

## SECTION ONE: IDENTIFICATION OF MATERIAL AND SUPPLIER

**Product Name:** DecorZen with MDF substrate

**Recommended Use:** Wall and ceiling linings

**Supplier Name:** Decor Systems Australia

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## SECTION TWO: HAZARD IDENTIFICATION

*Overall Statement:* In its intact state, this product is classified as not hazardous according to the criteria of Worksafe Australia. Dust from the product is hazardous according to the criteria of Worksafe Australia.

*Health Hazard Information:* In its intact state, this product is not classified as a hazardous substance by Worksafe Australia. Formaldehyde gas may be released under some conditions, particularly when product is heated. However, in well ventilated storage areas and workplaces, the concentration of formaldehyde is unlikely to exceed World Health Organisation standard of 0.1 ppm for the general environment and it will be well below the National Occupational Health and Safety Commission (NOHSC) Occupational Exposure Standard of 1.0 ppm.

Wood dust may be produced from machining the product, and gas and vapour may be produced from heat process. Exposures to wood dust produced from machining the products and gas and vapours from heat processing with inadequate ventilation may result in the following health effects:

- › Abdominal discomfort if dust is swallowed
- › Eye irritation causing discomfort and redness
- › Skin irritation and occasional red rash
- › Nose, throat, and lung irritation, especially in people with upper respiratory tract or chest complaints such as asthma.

Repeated exposure over many years to uncontrolled wood dust increases the risk of nasal cavity cancer. Inhalation of wood dust may also increase the risk of lung fibrosis (scarring). There are also increased risks of respiratory and skin sensitization from wood dust and formaldehyde resulting in asthma and dermatitis respectively. Wood dust has been evaluated by the International Agency for Research on Cancer (IARC) as group 1, carcinogenic to humans. Formaldehyde has been evaluated by the International Agency for Research on Cancer (IARC) as group 1, carcinogenic to humans, and by the European Union (EU) as a Category 3 carcinogen (possibly carcinogenic).

*Explosion Hazard:* Dry wood dust in high concentrations-in-air and at the temperatures greater than 204 degrees Celsius or 400 degrees Fahrenheit (> 40 grams of dust per metre cubed of air) may spontaneously explode.

*Dangerous Goods Class and Subsidiary Risks:* None allocated

*Poisons Schedule Number:* None allocated

## SECTION THREE: COMPOSITION/INFORMATION ON INGREDIENTS

*Substances:*

CHEMICAL NAME	CAS NUMBER	PROPORTION
Wood from plantation softwood and eucalyptus	- -	> 78%
Urea Formaldehyde (UF) resin	9011-05-6	< 20%
Melamine Urea Formaldehyde resin (MUF)	25036-13-9	< 20%
Paraffin Wax	8002-71-2	< 2%

*Notes:*

1. The ingredients are bound together under heat and pressure. The process cures the resin but small amounts of formaldehyde from the resin may be released from the finished product. The finished product contains less than 1.0 mg/lit of formaldehyde when tested to AS/NZS 4266.16 (desiccator test).
2. The proportion of paint on coated products is less than 1% of the board mass.
3. The proportion of less than 1% of dyes and/or pigments may be used to colour wood fibres in certain products.

## SECTION FOUR: FIRST AID MEASURES

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

*Eyes:* Flush with flowing water for at least 15 minutes. If symptoms persist, seek medical attention.

*Skin:* Wash with mild soap and running water. Remove clothes contaminated with dust. Do not scratch or rub skin if it becomes irritated.

*Inhalation:* Leave dusty area.

*First Aid Facilities:* Provide eye-wash facility.

*Advice to Doctor:* Treat symptomatically.

## SECTION FIVE: FIRE FIGHTING MEASURES

*Extinguishing media:* Water, carbon dioxide, foam, or dry chemical fire extinguishers

*Hazards from combustion products:* Burning or smoldering boards or dust can generate carbon dioxide, carbon monoxide, oxides of nitrogen, hydrogen cyanide and other pyrolysis products, which are irritating to the respiratory tract.

*Protective precautions for firefighters:* Firefighters to wear breathing apparatus

*HAZCHEM code:* None allocated

## SECTION SIX: ACCIDENTAL RELEASE MEASURE

*Emergency procedures:* Not Applicable

*Methods and materials for containment and clean-up:* Not Applicable

## SECTION SEVEN: EXPOSURE CONTROLS/PERSONAL PROTECTION

NATIONAL EXPOSURE STANDARDS	NOHSC [1003 (1005)] Australia/OSH New Zealand (May 1995)
Wood dust (softwoods):	5 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> STEL Listed as a sensitizer
Wood dust (hardwoods):	1 mg/m <sup>3</sup> TWA Listed as a sensitizer
Formaldehyde:	1.0 ppm (1.2 mg/m <sup>3</sup> ) TWA 2.0 2.0 ppm (2.5 mg/m <sup>3</sup> STEL (short term exposure limit of 15 minutes) Listed as a sensitizer Listed as Category 2 carcinogen (probable human carcinogen)
Paraffin wax fumes:	2 mg/m <sup>3</sup> TWA

*Biological limit values:* Not applicable

*Engineering controls:* All work with these boards should be carried out in such a way as to minimize 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.

Inhalation of airborne particles from other sources in the work environment, including those from cigarette smoke, may increase the risk of contracting lung diseases associated with exposure to dust from this product. Decor Systems Australia recommends that all work and storage areas be smoke free and other airborne contaminants be kept to a minimum.

For fire prevention avoid build-up of dust and keep working areas well ventilated. Avoid sources of heat and ignition including those associated with electrical equipment and those associated with dust extraction equipment.

*Ventilation:* Local exhaust ventilation should be provided at areas of cutting to remove airborne dust. General dilution ventilation should be provided as necessary to keep airborne dust below the applicable exposure limits and guidelines. The need for ventilation systems should be evaluated by a professional industrial hygienist, while the design of specific ventilation systems should be conducted by a professional engineer.

## Personal Protective Equipment

*Skin Protection:* Wear loose, comfortable clothing. Long sleeved shirts and trousers are recommended to prevent skin irritation. Wash work clothes regularly and separately from other clothes. Wear comfortable work gloves (AS2161 or NZS5812) to avoid hand cuts when handling panels.

*Eye Protection:* Wear industrial safety glasses or non-fogging goggles (AS/NZS1366) when machining products

*Respiratory Protection:* Avoid breathing dust. Wear a class P1 or P2 replaceable filter or disposable half face-piece respirator when machining products. Respirators should comply with AS/NZS1716 and be selected, used and maintained in accordance with AS/NZS1715

## SECTION EIGHT: HANDLING AND STORAGE

*Handling information:* See Personal Protection

*Storage information:* The boards should be stored in well ventilated areas away from sources of heat, flame, or sparks. Avoid smoking in storage of working areas.

## SECTION NINE: PHYSICAL AND CHEMICAL PROPERTIES

*Appearance:* The products are manufactured as pressed medium density fiberboards. These are made primarily from wood fibres bonded with resins and may contain other additives. Panels are made to a variety of sizes and thicknesses. Moulding may be totally or partially paint coated.

*Odour:* Newly manufactured boards and freshly cut surfaces

*pH:* Not determined

*Vapour Pressure:* Not determined

*Vapour Density:* Not determined

*Boiling Point:* Not applicable

*Melting Point:* Not applicable

*Solubility in Water:* Negligible

*Specific gravity:* 0.45 to 1.1

*Flammability:* These products are flammable, but difficult to ignite.

*Flash Point:* Not applicable

*Flammable Limits in Air:* Not applicable

*Ignition Temperature:* > 200 degrees

*Early Fire Hazard Properties when Tested to AS/NZS1530 Part 3:*

Ignitability index:	14 – 16
Spread of flam index:	8
Heat evolved index:	7 – 9
Smoke developed index:	3 – 5
Potential for dust explosion:	Yes

## SECTION TEN: STABILITY AND REACTIVITY

*Chemical Stability:* The product is chemically stable under normal conditions

*Conditions to Avoid:* Avoid open flames and environments with high moisture and temperatures.

*Incompatible Material:* Avoid contact with oxidizing agents and strong acids.

*Hazardous Decomposition Products:* Thermal and/or thermal oxidative decomposition or burning or smoldering boards or dust can generate carbon dioxide, carbon monoxide, oxides of nitrogen, hydrogen cyanide, and other pyrolysis products.

*Hazardous Reactions:* Not applicable.

## SECTION ELEVEN: 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. Allergic skin and lung reactions have been reported with exposure to various wood panel dusts due to the chemicals presented in wood and cured resin. These rashes resemble other allergic skin reactions caused by plants, and usually heal rapidly.

*Chronic Effects:* The risk of nasal cancer has been associated with wood dust exposure. In the 1960's, studies linking wood dust exposure in the furniture industry with nasal cancer were first reported in England. The link was confirmed in several other European countries and furniture industries. The studies showing a link to nasal cancer having been primarily conducted in industries using hardwood.

The International Research on Cancer (IARC) evaluated dusts from both hardwood and softwood in 1995 and concluded that "there is sufficient evidence in humans for the carcinogenicity of wood dust. There is inadequate evidence in experimental animals for the carcinogenicity of wood dust. Wood dust is carcinogenic to humans (Group 1)".

The IARC also evaluated formaldehyde in 1995 and concluded that "there is limited evidence in humans for the carcinogenicity of formaldehyde; and that overall, formaldehyde is probably carcinogenic to humans (Group 2A)". The IARC again evaluated formaldehyde in June 2004 and concluded that "there is adequate data available from humans for an increased risk of nasopharyngeal cancer" and that formaldehyde should now be classified Group 1, carcinogenic to humans.

Whilst this wood product contains less than 0.01% free formaldehyde, people using the product may be exposed to low concentration 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 most 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 minimizing 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.

## SECTION TWELVE: ECOLOGICAL INFORMATION

*Ecotoxicity:* These products should be used only for their designated purposes.

*Persistence and Degradability:* Not determined

*Mobility:* Not determined

*Environmental Fate:* Not determined

*Bio Accumulative Potential:* Not determined

## SECTION THIRTEEN: DISPOSAL CONSIDERATIONS

*Disposal Method and Containers:* These products are not regulated as a hazardous waste by Australia environmental authorities. Off-cuts and general waste 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.

*Special Precautions for Landfill or Incineration:* Do not burn in barbecues, combustion stoves, or open fires in the home as irritating gases are emitted.

## SECTION FOURTEEN: TRANSPORT INFORMATION:

*UN Number:* None allocated

*UN Proper Shipping Name:* None allocated

*Class and Subsidiary Risk:* None allocated

*Packing Group:* None allocated

*Special Precautions for User:* None allocated

*HAZCHEM Code:* None allocated

These products are not regulated as dangerous goods. No special transport requirements are necessary.

## SECTION FIFTEEN: REGULATORY INFORMATION

Decor Systems Australia 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 the product in 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. *Wood dust (certain hardwoods such as beech and oak)* and *Wood Dust – softwood* are listed in the 1999 NOHSC list of Designated Hazardous Substances: NOHSC 10005 (1999). *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 products contains < 0.01% of formaldehyde).

## SECTION SIXTEEN: HEALTH AND SAFETY INFORMATION TO USERS

*Decor Systems Australia Health and Safety Warning - Wood Panels Product*

*Ingredients:* Wood fibre or particle and heat cured resin

*Risk:* Dust and smoke from this product are irritating to the eyes, skin, and respiratory system. May cause sensitization by inhalation (asthma) and skin contact (dermatitis). Repeated inhalation of the dust increases the risk of nasal cavity cancer and may increase the risk of lung fibrosis (scarring).

*Safety:* Avoid repeated or prolonged contact with skin. Avoid contact with eyes. Avoid breathing dust and smoke. Wear suitable clothing, standard duty gloves (AS2161), and dust resistant eye protection (AS/NZ1715 and 1716). Keep work areas clean by wet sweeping and/or vacuuming. Wash work clothes regularly and separately from other clothes.

*First Aid:* Irrigate eyes with flowing water. Wash skin with soap and water.

*Disposal:* Follow safety instructions above, and collect in containers for disposal as trade waste in accordance with local authority guidelines.

The intact product and dust must not be burnt in barbecues, combustion stove, or open fires in the home, as irritating gases are emitted.

## SECTION SEVENTEEN: OTHER INFORMATION

Whilst the information in this document is based on data which, to the best of our knowledge, was accurate and reliable at the time of preparation, no responsibility can be accepted by us for errors and omissions. The provision of this information should not be construed as a recommendation to use any of our products in violation of any patent rights or in breach of any statute or regulation. Users are advised to make their own determination as to the suitability of this information in relation to their own particular purposes and specific circumstances. Since the information contained in this document may be applied under conditions beyond our control, no responsibility can be accepted by us for any loss or damage caused by any person acting or refraining from action as a result of this information.