

Material Safety Data Sheet

Page 1 of 5

14th September 2019

IMPORTANT NOTICE: This Material Safety Data Sheet (MSDS) is written by L.T.M Corporation Pte Ltd (L.T.M) in accordance with Workplace Safety and Health Council Singapore Guidelines. As such, the information contained herein must not be altered, deleted or added to. L.T.M will issue a new MSDS when there is a change in product specifications and/or Workplace Safety and Health Council Singapore guidelines/regulations. L.T.M will not accept responsibility for any changes made to its MSDS in content by any other person.

Identification of material and supplier

Products: Film Faced Plywood

Supplier: L.T.M Corporation Pte Ltd

UN Number: None allocated

Registered Trade Name: Duroply Pro Plywood

Dangerous Goods Class: None allocated

Hazchem Code: None allocated

Poisons Schedule: None allocated

Uses: Formwork, residential, commercial, industrial and marine construction, furniture and fitments, bridges pedestrian walkways and/or general-purpose building materials.

PHYSICAL DESCRIPTION/PROPERTIES

Appearance:

The products are manufactured as pressed boards ranging in standard thickness 12mm and 18mm with 1220mm × 2440mm width & length. They are made from wood veneers of a range of species which are bonded together with thermos set adhesives.

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

Material Safety Data Sheet



INGREDIENTS:

Substance Chemical Entity	CAS No.	Properties by weight
Wood veneer	none	> 92.00%
Phenol formaldehyde resin	50-00-0	< 2.00%
Melamine formaldehyde	108-78-1	< 0.56%
Wheat Flour	none	< 2.00%
Urea	57-13-6	< 2.00%

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 emissions has been measured in the range 0.03-0.05ppm using the large scale chamber method.

HEALTH HAZARD INFORMATION

Health Effects:

This product, in its natural form, is not classified as hazardous according to the criteria of SINGAPORE WORKPLACE SAFETY AND HEALTH ACT (CHAPTER 354A, SECTION 65)

In well-ventilated storage areas and workplaces utilizing these products, the concentration of formaldehyde in the air will not exceed the World Health Organization standard of 0.1ppm for the general environment and it will be well below the Singapore Workplace Safety and Health Act occupational exposure standard of 0.3ppm 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 gas is irritating to the nose and throat, eyes and skin. It is recommended that storage areas be well ventilated to avoid any irritating effects of a build-up of formaldehyde.

Nanyang Technological University-Singapore, studies on formaldehyde have shown that it is linked to a higher risk of cancer and has been labeled as a Class 1 carcinogen- possibly carcinogenic to humans - on the basis of evidence that inhalation of gas caused nasal cancer in experiments.

As plywood products have emission levels of 0.03 to 0.05 ppm well below the WHO recommended level of 0.1 ppm, under reasonably foreseeable circumstances it is unlikely that the presence of traces of formaldehyde in the product poses any 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 sensitizers, and some people may develop allergic dermatitis or asthma. Inhalation of wood dust, both hardwood and softwood, may increase the risk of nasal and Para nasal sinus cancers.

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

Acute:

Ingestion: Unlikely to occur, but swallowing the wood dust may result in abdominal discomfort.

Eye: The wood dust may be irritating to the eyes causing discomfort and redness.

Skin contact: 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 exposure over many years to uncontrolled wood dust from these boards 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 work practices noted in this MSDS are followed, no chronic health effects are anticipated.

FIRST AID TREATMENTS

Ingestion: Drink a glass of water.

Eye: Flush with flowing water for at least 15 minutes, and if symptoms persist seek immediate medical attention.

Skin contact: Wash with mild soap and running water.

Inhaled: Leave the dusty area.

Advice to Doctor: Treat symptomatically.

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 the wet sweeping method.

Skin Protection:

Wear loose, comfortable clothing. Long-sleeved shirts, trousers and comfortable work gloves 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.

Material Safety Data Sheet

Page 4 of 5

14th September 2019

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 face piece respirator should be worn. Respirators should comply with proper standards, and be selected, used, and maintained in accordance with the appropriate standard.

Eye Protection:

Safety glasses or non-fogging goggles to meet should be worn when machining.

Pictograms:



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 for softwoods as 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

Material Safety Data Sheet



Page 5 of 5

14th September 2019

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 powder fire extinguishers.

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