

| <b>Section 1. Chemical Product and Company Identification</b>  |  |
|--|--|
| <b>Common Name</b> <b>NORBORD OSB BOARD</b>  | <b>Chemical name</b> Not Applicable        |
| <b>Supplier/ Manufacturer</b><br>Norbord Inc.<br>1 Toronto Street, Suite 600<br>Toronto, Ontario<br>M5C 2W4  | <b>Chemical formula</b> Not Applicable     |
| <b>Synonym</b> Not available   | <b>CAS #</b> Mixture                       |
| <b>Trade name</b><br>Norbord OSB Board, Norbord Tall Wall Board, Norbord Windstorm Board, Norbord Stabledge Board, Norbord Solar Board, Norbord TruFlor Board.   | <b>Validation Date</b> 08/07/2008          |
| <b>Product description</b><br>This panel product contains hardwood and/or softwood strands bonded with resin (phenol formaldehyde copolymer) and wax. Solar Board is a heat-reflecting aluminum foil laminated onto one side of OSB (Oriented Strand Board) board. | <b>Print Date</b> 08/07/2008               |
| <b>Material Uses</b> For industrial and commercial uses.   | <b>Responsible Name</b> Norbord Inc.       |
|  | <b>In Case of Emergency</b> (514) 341-2469 |

| <b>Section 2. Composition and Information on Ingredients</b> |                |             |      |      |  |
|--|----------------|-------------|------|------|--|
| Name   | CAS #          | % by Weight | LD50 | LC50 | Exposure Limits  |
| Hardwood<br>(e.g., aspen, sweet gum, etc.)                   | Not Applicable | 95          |      |      | <b>ACGIH (2008)</b><br>1 mg/m <sup>3</sup> TWA A4<br>Inhalable Dust<br><b>OSHA PEL</b><br>15 mg/m <sup>3</sup> TWA Total Dust<br>5 mg/m <sup>3</sup> Respirable Dust<br><b>Ontario</b><br><b>OEL-reg 833 (2005)</b><br>5 mg/m <sup>3</sup> TWAEV<br>Total Dust<br><b>BC reg 296-97 (1997)</b><br>Non-allergenic<br>1 mg/m <sup>3</sup><br>K1, A<br><b>RQMT (Quebec) (2001)</b><br>5 mg/m <sup>3</sup> TWA Total Dust |
| Or<br>Softwood<br>(Southern Yellow Pine)                     | Not Applicable | 95          |      |      | <b>ACGIH (2008)</b><br>1 mg/m <sup>3</sup> TWA A4<br>Inhalable Dust<br><b>OSHA PEL</b><br>15 mg/m <sup>3</sup> TWA Total Dust<br>5 mg/m <sup>3</sup> Respirable Dust<br><b>Ontario</b><br><b>OEL-reg 833 (2005)</b><br>3 mg/m <sup>3</sup> TWAEV<br>Total Dust<br><b>BC reg 296-97 (1997)</b><br>Non-allergenic<br>2.5 mg/m <sup>3</sup> K1<br><b>RQMT (Quebec) (2001)</b><br>5 mg/m <sup>3</sup> TWA Total Dust     |

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

|   |               |           |  |  |  |
|---|---------------|-----------|--|--|--|
| Phenol<br>Formaldehyde<br>Resin Solids<br>(less than 0.01% of<br>free formaldehyde) | Not Available | 1-4       |  |  | <b>No Exposure Limit Value</b>   |
| Paraffin Wax<br>Emulsion  | 8002-74-2     | 0.1 - 1.0 |  |  | <b>ACGIH (2006)</b><br>2 mg/m <sup>3</sup> TWA<br><b>Ontario</b><br><b>OEL-reg 833 (2005)</b><br>2 mg/m <sup>3</sup> TWAEV Total<br><b>BC reg 296-97 (1997)</b><br>2 mg/m <sup>3</sup> TWA<br>6 mg/m <sup>3</sup> STEL<br><b>RQMT (Quebec) (2001)</b><br>2 mg/m <sup>3</sup> TWA           |
| Aluminum Foil<br>(Solar Board Only)   | 7429-90-5     | <1        |  |  | <b>ACGIH (2006)</b><br>10 mg/m <sup>3</sup> TWA<br><b>OSHA PEL</b><br>15 mg/m <sup>3</sup> TWA Total<br>5 mg/m <sup>3</sup> Respirable<br><b>Ontario</b><br><b>OEL-reg 833 (2005)</b><br>10 mg/m <sup>3</sup> TWAEV Total<br><b>RQMT (Quebec) (2001)</b><br>10 mg/m <sup>3</sup> TWA Total |

**Section 3. Hazards Identification**

|   |  |
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| <b>Hazard</b>                                     | Manual or mechanical cutting or abrasion processes performed on the OSB board may result in generation of wood dust and aluminum dust (Solar Board only).  |
| <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.  |
| <b>Potential Chronic Health Effects</b>           | No test data exists on actual mixture. Listed below is the data available on the identified ingredients.<br><b>Wood Dust</b><br>Carcinogenicity<br>IARC ( Group 1)- Carcinogenic to Humans<br>ACGIH (A1)- Certain hard woods, Confirmed Human Carcinogen<br>BC (K1)- A Confirmed Human Carcinogen<br><br>For further information concerning toxic and hazardous information consult the MSDSs for wood dust. |
| <b>See Toxicological Information (section 11)</b> |  |

**Section 4. First Aid Measures**

|                           |   |
|---------------------------|---|
| <b>Eye Contact</b>        | Wood dust may cause mechanical irritation.<br>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>       | Various species of wood dust may cause allergic contact dermatitis in sensitized individuals.<br>In case of contact, flush skin with plenty of water for at least 15 minutes.<br>Remove contaminated clothing and footwear.<br>Get medical attention if rash or persistent irritation or dermatitis occurs. Wash clothing before reuse. |
| <b>Inhalation</b>         | Depending on species, wood dust may cause respiratory sensitization and/or irritation.<br>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**

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|--|---|
| <b>Flammability of the Product</b>                         | Flammable   |
| <b>Auto-ignition Temperature</b>                           | 204 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).<br>Lower: 40 grams/m <sup>3</sup> (LEL) wood dust.  |
| <b>Products of Combustion</b>                              | Burning of wood products produces irritating and toxic emissions, including carbon dioxide, carbon monoxide, aldehydes and organic acids.   |
| <b>Fire Hazards in Presence of Various Substances</b>      | There is risk of fire when fine dust particles come in contact with a source of ignition as heat or flame.  |
| <b>Explosion Hazards in Presence of Various Substances</b> | Dust explosion is strongly possible if dust concentrations rise to critical values (above 40 grams/m <sup>3</sup> ) and if there is a source of ignition present (flame, heat, static discharge, etc.). May explode when in contact with strong acids and oxidants. |
| <b>Sensitivity/mechanical impact</b>                       | Not available   |
| <b>Sensitivity/static discharge</b>                        | Not available.  |
| <b>Fire Fighting Media and Instructions</b>                | Use water spray or carbon dioxide when fighting fires involving this material. Use dry sand or earth to smother fire.   |

**Section 6. Accidental Release Measures**

|                       |   |
|-----------------------|---|
| <b>Spill and Leak</b> | Sweep or vacuum and avoid creating airborne dust conditions. Remove ignition source and provide good ventilation where dust conditions may occur. Place recovered wood dust in a container for proper disposal. |
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**Section 7. Handling and Storage**

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|------------------------|--|
| <b>Precautions</b>     | Avoid any source of heat and avoid creating "clouds" of dust which can be source of fire and explosion.<br>Wash thoroughly after handling. Wash clothing before reuse.<br><b>AVOID CONTACT WITH EYES AND SKIN. AVOID BREATHING DUST.</b> |
| <b>Storage</b>         | Store away from incompatibles. Keep in a cool and dry area. Keep away from any ignition source.  |
| <b>Incompatibility</b> | Avoid contact with oxidizing agents and drying oils. Avoid open flame.   |

**Section 8. Exposure Controls/Personal Protection**

|                             |  |
|-----------------------------|--|
| <b>Engineering Controls</b> | For reducing exposure to below recommended exposure limits, methods include mechanical ventilation using diluting or control of process, and process conditions or personal enclosure. System design should consider nature of contaminants and any explosive characteristics. Eyewash stations are recommended.   |
| <b>Personal Protection</b>  | <b>Eyes</b> <b>Not required if no transformation is performed on the product. AVOID CONTACT WITH EYES*.</b><br>Use safety glasses with side shields or dust resistant safety goggles if manual or mechanical cutting or abrasion processes is performed on the product.<br>*For more details refer to CSA Standard Z94.3-M88 "Industrial Eye and Face Protection".   |
|                             | <b>Bod y</b> <b>Not required if no transformation is performed on the product. AVOID CONTACT WITH SKIN.</b><br>Coverall is recommended if manual or mechanical cutting or abrasion processes is performed on the product.<br>Remove and wash dust contaminated clothing before reuse.  |
|                             | <b>Res piratory</b> <b>Not required if no transformation is performed on the product. AVOID BREATHING DUST.</b><br>When engineering controls and work practices are not effective in controlling exposure to recommended exposure limits, wear suitable respiratory protection. If respirator required, use an appropriate NIOSH/MSHA approved device, and institute comprehensive program as per CSA Z94.4-M1984. |
|                             | <b>Hands</b> <b>AVOID CONTACT WITH SKIN.</b><br>Wear leather work gloves to protect skin against mechanical irritation and splinters.  |
|                             | <b>Feet</b> Not applicable<br>As determined by normal job requirements.  |

Consult Section 2 for acceptable exposure limits.

**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 : 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 health hazard to these individuals.  |
| <b>Acute Effects on Humans</b>   | No test data exists on the actual mixture.  |
| <b>Skin Contact</b>              | <b>CAUSES IRRITATION AND SENSITIZATION.</b><br>Dermatitis has been reported in humans, nature of the wood and origin of the dust has to be taken into consideration as well as the exposure to formaldehyde during cutting or sanding operations of this product. However, because the quantity of resin in this product is very small, the risk of exposure to formaldehyde during cutting and sanding operations must be considered of very low.  |
| <b>Skin Absorption</b>           | No test data exists on the actual mixture.  |
| <b>Eye Contact</b>               | <b>CAUSES EYE IRRITATION.</b><br>Conjunctivitis has been reported in humans, nature of the wood and origin of the dust has to be taken into consideration.  |
| <b>Inhalation</b>                | <b>CAUSES IRRITATION AND SENSITIZATION.</b><br>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 and respiratory tract obstruction. May sensitize the respiratory system and cause asthmatic symptoms and signs.<br>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.<br>Some reports suggest that formaldehyde may cause respiratory sensitization, such as asthma, and pre-existing respiratory sensitization may be aggravated by exposure. However, because the quantity of resin contained in this product is very small, the risk of exposure to formaldehyde during cutting and sanding operations must be considered of very low. |
| <b>Ingestion</b>                 | Not applicable<br>Not likely to occur.  |
| <b>Irritancy of product</b>      | No test data available on the actual mixture.   |
| <b>Sensitization</b>             | No test data available on the actual mixture.   |
| <b>Carcinogenic Effects</b>      | No test data available on the actual mixture.<br>Data available on:<br><b>Formaldehyde</b><br>IARC ( Group 1) Carcinogenic to Humans<br>ACGIH (A2) Suspected Human Carcinogen<br>BC (K2) Suspected Human Carcinogen<br><b>Wood Dust</b><br>IARC ( Group 1) Carcinogenic to Humans<br>ACGIH (A1) Certain hard woods - Confirmed Human Carcinogen<br>BC (K1)- Confirmed Human Carcinogen<br><br>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.  |

**Section 11. Toxicological Information**

|                             |  |
|-----------------------------|--|
| <b>Teratogenicity</b>       | Not available  |
| <b>Mutagenicity</b>         | No test data available on actual mixture.<br>Data available on:<br><b>Wood dust</b><br>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<br>Possibly hazardous short term degradation products are unlikely.<br>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**

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|--------------------------|--|
| <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.<br>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**

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|-------------------------------------|--|
| <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 08/07/2008**

**Printed: 08/07/2008**

**Notice to Reader**

*The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable Federal, State and Local laws and regulations. Norbord makes no warranty of any kind, express or implied, concerning the accuracy or completeness of the information and data herein. Norbord will not be liable for claims relating to any party's use of, or reliance on, information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading. It is incumbent upon the user to obtain the most up-to-date information.*