

## Company Details

Head Office	Symonite Pty Ltd 2 Wella Way Somersby, NSW 2250
Telephone:	1300 300 641
Facsimile:	1300 300 642
Emergency Telephone:	Not Available

## Product Identification

Product Name:	<b>SymoniteHD</b>
Other Names:	Symonite
Manufacturers Product Code:	Not Applicable
UN Number:	Not Applicable
Dangerous Goods Class:	Not Applicable
Subsidiary Risk:	Not Applicable
Packaging Code:	Not Applicable
Hazchem Code:	Not Applicable
Poisons Schedule:	Not Applicable

## Use

*Heavy Duty* Composite Cladding material that can be used externally for facades on buildings and internally with many uses, including partition walls and interior dressing panels. Can also be used for signage, rescue vehicles and well suited for industrial type applications. Can be cut to size by a Tungsten Carbide tipped blade.

## Physical Description / Properties

Appearance:	The products are manufactured in sheet form and ranging in thickness 03mm to 25mm. Composite consisting of layers of phenol formaldehyde resin impregnated papers bonded to two metal faces under heat and pressure
Boiling Point:	Not Applicable
Vapour Pressure:	Not Applicable
Specific Gravity:	1.67-1.68
Flashpoint:	Not Applicable
Flammability Limits:	Not Applicable
Solubility in water:	Not Applicable

## Ingredients

Chemical / Generic Name:	CAS Number:	Proportion:
Aluminium Alloy	7429-90-5	30-60%
Phenol-Formaldehyde Resin	9003-35-4	30-60%
Cellulose Fibre	Not Available	30-60%
Free Phenol	108-95-2	≤0.12%
Free Formaldehyde	50-00-0	≤0.1%

Notes: The above ingredients are bonded together under heat and pressure. The process cures the resin and bonds all the layers of papers to form a flat sheet.

## Health Hazard Information

Formaldehyde gas may be released under some conditions. However, in well-ventilated storage areas and workplaces, the concentration of formaldehyde is unlikely to exceed the World Health Organisation standard of 0.1 ppm for the general environment and it will be well below the Worksafe Australia occupational Exposure Standard of 1.0 ppm. Laminate dust will be given off from machining the product, and gas and vapour may be produced from heat processing. The known health effects from laminate dust and formaldehyde are as follows:

### Laminate Dust

The laminate in their intact state do not release airborne dusts, gases or vapours. However when machining, dust and splinters may cause irritation of the nose and throat, eyes and skin. Some dust may also be sensitiser, and some people may develop allergic dermatitis or asthma. Inhalation of laminate dust may increase the risk of nasal and Para nasal sinus cancer.

### Formaldehyde

Formaldehyde gas and dilute solution of formaldehyde in water are irritating to the nose and throat, eyes and skin. The gas and solutions are also sensitisers and cases of allergic dermatitis and asthma have been reported. Formaldehyde has been evaluated by the International Agency for Research on Cancer (IARC) as group 2A, probably carcinogenic to humans. The IARC again evaluated formaldehyde in June 2004 and concluded that: "There are adequate data available from humans for an increased risk of nasopharyngeal cancer" and that formaldehyde should now be classified as Group 1, carcinogenic to humans.

*Worksafe Australia has listed Formaldehyde as Sensitiser and Category 2 carcinogen (probable human carcinogen) as "those substances for which there is sufficient evidence to provide a strong presumption that human exposure may result in the development of cancer. This evidence is generally based on appropriate long term animal studies, limited epidemiological evidence or other relevant information"*

Exposures to laminate dust produced from machining the products, and gas and vapour from heat processing with inadequate ventilation may result in the following health effects:

## Health Effects

### Acute

- Swallowed: Unlikely to occur, however swallowing the dust may result in abdominal discomfort. Particles released when machining SymoniteHD may cause tissue irritation.
- Eye: The dust, gas and vapour may be irritating to the eyes causing discomfort and redness. Particles may cause eye irritation.
- Skin: Contact with resin core or particles may irritate the skin. If the panel is heated during machining, contact with the metals may cause burns. Allergic dermatitis may occur and during handling sharp edges on the panel may cut the skin.
- Inhaled: Inhalation of particles may cause irritation of the respiratory tract.

### Chronic

Repeated exposure over many years to uncontrolled laminate dust may increase the risk of nasal cavity cancer. Inhalation of laminate dust may also increase the risk of lung fibrosis (scarring). There are also increased risks of respiratory and skin sensitisation from laminate dust and formaldehyde resulting in asthma and dermatitis respectively. But if the work practices noted in this MSDS are followed and exposure to airborne dust are kept to a minimum, no chronic health effects are anticipated

### First Aid

- Swallowed: Drink a glass of water. If irritation persists do not induce vomiting and seek immediate medical attention
- 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. Remove clothing contaminated with laminate dust. Seek medical attention if symptoms persist. For cuts, clean wound and apply antiseptic ointment, dress wound.
- Inhaled: Move patient to clear air. If irritation persists seek immediate medical attention
- First Aid Facilities: No data.

## Precautions for use

### Exposure Standards

The Worksafe Australia Exposure Standards, published in May 1995 are:

#### Wood based dust:

5 mg/cubic metre time-weighted average (TWA) measured as inspirable particulates.  
10 mg/cubic meter short term exposure limit (STEL)  
It is also listed as a sensitizer

#### Aluminium dust:

10mg/m<sup>3</sup> TWA (Work Safe Australia)

#### Formaldehyde:

1.0 ppm (1.2 mg/cubic metre) time-weighted average (TWA) 8 hours  
2.0 ppm (2.5 mg/cubic metre) short term exposure limit 15minutes (STEL). It is also listed as a sensitiser. Category 2 carcinogen (probable human carcinogen).

## Engineering Controls

All work with these laminates should be carried out in such a way as to minimise the generation of, and exposure to dust. Under factory conditions, sawing, drilling, sanding etc. should be done with equipment fitted with exhaust devices capable of removing wood dust, at source. Hand power tools should be fitted with dust bags and used in well-ventilated areas. Work areas should be well ventilated. They should be cleaned at least daily, and dust removed by vacuum cleaning or wet sweeping method.

## Personal Protection

- |                 |  |
|-----------------|--|
| Respirator:     | An approved respirator suitable for use against particulates (if cutting). The respirator should comply with AS1716 and should be used in accordance with AS1715.                    |
| Glove Type:     | The use of cotton gloves will reduce skin contact.   |
| Eye Protection: | Use of Safety Glasses selected in accordance with AS1336 and complying with AS1337 is recommended to protect against flying particles.   |
| Clothing:       | The use of long trousers and shirts with long sleeves are recommended to reduce skin contact. Loose fitting clothing is not recommended as it may become entangled in the machinery. |

## Flammability

*SymoniteHD is not flammable.*

These laminates are flammable but difficult to ignite. Fine airborne dust can ignite so avoid a build-up of 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.

### Fire performance

Country	Tested	Standard			Result
Australia	4mm	AS1530	Part 3	Ignitability Index (0-20) Flame Spread Index (0-10) Heat Evolved Index (0-10) Smoke Development Index (0-10)	0 0 0 0-1
UK	4mm	BS476	Part 6 Part 7	Class 0	
Singapore	4mm	BS476	Part 6 Part 7	Class 0 Code of Practice for Fire Precautions in buildings 1991	

## Safe Handling Information

### Storage and Transport

Storage areas should have adequate general ventilation, particularly in hot climates, to prevent high levels of Formaldehyde Gas. Aluminium will react with strong Alkalis, Halogenated solvents, Bromates, Iodides and/or Ammonium Nitrate.

Explosive Hydrogen may be generated in some cases. Aluminium may react vigorously with Copper, Lead or Iron Oxides in the presence of extreme heat or an ignition source.

### Spills and Disposal

Normally suitable for disposal with regular trade waste. Large quantities of Aluminium powder will react with water or incompatible chemicals to generate Hydrogen, with a resultant risk of explosion. Seek approval from the local authority prior to disposal in this case.

### Fire / Explosion Hazard

A class "D" Fire Extinguisher for Aluminium powder is recommended for a large facility dedicated to cutting SymoniteHD panels. Possible thermal decomposition products include Carbon Monoxide, Ammonia, and Oxides of Nitrogen. Additional decomposition products from painted SymoniteHD include Hydrofluoric Acid and other fluorides.

## Other Information

The need for hearing protection is recommended during cutting.

Fibre reinforced Phenolics are used extensively in military, aerospace and public transport applications.

## Contact Point

Symonite Pty Ltd  
(ABN 78 127 463 389)

**Head office:**

2 wella way, somersby nsw 2250

P 1300 300 641 f 1300 300 642

[sales@symonite.com.au](mailto:sales@symonite.com.au)

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