Material Safety Data Sheet

"AUSTRAL" PLYWOOD

WOOD VENEER PRODUCT

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA

IMPORTANT NOTICE: This Material Safety Data Sheet (MSDS) is written by AUSTRAL PLYWOODS PTY LTD in accordance with Worksafe Australia Guidelines. As such, the information contained herein must not be altered, deleted or added to. Austral Plywoods will issue a new MSDS when there is a change in product specifications and/or Worksafe Australia guidelines/regulations. Austral Plywoods will not accept responsibility for any changes made to its MSDS in content by any other person.

IDENTIFICATION:

Product Name:     "Austral" Structural Plywood - AS/NZS 2269
                  "Austral" Marine Plywood - AS/NZS 2272
                  "Austral" Exterior Plywood - AS/NZS 2271
                  "Austral" Interior Plywood - AS/NZS 2270

UN Number:        None allocated

Registered Trade Name:  "Austral"

Dangerous Goods Class: None allocated

Hazchem Code:        None allocated

Poisons Schedule:    None allocated

Use:                Residential, commercial, industrial and marine
                    construction, furniture and fitments and/or general purpose building material.

PHYSICAL DESCRIPTION/PROPERTIES

Appearance:

The products are manufactured as pressed boards ranging in standard thickness from 1.5mm to 50mm. They are made from Hoop pine veneers, with in some cases a decorative wood overlay, 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 dust, generated when the product is machined, can ignite spontaneously.

**Auto Ignition Temperature:** >220 C

### Ingredients:

<table>
<thead>
<tr>
<th>Substance/Chemical Entity</th>
<th>CAS No.</th>
<th>Properties by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood veneer</td>
<td>None</td>
<td>&gt;92%</td>
</tr>
<tr>
<td>Phenol formaldehyde resin</td>
<td>40798-65-0</td>
<td>&lt;8%</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melamine urea formaldehyde resin</td>
<td>25036-13-9</td>
<td>&lt;8%</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urea formaldehyde</td>
<td>9011-05-6</td>
<td>&lt;8%</td>
</tr>
</tbody>
</table>

**NOTE:**

The above ingredients 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, which is the worst case scenario, formaldehyde emission has been measured in the range 0.03-0.05ppm using the large scale test chamber method.

### HEALTH HAZARD INFORMATION

**Health Effects**

**Plywood is not classified as hazardous according to criteria of Worksafe Australia.**

In well ventilated storage areas and work places, utilising these products, the concentration of formaldehyde in the air will not exceed the World Health Organisation standard of 0.1ppm for the general environment and it will be well below the Worksafe Australia occupational Exposure Standard of 1.0ppm on a time weighted average (TWA).

Sealing plywood with paint, varnish or other surface finishes further reduces any emissions.

The known health effects of the constituents of the boards are as follows:

**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 irritating effects of a build-up 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.)

Testing by the Engineered Wood Panel Association of Australasia has shown that formaldehyde emissions from phenolic bonded EWPAA certified products to be consistently very low and in fact many times lower than the typical indoor background formaldehyde level of 0.03ppm and hundreds of times lower than the Worksafe Australia 8 hr time weighted average occupational exposure limit of 1.0ppm and the 15 minute short term exposure limit of 2.0ppm. At this very low level the significant majority of formaldehyde measured has been emitted naturally from the timber itself through a natural ageing process which occurs when timber is exposed to oxygen. It is unlikely that the presence of traces of formaldehyde in the product poses a health risk.

**Wood Dust:**

When the boards are machined (sawn, sanded, drilled, routed, planed, etc.) wood dust is produced. Wood dust and splinters may cause irritation of the nose and throat, eyes and skin. Some woods may also be sensitisers, and some people may develop allergic dermatitis or asthma. Inhalation of wood dust, both hardwood and softwood, may increase the risk of nasal and paranasal sinus cancers.

**Exposure to the wood dust produced from machining the boards may result in the following health effects:**

**Acute:**

- **Swallowed:** Unlikely to occur, but swallowing the 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 irritate the skin, resulting in itching and occasionally 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 over many years to uncontrolled wood dust from these boards may increase the risk of allergic dermatitis, asthma or chronic nose or throat irritation in some people. The risk of nasal or paranasal sinus cancers may also be increased. If the work practices noted in this MSDS are followed, no chronic health effects are anticipated.

**First Aid:**

**Swallowed:** Drink a glass of water.
Eye: Flush with flowing water for at least 15 minutes and if symptoms persist seek immediate medical attention.

Skin: Wash with mild soap and running water.

Inhaled: Leave the dusty area.

Advice to Doctor: Treat symptomatically.

PRECAUTIONS FOR USE

Exposure Standards:

The Worksafe Australia Exposure Standards for softwood (e.g. pine) dust, published in October 1991, are:

- 5 mg/m$^3$ time-weighted average (TWA)
- 10 mg/m$^3$ short term exposure limit (STEL)

Wood dust is also listed as a sensitiser 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 1.0 mg/m$^3$ TWA.

Engineering Controls:

All work with these boards should be carried out in such a way as to minimise 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 the wet sweeping method.

Skin Protection:

Wear loose, comfortable clothing. Long-sleeved shirts, trousers and comfortable work gloves (AS2161) should be worn if skin irritation occurs.

After handling boards, wash with 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, planing, drilling, sanding, etc.) a class P1 or P2 replaceable filter or disposable facepiece 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 build-up 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:
The boards should be stored in well ventilated areas away from source 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 Part 3.

**Ignitability Index**
- 14

**Spread of Flame Index**
- 8

**Heat Evolved Index**
- 8-10

**Smoke Developed Index**
- 2-3

Burning or smouldering 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.

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