Material Safety Data Sheet

Wood Veneer Product

IDENTIFICATION:

Product Names: Marine Plywood – AS/NZS 2272
Exterior Plywood – AS/NZS 2271
Interior Plywood – AS/NZS 2270
Bracing – AS/NZS 2269
Raw Ply IHPA/JPIC

UN Number: Non Allocated
Dangerous Goods Class: None allocated
Hazchem Code: None allocated
Poisons Schedule: None allocated
Use: Residential, commercial, industrial and marine construction, furniture and/or general purpose building material

PHYSICAL DESCRIPTION / PROPERTIES

Appearance: The products are manufactured as pressed boards ranging in thickness from 2.7mm to 32mm. They are constructed from Tropical Forest Hardwoods, which are bonded together with resin.

Odour: No distinctive odour. Newly manufactured plywood and freshly machined surfaces tend to have the odour of the wood species from which the plywood is manufactured.

Boiling Point: Not applicable
Vapour Pressure: Not applicable
Vapour Density: Not applicable
Melting Point: Not applicable
Solubility in Water: Highly insoluble
Flashpoint: Not applicable
Specific Gravity: 0.50 – 1.00
Flammability in air: Fine airborne wood dust, generated during machining of the product, can spontaneously ignite.

Auto Ignition Temperature: >200°C

INGREDIENTS

<table>
<thead>
<tr>
<th>Substance/Chemical Entity</th>
<th>CAS No.</th>
<th>Proportion by weight</th>
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<tbody>
<tr>
<td>Wood Veneer</td>
<td>None</td>
<td>&gt;90 – 95%</td>
</tr>
<tr>
<td>Phenol formaldehyde resin</td>
<td>40798-65-0</td>
<td>&lt;8%</td>
</tr>
<tr>
<td>Melamine urea formaldehyde resin</td>
<td>25036-13-9</td>
<td>&lt;8%</td>
</tr>
<tr>
<td>or Urea formaldehyde</td>
<td>9011-05-6</td>
<td>&lt;8%</td>
</tr>
</tbody>
</table>

Note: The wood veneer and the resins are bonded together under heat and pressure. The process cures the resin, however small amounts of formaldehyde may be released from the finished product. In newly manufactured plywood, formaldehyde emission has been measured in the range 0.03 – 0.5ppm using the large scale chamber test method.
HEALTH HAZARD INFORMATION

Health Effects: Plywood is not classified as hazardous, however handling panel edges and surfaces may cause splinters.
Known healthy effects are:

Cured Resin: The cured resin is inert and not likely to contribute to health effects

Formaldehyde: Formaldehyde is a naturally occurring gas that is irritating to the nose, throat, eyes, and skin at high concentrations. It is recommended that storage areas be well ventilated to avoid any irritations due to a buildup of formaldehyde. The International Agency for Research on Cancer (IARC), a division of the World Health Organization has reclassified formaldehyde from a group 2A suspected carcinogen to a known carcinogen. (Cancer causing properties of formaldehyde are only evident at very high concentrations, hundreds of times greater than levels emitted from plywood products)
Where goods are stocked/handled in well ventilated storage areas and work places, the concentration of formaldehyde in the air will not exceed the World Health Organization standard of 0.1ppm for the general environment. This is below the Worksafe Australia occupational Exposure Standard of 1.0ppm on a time weighted average (TWA).
Sealing the plywood with paint, varnish or other surface finishes further reduces any emissions.
As veneer products have emission levels of 0.03 to 0.50ppm (standard E1 to Japanese standards) and well below WHO recommendations of 0.1ppm, it is unlikely that the presence of traces of formaldehyde on the product poses a health risk.

Wood dust: When the boards are machined (sawn, sanded, drilled, planed etc) wood dust is produced. Wood dust and splinters may cause irritation to the nose, throat, eyes and skin. The wood dusts may also be a sensitizer and some people may develop allergic dermatitis or asthma. Inhalation of wood dust may increase the risk of nasal and Para nasal sinus cancers. Exposure to the wood dust produced through machining may result in the following health effects:

Acute:
Ingestion: Unlikely to occur, however swallowing wood dust may result in abdominal discomfort
Eyes: The wood dust may be irritating to the eyes causing discomfort and redness
Skin: The wood dust may be irritating to the skin, resulting in itching and on occasions, a red rash. Allergic contact dermatitis may occur.
Inhaled: The wood dust may irritate the throat and lungs especially in people with upper respiratory tract or chest complaints. Asthma may occur.

Chronic:
Repeated exposures to uncontrolled wood dust from these boards over many years may increase the risk of allergies, dermatitis, asthma or chronic nose or throat irritation in some people, the risk of nasal or Para nasal sinus cancers may also be increased. If the workplace practices noted in this MSDS are followed, no chronic health effects are anticipated.

First Aid:
Swallowed: Rinse mouth with water and give water to drink. If abdominal discomfort occurs, seek medical advice.
Eye: Flush with flowing water for at least 15 minutes and if symptoms persist, seek immediate medical attention. Contact lenses to be removed.
Skin: Wash with mild soap and running water
Inhaled: Move from dust affected area to fresh air.
Advice to Doctor: Treat symptomatically
PRECAUTIONS FOR USE

Exposure Standards:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>OSH New Zealand</th>
<th>Worksafe Australia</th>
</tr>
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<tbody>
<tr>
<td>Wood Dust</td>
<td>5mg/m³ time weighted average (TWA)</td>
<td>5mg/m³ time weighted average (TWA) 10mg/m³ short term exposure limit (STEL)</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>1.0ppm(1.2mg/m³) time weighted average (TWA) 2.0ppm (2.5mg/m³) short term exposure limit (STEL)</td>
<td>1.0ppm(1.2mg/m³) time weighted average (TWA) 2.0ppm (2.5mg/m³) short term exposure limit (STEL)</td>
</tr>
</tbody>
</table>

Wood dust is also listed as a sensitizer and the Exposure standard is under review. In the interests of maintaining a safe working environment, it is recommended that workplace exposures to wood dust should not exceed 1.0mg/m³ time weighted average (TWA)

Engineering Controls: All work with these boards should be carried out in such a way as to minimize the generation of wood dust. Under factory conditions, machining should be done with equipment fitted with exhaust devices capable of removing wood dust at the source. Hand power tools should be fitted with dust bags. Work areas should be well ventilated. They should be cleaned at least daily, and wood dust should be removed by vacuum cleaning or by wet sweeping.

Skin Protection: Wear loose, comfortable clothing. Long sleeved shirts, trousers and comfortable work gloves (AS2161) should be worn if skin irritation occurs and to minimize risk of splinters. After handing boards, wash with a mild soap and water. Do not scratch or rub the skin if it becomes irritated. Wash work clothes regularly and if possible separate from other clothes.

Respiratory Protection: If wood dust exposures are not controlled when machining (sawing, routing, planning, drilling, sanding, etc) a class P1 or P2 replaceable filter or disposable face piece respirator should be worn. Respirators should comply with AS/NZS1716, and be selected, used and maintained in accordance with AS/NZS1715.

Eye Protection: Safety glasses or non-fogging goggles (AS/NZS1337) should be worn when machining.

Flammability: These boards are flammable but difficult to ignite. Avoid a buildup of wood dust and keep all storage and work areas well ventilated. Avoid sources of radiant heat and flame and avoid sparks and sources of ignition in all electrical equipment, including dust extraction equipment. People must not smoke in storage or work areas.

SAFE HANDLING INFORMATION

Storage and transport: Boards should be stored in well ventilated areas away from sources of heat, flames or sparks. No special transport requirements are considered necessary

Spills and Disposals: Off-cuts and general waste material should be placed in containers and disposed of at approved landfill sites, or burnt in an approved furnace or incinerator, in accordance with disposal authority guidelines. Wood dust should be cleaned up by vacuuming or wet sweeping.

Fire / Explosion Hazard: Early fire hazard properties are determined in accordance with AS1530 Part3

<p>| Ignitability Index: | 14 |
| Spread of Flame Index: | 7-8 |
| Heat Evolved Index: | 8-10 |</p>
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<tr>
<th>Smoke Developed Index:</th>
<th>2-3</th>
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<tbody>
<tr>
<td>Burning or smoldering boards or wood dust can generate carbon dioxide and other pyrolysis products typical of burning organic material. Dry wood dust in high concentrations can be explosive. Use water or dry chemical fire extinguishers.</td>
<td></td>
</tr>
<tr>
<td>Smoking:</td>
<td>Storage and work areas should be smoke free</td>
</tr>
</tbody>
</table>

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