Safety Data Sheet Customwood® MDF

Identification of the material and supplier

Product Details

Product Name	**Customwood® MDF (Medium Density Fibreboard).** This SDS is applicable to all types of Customwood® MDF products including the whole range of thickness and density.
Other Names	**Dry process fibreboard**
Product form	**Mixture**
Manufacturer's code	**None allocated**
U.N. Number	**None allocated**
Dangerous Goods Class	**None allocated**
HAZCHEM Code	**None allocated**
Toxic Substances Schedule	**None allocated**
Intended Uses	**Construction of furniture, cabinets and doors. Substrate for a huge range of laminating and finishing techniques. Mouldings. General purpose (non-load bearing applications) building board.**

Company Details

Company	**Daiken New Zealand Limited**
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Hazards Identification

GHS classification: MDF is not classified. Wood Dust is classified.

In its intact state MDF panels are not a hazardous material.

Wood dust is hazardous and it is classified by the World Health Organization as causing cancer to humans. Dust and air may form explosive mixtures.

This product contains and may release formaldehyde. Formaldehyde has been evaluated by IARC as group 1, carcinogenic to humans.

Smoke from this product is hazardous and may cause respiratory system irritation.

Panel edges and broken panels may cut through skin.

Composition/information on ingredients

Formaldehyde (free)	CAS Number	Amount
Wood fibres from plantation softwoods (pine)	-	>79%
Urea Formaldehyde resin	9011-05-6	<20%
Melamine Urea Formaldehyde resin	25036-13-9	<20%
Paraffin wax (Slack petroleum wax)	8002-74-2	<1%
Formaldehyde (free)	50-00-0	<0.015%

The ingredients are bonded under heat and pressure. The process cures the resin but small amounts of formaldehyde from the resin and wood may be released from the finished product. The finished product emits less than 1.5 mg/L of formaldehyde when tested to AS/NZS 4266.16 (Desiccator test).

First Aid Measures

Swallowed: Give water to drink. Do not induce vomiting.

Eyes: Irrigate thoroughly for at least 15 minutes.

Skin: Wash thoroughly with soapy water. Remove contaminated clothes. Wash contaminated clothes separately.

Inhaled: Remove person from contaminated area. Blow nose, rinse mouth with water (do not swallow).

Fire Fighting Measures

All types of extinguishing media can be used.

Fight fire with normal precautions from a reasonable distance. Use water spray or fog for cooling large amounts of stored MDF/Dust.

Fire fighters to wear breathing apparatus.

Flammability

- Avoid wood dust contact with ignition sources.
- Avoid smoking in the workplace and storage rooms.

Accidental Release Measures

This is only applicable to the release of large amounts of dust. Avoid contact with skin and eyes. Do not breathe dust. Avoid generating or spreading dust. Ensure adequate ventilation. Eliminate near-by ignition sources. Evacuate non-emergency personnel.

Emergency response team to wear appropriate PPE.

Handling and Storage

Storage and Transport

Panels must be stored in cool, well ventilated areas away from sources of heat, flames and sparks.

Keep panels dry and away from damp environments. Protect from moisture.

Fire & Explosion Hazard:

MDF is flammable but difficult to ignite.

Early fire hazard properties when tested to AS/NZS 1530 Part 3:

- Ignitability Index: 18
- Spread of Flame index: 8
- Heat evolved index: 7
- Smoke developed index: 4

For the purposes of compliance with the New Zealand Building Code Verification Method C/VM2 Appendix A, Customwood MDF panels achieved Group Number Classification 3.

Panels exposed to more than 50ºC for long periods (months) may spontaneously combust.

Wood dust may ignite at temperatures greater than 204ºC and high concentration in air (>60g/m^3) may spontaneously explode.

Engineering Control

When cutting, drilling, sanding, planning and routing use tools that capture all the dust at the source.

Vacuum cleaners must be fitted with high efficiency particulates air filter.

Clean the workplace at least daily, use a high efficiency vacuum cleaner to collect all dust.

Keep the working environment well ventilated. A correct assessment of the ventilation rates of the workplace can only be made by a professional.

Keep working machinery in good conditions and sharp. Blunt cutting tools generate more dust and heat releasing more formaldehyde.

Use wet clean-up methods (example: wipe surfaces with a wet rag).

Exposure Controls/Personal Protection – Exposure Standards

New Zealand

OSH Workplace Exposure Standards for soft wood dust are:
Time-Weighted-Average (TWA): 2 mg/m3 for 8 hours.

OSH Workplace Exposure Standards for formaldehyde are:
Time-Weighted-Average (TWA): 0.5 ppm for 8 hours.
0.33 ppm for 12 hours.

Ceiling: 1 ppm

Paraffin wax fumes: 2mg/m3 TWA

Japan

Wood dust:

Japan Society for Occupational Health (2015):
Class 3 (Organic dust)

- 2mg/m^3 as Inhalable density
- 8mg/m^3 as Total density

Formaldehyde:

Japan Society for Occupational Health (2015):

- 0.1 ppm (based on 8 hours per day and 40 hours per week)
- 0.2 ppm (as maximum)

Paraffin wax fumes:

Japan Society for Occupational Health (2015):
Not classified

USA

Wood dust, softwoods:

- NIOSH REL (TWA) (mg/m^3): 1 mg/m^3

Equipment

When cutting, drilling, sanding, planning and routing use tools that capture all the dust at the source.

Installation of equipment for washing hands and face.

Personal Protection

Personal Protective Equipment (PPE) must be used when working with MDF, repairing and maintaining wood working machinery and whenever there a possibility that MDF dust is airborne (example when cleaning with compressed air or dry sweeping).

Skin protection: Use appropriate gloves (example NZS5812) and working clothes.

Eye protection: use non-fogging, dust resistant safety goggles or glasses according to AS/NZS 1336.

Respiratory protection: use P2 disposable mask or better (cartridge half mask, etc.) according to AS/NZS 1715 and 1716.

Note that certain forms of respiratory protection may not be safe for some people. They can make the lungs and heart work harder and this could be a problem for people that suffer asthma, respiratory or heart conditions. Medical evaluation is recommended.

Follow the instruction of the manufacturer of the respiratory PPE to ensure proper fit and care of the equipment.

Physical and Chemical Properties

Appearance: Wood panel boards manufactured with a wide range of length, width, thickness (from 1.8 to 30mm) and a densities (from 300 to 1000 kg/m^3).

Boiling Point/Melting Point: Not Applicable

Vapour Pressure: Not Applicable

Specific Gravity: 0.3 to 1.0

Flash Point: Not Applicable

Solubility in Water: Not Applicable

Ignition Temperature: >200ºC

Stability and Reactivity

Chemical Stability: Stable under normal conditions of storage, use and handling.

Reactivity: Non-reactive.

Customwood®

Toxicological Information

Acute (short term) Health Effects of Wood Dust:

Swallowed: May cause abdominal discomfort
Eyes: Irritation resulting in redness and watering
Skin: May result in itching and dermatitis in some people
Inhaled: Irritation of the throat, nose and lungs.

Chronic (long term) Health Effects of Wood Dust and Formaldehyde:

Repeated exposure to dust increases the risk of nasal cavity cancers and lung fibrosis (scarring). Sensitisation of respiratory system and skin, asthma and dermatitis risks are increased.

The International Agency for Research on Cancer (IARC) had evaluated **wood dust** in Group 1: carcinogenic to humans.

The International Agency for Research on Cancer (IARC) had evaluated **formaldehyde** in Group 1: carcinogenic to humans.

More information on IARC evaluation on wood dust and formaldehyde can be found at www.iarc.fr

People affected by occupation asthma may suffer severe symptoms (shortness of breath, wheezing, cough) if in contact with even small amount of wood dust.

Japan

Wood dust

Japan Society for Occupational Health (2015): Group 1 (carcinogenic to humans)

Formaldehyde

Japan Society for Occupational Health (2015): Group 2A (suspect carcinogenic to human with limited evidence)

USA

All soft wood dust

USA NIOSH REL (TWA) 1 mg/m^3

Other Health Hazards

If the board is heated to more than 120ºC or is burning or smouldering, vapours from the paraffin may be irritating to nose, throat, eyes and skin.

Panel edges (saw cuts or broken panels) are generally sharp and can cause cuts to skin.

Toxicological information relevant to the ingredients is not relevant as the ingredients undergo physical and chemical transformation during the manufacturing process. If further information is required on ingredients, refer to SDS for chemicals listed in Composition/ Information on Ingredients on the previous page.

Ecological Information

No data available

Disposal Considerations

Spills and Disposal

Dispose dust and off-cuts in closed containers according to local authorities' disposal requirements.

Transport Information

DOT – IMDG – IATA – TDG

This product it is not regulated for transport.

Regulatory Information

Japan

- **Occupational Safety and Health Act:** N/A
- **Fire Protection Law:** N/A
- **Poisonous and Deleterious Substance Control Law:** N/A
- **Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof:** N/A
- **Ship Safety Law:** N/A

New Zealand

WorkSafe Workplace Exposure Standards for soft wood dust and formaldehyde.

Other Information

References

- Suppliers SDS
- Daiken New Zealand own testing

Additional Information

MDF panels are not to be used for load bearing applications.

More information may be requested to Daiken New Zealand Limited using the company details in the first page.