cause temporary irritation to eyes, nose and throat. Depending on species, wood dust may cause respiratory sensitization and/or irritation. If inhaled, remove to fresh air. Get medical advice if persistent irritation, severe coughing or breathing difficulty occurs.
<b>Ingestion</b>	Not likely to occur.
<b>Notes to Physician</b>	Respiratory ailments or pre-existing skin conditions may be aggravated by exposure to wood dust.

**Section 5. Fire Fighting Measures**

<b>Flammability of the Product</b>	Flammable
<b>Auto-ignition Temperature</b>	204.44 to 260 C
<b>Flash Point</b>	Not available.
<b>Flammable Limits</b>	Higher: undetermined (varies with composition particle size, moisture level, rate of heating and dust concentration). Lower: 40 grams/m <sub>3</sub> (LEL) wood dust
<b>Products of Combustion</b>	Burning of wood products produces irritating and toxic emissions, including carbon dioxide, carbon dioxide, aldehydes and organic acids.



**Section 9. Fire Fighting Measures**

<b>Physical State and Appearance</b>	Solid	<b>Odor</b>	Dependent on wood species and time since panel was produced.
<b>Molecular Weight</b>	Not applicable	<b>Taste</b>	Not available
<b>Molecular Formula</b>	Not applicable	<b>Color</b>	Light to dark brown
<b>pH (1% Soln/Water)</b>	Basic		
<b>Boiling/Condensation Point</b>	Not available		
<b>Melting/Freezing Point</b>	Not applicable		
<b>Critical Temperature</b>	Not available		
<b>Specific Gravity</b>	Variable (dependent on wood species and moisture content)		
<b>Vapor Pressure</b>	Not applicable		
<b>Vapor Density</b>	Not available		
<b>Volatility</b>	Not available		
<b>Odor Threshold</b>	Not available		
<b>Evaporation Rate</b>	Not available		
<b>Water/oil dist. coefficient.</b>	Not applicable		
<b>Viscosity</b>	Not applicable		
<b>Ionicity (in Water)</b>	Not available		
<b>Dispersion Properties</b>	Not available		
<b>Solubility</b>	Insoluble in cold water, hot water.		

**Section 10. Stability and Reactivity**

<b>Stability and Reactivity</b>	The product is stable.
<b>Conditions of Instability</b>	Not available
<b>Incompatibility with Various Substances</b>	Wood dust can ignite if it comes in contact with strong oxidizing agents such as perchloric acid and nitric acids, and with strong acids such as sulfuric acid and if it comes in contact with drying oils such as linseed oil.
<b>Hazardous Decomposition Products</b>	Thermal and/or thermal oxidative decomposition can produce irritating and toxic fumes and gases, including carbon monoxide, aldehydes, organic acids and polynuclear aromatic compounds.
<b>Corrosivity</b>	Not applicable

**Section 11. Toxicological Information**

<b>Routes of Entry</b>	Inhalation and contact with skin and eyes.
<b>Chronic Effects on Humans</b>	No test data exists on the actual mixture. Listed below is the data available on wood dust and formaldehyde: Exposure to wood dust may cause asthmatic symptoms and signs. Chronic exposure to some species of wood and sensitivity of some worker's may cause the outbreak of some allergies that can become a potential health hazard to these individuals. Frequent or prolonged exposure to formaldehyde can cause hypersensitivity leading to contact dermatitis, possibly of an eczematous nature.
<b>Acute Effects on Humans</b>	No test data exists on the actual mixture.
<b>Skin Contact</b>	<b>CAUSES IRRITATION AND SENSITIZATION.</b> Dermatitis has been reported in humans, nature of the wood and origin of the dust has to be taken into consideration as well a exposure to formaldehyde.
<b>Skin Absorption</b>	No test data exists on the actual mixture.
<b>Eye Contact</b>	<b>CAUSES EYE IRRITATION.</b> Conjunctivitis has been reported in humans, nature of the wood and origin of the dust has to be taken into consideration. Exposure to formaldehyde may cause conjunctivitis and lacrymation.
<b>Ingestion</b>	Not applicable Not likely to occur.

Continued on Next Page

**Section 11. Toxicological Information**

<b>Inhalation</b>	<b>CAUSES IRRITATION AND SENSITIZATION.</b> No test data available on actual mixture. Data available on identified ingredients are listed below. Inhalation of wood dust may irritate the respiratory tract by causing: drying of the mucus, sneezing, irritating cough and expectoration. May cause some difficulty in breathing such as: bronchitis, nasal discharge, respiratory tract obstruction and more. May sensitize the respiratory system and cause asthmatic symptoms and signs. People with existing respiratory tract ailments, (e.g. bronchitis) should avoid exposures to wood dust as they may suffer severe irritation and difficulty in breathing. Some reports suggest that formaldehyde may cause respiratory sensitization, such as asthma, and pre-existing respiratory sensitization may be aggravated by exposure.
<b>Carcinogenic Effects</b>	No test data available on actual mixture. Data available on: <b>Formaldehyde</b> IARC (Group 1A)- Carcinogenic to Human ACGIH ( A2)- Suspected Human Carcinogen BC (K2)- A Suspected Human Carcinogen <b>Wood Dust</b> IARC (Group 1) Carcinogenic to Human ACGIH (A1) Certain hard woods-Confirmed Human Carcinogen BC (K1)- A Confirmed Human Carcinogen  Nasal carcinoma has been reported in furniture industries and an increase of Hodgkin's disease has been reported in other wood working industries especially in sawmill.
<b>Irritancy of product</b>	No test data available on the actual mixture.
<b>Sensitization</b>	No test data available on the actual mixture. Data available on identified ingredients demonstrate sensitization to upper respiratory system, eyes and skin.
<b>Teratogenicity</b>	Not available
<b>Mutagenicity</b>	No test data available on actual mixture. Data available on: <b>Wood dust</b> Exposure to wood dust may cause cellular changes in the nasal epithelium.
<b>Reproductive Effects</b>	No test data exists on the actual mixture.

**Section 12. Ecological Information**

<b>Ecotoxicity</b>	Not available
<b>BOD<sub>5</sub> and COD</b>	Depending on the kind of wood
<b>Products of Biodegradation</b>	Depending on the kind of wood Possibly hazardous short term degradation products are unlikely. Long term degradation products may arise due to formaldehyde.
<b>Toxicity of the Products of Biodegradation</b>	Not available
<b>Special Remarks on the Environment</b>	Biodegradation of the wood may lower oxygen levels in water which may be hazardous to aquatic life.

**Section 13. Ecological Information**

<b>Waste Information</b>	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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**Section 14. Transport Information**

<b>Classification</b>	Not applicable
<b>PIN</b>	Not applicable
<b>Special Provisions for Transport</b>	None

**Section 15. Regulatory Information**

<b>U.S. Federal Regulations</b>	The product is not controlled under the US Hazard Communication Rule (29 CFR 1900.1200).
<b>Canadian Regulations</b>	The product is not controlled under WHMIS. It has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.
<b>Other Regulations</b>	Not applicable

**Section 16. Other Information**

<b>Other Special Considerations</b>	The 16 heading format MSDS complies with WHMIS criteria and follows the structure set forth by ANSI Z400.1-1998.
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Validated by Norbord Inc. on 03/28/2007

Printed: 03/28/2007

**Notice to Reader**

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