



THE **laminex** GROUP

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## **MATERIAL SAFETY DATA SHEET 107**

### **STATEMENT OF HAZARDOUS NATURE**

In its intact state, this product is classified as not hazardous according to the criteria of the National Occupational Health and Safety Commission (NOHSC). Dust from the product is hazardous according to the criteria of NOHSC.

### **Formica® High Pressure Laminates**

**IMPORTANT NOTICE:** This Material Safety Data Sheet (MSDS) is issued by The Laminex Group, in accordance with NOHSC guidelines. As such, the information contained herein must not be altered, deleted or added to. The Laminex Group will issue a new MSDS when there is a change in product specifications and/or NOHSC guidelines/regulations. The Laminex Group will not accept any responsibility for any changes made to its MSDS in content by any other person or organisation.

### **Section 1: PRODUCT IDENTIFICATION**

#### **Other Names:**

Formica® laminates, Formica® Chemtop, Formica® Aquapanel, Formica® Freeform, Formica® DecoMetal, Formica® ColorCore, Formica® Interlaminates, Formica® Backing boards, Formica® Laboratory grade, Formica® Premium laminates, Formica® Access flooring, Formica® Compact laminate, Formica® Fire retardant grade.

#### **Appearance:**

The products are manufactured as high pressure laminates, in sheet form and ranging in thickness from 0.5 mm to 30 mm. They are made from layers of resin-impregnated paper that are bonded together under heat and pressure.

#### **Odour Threshold:**

Newly manufactured and freshly cut surfaces may have a faint resin odour.

#### **Use:**

Decorative surfacing of furniture, cabinets, bench tops, walls, ceilings, floors and doors.

## Section 2: COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion	Exposure Limits NOHSC [1003(1995)]
Paper	None	60-75%	TWA = 10mg/m <sup>3</sup>
Paper – pigmented/dye	None	< 7%	TWA = 10mg/m <sup>3</sup>
Phenol formaldehyde resin	9003-35-4	< 35%	Formaldehyde: 1.0ppm
Melamine formaldehyde resin	9003-08-1	<3%	(1.2mg/m <sup>3</sup> ) TWA: 2.0ppm (2.5 mg/m <sup>3</sup> ) short term exposure limit STEL  sen – sensitiser; Cat 1 (carcinogenic to humans).
Plasticizers	None	2%	
Fire Retardant Compound	None	<2%	

Note:

- The above ingredients are bound together under heat and pressure. The process 'cures' the resin, which bonds with the other substances.

**AICS Status:** All components of the finished product are listed in AICS

## Section 3: HAZARDS IDENTIFICATION

**Note:** In its intact state this product is not classified as a hazardous substance by NOHSC. Exposures to dust produced from machining the laminates or gas and vapour from heat processing may result in the following health effects.

### Acute:

Swallowed: Unlikely to occur but swallowing the dust may result in abdominal discomfort.

Eye: The dust, gas and vapour may be irritating to the eyes causing discomfort and redness.

Skin: The dust, gas and vapour may irritate the skin, resulting in itching and occasionally a red rash. During handling sharp edges may cut the skin.

Inhaled: The dust, gas and vapour may irritate the nose, throat and lungs, especially in people with upper respiratory tract or chest complaints such as asthma.

Chronic: Repeated exposures over many years to uncontrolled dust, gas and vapour from these laminates may increase the risk of irreversible health effects including allergic dermatitis, asthma, chronic nose or throat irritation or lung scarring in some people. Formaldehyde has been evaluated by the International Agency for Research on Cancer (IARC) as group 1, carcinogenic to humans.

## Section 4: FIRST AID

Swallowed: Give water to drink. If abdominal discomfort occurs seek medical attention.

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

Skin: Wash with mild soap and running water. Seek medical attention if symptoms persist. For cuts, clean wound and apply antiseptic dressing.

Inhaled: Leave the dusty area

**Advice to Doctor:** Treat symptomatically.

## **Section 5: FIRE FIGHTING MEASURES**

### **Flammability:**

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/explosion hazard:**

Burning or smouldering laminates or dust can generate carbon dioxide and other pyrolysis products typical of burning organic material. Avoid breathing smoke from burning or smouldering material. Dry dusts in high concentrations can be explosive.

### **Fire Fighting Recommendations**

Use water, fog, CO<sub>2</sub>, foam or dry chemical fire extinguishers.

## **Section 6: ACCIDENTAL RELEASE MEASURES**

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. Dust from the laminates should be cleaned up by vacuuming or wet sweeping techniques

## **Section 7: HANDLING & STORAGE**

The laminates should be stored in well-ventilated areas away from sources of heat, flame or Sparks. No special transport requirements are considered necessary.

## **Section 8: EXPOSURE CONTROLS & PERSONAL PROTECTION**

### **Summary**

Keep exposure to dust as low as practicable with the aim of maintaining airborne dust levels to below 1.0 mg/m<sup>3</sup> Time Weighted Average (TWA) measure as inspirable dust. Under factory conditions machining, sawing, drilling, routing, laser cutting and sanding must be done with equipment fitted with local exhaust ventilation devices capable of removing dust and smoke at source. Work areas should be kept clean by regular vacuuming or wet sweeping.

### **Exposure Standards:**

The NOHSC "*Exposure Standards for Atmospheric Contaminants in the Occupational Environment*", [NOHSC: 1003 (1995)] for formaldehyde and cellulose are:

Cellulose (paper fibre):	10mg/m <sup>3</sup> time-weighted average (TWA)
Formaldehyde:	Formaldehyde: 1.0 ppm (1.2mg/m <sup>3</sup> ) TWA: 2.0 ppm (2.5 mg/m <sup>3</sup> ) short term exposure limit STEL sen – sensitiser; Cat 1 (carcinogenic to humans)

Keep exposures as low as practicable with the aim of maintaining respirable dust levels below 1.0 mg/cubic metre (TWA).

### 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 heat processing etc. should be done with equipment fitted with exhaust devices capable of removing dust, gas and vapour 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:

Skin:	Wear loose, comfortable clothing. Long-sleeved shirts and trousers are recommended to prevent skin irritation. After handling laminates, wash with mild soap and water. Do not scratch or rub the skin if it becomes irritated. Wash work clothes regularly and separately from other clothes. Comfortable lightweight leather or equivalent work gloves (AS 2161) should be worn.
Eye:	Dust resistant safety glasses or non-fogging goggles (AS/NZS 1336) should be worn when machining.
Respiratory:	A class P1 or P2 replaceable filter or disposable half face-piece particulates respirator should be worn when machining. Respirators should comply with AS/NZS 1716 and be selected, used and maintained in accordance with AS/NZS 1715.
Smoking and Other Dust:	Inhalation of airborne particles from other sources in the work environment, including those from cigarette smoke, may increase the risk of contracting the lung disease associated with exposure to dust from this product. The Laminex Group recommend that all work and storage areas be smoke free zones and other airborne contaminants be kept to a minimum.

### Section 9: PHYSICAL DESCRIPTION / PROPERTIES:

Boiling Point: (oC)	Not Determined
Melting Point: (oC)	Not Determined
Vapour pressure:	Not Determined
Specific gravity (H <sub>2</sub> O = 1)	1.1-1.7
Flashpoint:	Not Applicable
Flammability Limits:	Not Applicable
Solubility in water:	Negligible

## Section 10: STABILITY & REACTIVITY

Stable at normal temperatures and pressures

## Section 11: TOXICOLOGY INFORMATION

Any health hazards associated with these products have been evaluated on the basis of the individual ingredients, and these hazards should be assumed to be additive. The hazards described in this document have been evaluated based on a threshold of 1.0% for all hazardous ingredients and 0.1% for all carcinogens.

### Acute Effects

The dust, which may be generated during manual or mechanical cutting, drilling, sanding or other abrading processes, and the smoke generated by heating or laser cutting, may cause temporary irritation of the eyes and upper respiratory system.

The symptoms are expected to subside after exposure has stopped and are not expected to cause any long-term effects.

### Chronic Effects

The IARC evaluated formaldehyde in 19951 and concluded that: "There is *limited evidence* in humans for the carcinogenicity of formaldehyde; there is *sufficient evidence* in experimental animals for the carcinogenicity of formaldehyde; and that overall formaldehyde is *probably carcinogenic to humans (Group 2A)*". The IARC again evaluated formaldehyde in June 20042 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.

Whilst this wood panel product contains less than 0.01% free formaldehyde, people using the product may be exposed to low concentrations of formaldehyde if the boards are heated (as in laminating), are cut by laser cutting machines, and/or if dust particles come in contact with the moist mucous membranes lining the upper respiratory tract. Extensive literature searches and research carried out by independent occupational and environmental health specialists has not indicated any risks over and above those associated with wood dust without binder. This research includes the 1999 formaldehyde risk assessment carried out by US scientists in collaboration with the US EPA and Health Canada. The risk assessment concludes that if a non-smoking worker were exposed to 0.004 ppm of formaldehyde continuously for 80 years and also to 0.1 ppm for 40 years at work then the predicted additional risk of respiratory tract cancer would be 4.1 per 1,000,000,000. The controls needed for minimising the potential for formaldehyde exposure from this product will be the same as those for control of dust exposures. These risk assessments and conclusions are in no way altered by the reclassification of formaldehyde to Group 1 by the IARC.

#### References:

- 1 IARC *Monographs on the Evaluation of Carcinogenic Risks to Humans*. Volume 62: Wood dust and formaldehyde. IARC, Lyon, France. 1995.
- 2 IARC Press Release No. 153, 15 June 2004. IARC, Lyon, France.

## Section 12: ECOLOGICAL INFORMATION

This product should be used only for its designated purposes

### **Section 13: DISPOSAL**

This product is not regulated as a hazardous waste by Australian environmental authorities. Local authority guidelines should be followed in the disposal of waste products and dust.

### **Section 14: TRANSPORT INFORMATION**

This product is not regulated as a dangerous good. No special transport requirements are necessary.

### **Section 15: REGULATORY INFORMATION**

The Laminex Group has assessed this product in accordance with the criteria of the National Occupational Health and Safety Commission: NOHSC: 1008 (1999) and NOHSC: 10005(1999), and the assessment is that occupational exposure to dust, smoke or fume from this product is hazardous according to the criteria of the NOHSC. No special State or Commonwealth regulations apply. The product is not listed in the Standard for the Uniform Scheduling of Drugs and Poisons.

*Formaldehyde* - is listed in the 1999 NOHSC list of Designated Hazardous Substances: NOHSC: 10005(1999) if present in concentrations of 0.2% or more (this wood panel product contains <0.01% formaldehyde).

### **Section 16: OTHER INFORMATION**

**Contact Point:** Technical Manager – Laminate Products  
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