Product: Hardwood Plywood Underlayment
Trade Name: UltraplyXL® Premium Underlayment
Description: Hardwood veneers bonded together using marine grade glue

Plywood Fact sheet is for products that have not been finish coated, Laminated, overlaid, or treated. For example, preservation and/or fire retardant.

## Composition of Ingredients

<table>
<thead>
<tr>
<th>Chemical Name/Synonyms</th>
<th>Percentage</th>
<th>OSHA PEL</th>
<th>OSHA STEL</th>
<th>ACGIH TLV-TWA</th>
<th>ACGIH TLV-STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardwood Dust:</td>
<td>0 – 11 %</td>
<td>5 mg/m3</td>
<td>10 mg/m3</td>
<td>5 mg/m3</td>
<td>5 mg/m3</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>Trace &lt;0.05%</td>
<td>0.05 ppm</td>
<td>0.05 ppm</td>
<td>N/A</td>
<td>0.05 ppm (C)</td>
</tr>
</tbody>
</table>

### Note:

- **OSHA**: Occupational Safety & Health Administration
- **ACGIH**: American Conference of Governmental Industrial Hygienists
- **PEL**: Permissible Exposure Limit
- **TLV**: Threshold Limit Value
- **Wood Dust**: Particles generated by any manual or mechanical cutting abrasion process performed on wood
- **Formaldehyde**: Most hardwood plywood is bonded with phenol-formaldehyde resign. Products may release very small quantities of formaldehyde (Trace <0.05%)

### Physical Data

- **Boiling Point**: N/A
- **Specific Gravity (H2O=1)**: 0.40 – 0.80
- **Vapor Density**: N/A
- **% Volatile By Volume**: N/A
- **Melting Point**: N/A
- **Vapor Pressure**: N/A
- **Solubility in H2O % by Weight**: 0.1%
- **Evaporation Rate**: N/A
- **PH**: N/A
- **Appearance**: Light Color

### Fire and Explosion Data

- **Flash Point**: N/A
- **Auto Ignition**: N/A (Will depend upon duration of exposure to heat source and other variables)
- **Explosive Limits in air**: See below “Unusual fire and explosion hazards”
- **Extinguishing Media**: Water, Carbon Dioxide, Sand
- **Special Fire fighting Precautions**: None
- **Unusual Fire and Explosion hazards**: Sawing, Machining, or sanding can produce sawdust as a by-product, which may present an explosion hazard if a dust cloud contacts an ignition source. An airborne concentration of 40 grammes of dust per cubic meter of air is often used as LEL for wood

### Reactivity Data

- **Hazardous Polymerization**: N/A
- **Conditions contributing to instability**: Stable under normal conditions
- **Incompatibility**: Avoid contact with oxidizing agents. Avoid open flame. Product may ignite in excess of 400 degrees Fahrenheit.
- **Stable Composition Conditions to Avoid – N/A**: Thermo oxidative degeneration of wood produces irritating and toxic fumes and gasses including CO, aldehydes, and organic acids.

### Inhalation

- **Wood Dust**
  - May cause nasal dryness, irritation and obstruction. Coughing, wheezing and sneezing; sinusitis and prolonged colds have also been reported. Wood dust, depending on species, may cause dermatitis on prolonged, repetitive contact; 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 cancer of the oropharynx, hypopharynx, lung lymphatic and hematopoietic system, stomach, colon, or rectum with exposure to wood dust.

### Disclaimer:

This MSDS is intended to be used solely for safety education and not for use as specifications or warranties. The information in this MSDS is provided without any representation or warranties regarding the accuracy or correctness. Since the handling, storage and use are beyond our control, Moreland Company USA assumes no responsibility and disclaims liability for any loss, damage, or expense arising there from.

11/18/2014
Health Effects Information (Exposure Limits)

<table>
<thead>
<tr>
<th>Substance</th>
<th>OSHA PEL – TWA: 0.05 ppm</th>
<th>OSHA PEL – STEL: 0.05 ppm</th>
<th>ACGIH TLV – CEILING: 0.05 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood Dust</td>
<td>OSHA 1989 PEL – TWA: 5 mg/m³</td>
<td>OSHA 1989 PEL – STEL: 10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde Emission</td>
<td>Allowed value 0.1 ppm. Measured value with this product &lt; 0.05 ppm (According to standard EN 120)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Eye Contact

- Wood dust can cause mechanical irritation

Skin Contact

- Various species of wood dust may evoke allergic contact dermatitis in sensitive individuals.

Burning

- According to the ISO/DIS 5660 tests, the toxicity index of fire effluents was small, but there are compounds in smoke gases, which can cause irritation to eyes, nose and throat.

Ingestion

- Not likely to happen.

Precautions and Safe Handling

- **Heat**
  - In higher temperature (>212 degrees Fahrenheit) there may build up noxious gasses. Then provide good ventilation.

- **Wood Dust**
  - Avoid dusty conditions and provide good ventilation

- **Ventilation**
  - Provide adequate general and local exhaust ventilation to keep airborne contaminate concentration levels below the OSHA PELS.

- **Personal Protective Equipment**
  - Wear goggles or safety glasses when manufacturing or machining the product. Wear NIOSA/MSHA approved respirator when the allowable exposure limits may be exceeded. Other protective equipment such as gloves and outer garments may be needed depending on dust conditions.

Emergency and First Aid Procedures

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eyes</strong></td>
<td>Flush eyes with large amounts of water. Remove to fresh air. If irritation persists, get medical attention.</td>
</tr>
<tr>
<td><strong>Skin</strong></td>
<td>Wash affected areas with soap and water. Get medical advice if rash or persistent irritation or dermatitis occurs</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>Remove to fresh air. Get medical advice if persistent irritation, severe coughing or breathing difficulty occurs</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>N/A</td>
</tr>
</tbody>
</table>

Disclaimer: This MSDS is intended to be used solely for safety education and not for use as specifications or warranties. The information in this MSDS is provided without any representation or warranties regarding the accuracy or correctness. Since the handling, storage and use are beyond our control, Moreland Company USA assumes no responsibility and disclaims liability for any loss, damage, or expense arising there from. This is offered for your consideration, investigation and verification. Due to possible technical changes it is incumbent upon the user to obtain the most up-to-date information.

---

**UltraplyXL® Premium Underlayment**

Moreland Company USA  
1617 S. Tuttle, 3rd Floor  
Sarasota, FL 34239  
(941) 953-9663

www.ultraplyxl.com

11/18/2014