

Medium Density Fibreboard (MDF), High Density Fibreboard (HDF), & Low Density Fibreboard(LDF)

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 02/10/2016

Revision date: 01/05/2018

Supersedes: 03/17/2015

Version: 3.0

SECTION 1: Identification

1.1. Identification

Product form : Article
Trade name : Medium Density Fibreboard (MDF), High Density Fibreboard (HDF), & Low Density Fibreboard (LDF)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Fibreboards – Construction of furniture, cabinets and doors. Suitable to be utilised as a substrate for an extensive range of finishing processes. General purpose building and packaging for high value items.

1.3. Details of the supplier of the safety data sheet

Daiken Southland Limited
Pioneer Highway,
4RD Gore 9774,
New Zealand
Tel: +64 3 209 3100
Fax: +64 3 203 3721
www.daiken-nz.com

1.4. Emergency telephone number

Emergency number : +64 3 209 3159 (Office hours 09.00 - 17.00hrs)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : Dust and splinters generated during cutting or fabrication may cause irritation of the nose and throat, eyes and skin. The ingredients in this product are bound together under heat and pressure. The cured resin may release small amounts of formaldehyde from the finished product. The finished product contains less than 0.1% free formaldehyde. When first manufactured, the unsealed surfaces of these boards may release small quantities of formaldehyde gas. The concentrations will be highest when the boards are stored in confined, poorly ventilated spaces. When the boards are sealed with paint, varnish, or other surface decorative finishes, the potential for the release of formaldehyde will be greatly reduced.

The cured resin is inert, and not likely to contribute to health effects. Inhalation of wood dust, both hardwood and softwood, may increase the risk of nasal and paranasal cancers. The wax vapour may be irritating to the nose and throat, eyes and skin, if the board is heated to 120 °C or more.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Medium Density Fibreboard (MDF), High Density Fibreboard (HDF), & Low Density Fibreboard (LDF)

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Name	Product identifier	%	GHS-US classification
Non-allergenic, Softwood		60 - 90	Not classified
Urea, polymer with formaldehyde	(CAS No) 9011-05-6	5 - 23	Not classified
Paraffin waxes and Hydrocarbon waxes	(CAS No) 8002-74-2	0 - 2	Not classified

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: At elevated temperatures or in enclosed spaces, product mist or vapors may irritate the mucous membranes of the nose, the throat, bronchi, and lungs. Ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry into confined spaces.
First-aid measures after inhalation	: IF INHALED: if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.
First-aid measures after skin contact	: Wash skin with plenty of water. After contact with skin, wash immediately and thoroughly with water and soap. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if ill effect or irritation develops.
First-aid measures after ingestion	: Ingestion is not considered a potential route of exposure. In all cases of doubt, or when symptoms persist, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: Dust from this product may cause eye irritation. If user operations generate dust: Inhalation, eye and skin contact are expected to be the primary routes of occupational exposure. When heated, material emits irritating fumes.
Symptoms/injuries after inhalation	: Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure. Dust may cause mechanical irritation.
Symptoms/injuries after skin contact	: This product contains small amounts of an ingredient which has been reported to cause skin sensitization reactions in humans. The dust, gas and vapour may irritate the skin, resulting in itching, and occasionally a red rash. Allergic dermatitis may occur.
Symptoms/injuries after eye contact	: Dust may cause mechanical irritation. Dust from this product may cause eyes irritation. Particulate matter may also scratch the eyes.
Symptoms/injuries after ingestion	: Ingestion is not considered a potential route of exposure.
Chronic symptoms	: Repeated exposure over many years to uncontrolled dusts from these boards may result in allergic dermatitis, asthma, or chronic nose or throat irritation in some people. The risk of nasal or paranasal sinus cancers may be increased. But if the work practices noted in the MSDS are followed, and exposure to airborne dust is kept to low, no chronic health effects are anticipated.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
------------------------------	----------------------------------

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Material will burn but does not easily ignite.
Explosion hazard	: not explosive. Dry dust in high concentrations can be explosive.
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters

Firefighting instructions	: Evacuate personnel to a safe area.
Protective equipment for firefighters	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid breathing dust.
6.1.1. For non-emergency personnel	
Emergency procedures	: Avoid contact with eyes.

Medium Density Fibreboard (MDF), High Density Fibreboard (HDF), & Low Density Fibreboard (LDF)

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Avoid raising powdered materials into airborne dust.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Avoid generation of dust. Contain and collect as any solid.
- Methods for cleaning up : Recover the product mechanically.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: Exposure-controls/personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid generation of dust.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : A washing facility/water for eye and skin cleaning purposes should be present.
- Storage conditions : Store in a well-ventilated place. Keep cool.
- Incompatible materials : Strong acids. Strong bases. Strong oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Non-allergenic, Softwood

Not applicable

Urea, polymer with formaldehyde (9011-05-6)

Not applicable

Paraffin waxes and Hydrocarbon waxes (8002-74-2)

ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³
ACGIH	Remark (ACGIH)	URT irr; nausea
NIOSH	NIOSH REL (TWA) (mg/m ³)	2 mg/m ³ (fume)

8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station. All work with these boards should be carried out in such a way as to minimize the generation of dust, gas, and vapours. Under factory conditions, sawing, drilling, sanding, etc. should be done with equipment fitted with exhaust devices capable of removing dust, gas, and vapour at source. Hand power tools should be used in well ventilated areas so as to avoid the spread of dust, gas, and vapour. Storage and work areas should be well ventilated. Work areas should be cleaned at least daily, and dust removed by vacuum cleaning or wet sweeping methods. Avoid using compressed air.

- Personal protective equipment : Combined gas/dust mask with filter type A/P2. Dustproof clothing. Gloves. In case of dust production: protective goggles.



- Materials for protective clothing : According to the conditions of use, protective gloves, apron, boots, head and face protection must be worn. Protective gloves made of PVC. Rubber boots.

Medium Density Fibreboard (MDF), High Density Fibreboard (HDF), & Low Density Fibreboard (LDF)

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Hand protection	: Long-cuff gloves (Gauntlet type-extending beyond the wrist). Use gloves constructed of chemical resistant materials such as heavy nitrile rubber if frequent or prolonged contact is expected. When prolonged or frequent contact occurs, Nitrile gloves may be suitable. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
Eye protection	: When engaged in activities where ingredients could contact the eye, wear safety glasses with side shields or goggles. In extremely dusty environments and unpredictable environments, wear unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when working with ingredients. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Wear safety glasses with side shields, goggles or face shield for protection against dust or flying debris. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin and body protection	: IF ON SKIN: Wash with plenty of soap and water. Use protective clothing to prevent repeated or prolonged skin contact. Use heavy duty gloves constructed of chemical resistant materials such as Viton® or heavy nitrile rubber. With heavy dust development and in confined spaces, use disposable face masks - NIOSH approved dust mask. Antistatic non-skid safety shoes or boots.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Combined gas/dust mask with filter type A/P2. Follow the OSHA respirator regulations found in 29CFR. If airborne concentrations are above the applicable exposure limits, use a NIOSH approved respirator for dusts. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).
Thermal hazard protection	: Not applicable.
Environmental exposure controls	: Avoid release to the environment.
Consumer exposure controls	: Avoid direct eye contact. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Exhaust ventilation. Handle in accordance with good industrial hygiene and safety procedures.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Daiken Southland LTD products are manufactured as compressed wood panel sheets in thickness from 2 mm to 36 mm. They are made from wood fibres bonded together with formaldehyde-based resins. This density of products range from 380 kg/m ³ to 940 kg/m ³ and are referred to as medium density.
Colour	: Not available
Odour	: Newly manufactured product and freshly cut surfaces may emit a slight odor due to residual formaldehyde from the resin binder
Odour threshold	: No data available
pH	: Not applicable for solid
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: Not known
Explosive properties	: Not expected to be explosive as none of the components is classified as explosive.
Oxidising properties	: Not oxidising based on structural assessment of components.
Vapour pressure	: Not applicable
Vapour pressure at 50 °C	: Not applicable
Relative density	: Not available
Relative vapour density at 20 °C	: No data available
Density	: 0.380g/cm ³ - 0.940g/cm ³
Molecular mass	: Not applicable
Solubility	: Insoluble in water.
Log Pow	: No data available

Medium Density Fibreboard (MDF), High Density Fibreboard (HDF), & Low Density Fibreboard (LDF)

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Auto-ignition temperature	: Not known
Decomposition temperature	: No data available
Viscosity	: Not applicable for a solid
Viscosity, kinematic	: Not applicable for solid
Viscosity, dynamic	: Not applicable for solid

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Burning or smouldering boards can generate carbon dioxide and other pyrolysis products typical of burning organic material.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Urea, polymer with formaldehyde (9011-05-6)	
LD50 oral rat	8394 mg/kg
LC50 inhalation rat (mg/l)	> 167 mg/m ³ (Exposure time: 4 h)
Paraffin waxes and Hydrocarbon waxes (8002-74-2)	
LD50 oral rat	> 3750 mg/kg
LD50 dermal rabbit	> 3600 mg/kg

Skin corrosion/irritation : Not classified
pH: Not applicable for solid

Serious eye damage/irritation : Not classified
pH: Not applicable for solid

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure. Dust may cause mechanical irritation.

Medium Density Fibreboard (MDF), High Density Fibreboard (HDF), & Low Density Fibreboard (LDF)

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Symptoms/injuries after skin contact	: This product contains small amounts of an ingredient which has been reported to cause skin sensitization reactions in humans. The dust, gas and vapour may irritate the skin, resulting in itching, and occasionally a red rash. Allergic dermatitis may occur.
Symptoms/injuries after eye contact	: Dust may cause mechanical irritation. Dust from this product may cause eyes irritation. Particulate matter may also scratch the eyes.
Symptoms/injuries after ingestion	: Ingestion is not considered a potential route of exposure.
Chronic symptoms	: Repeated exposure over many years to uncontrolled dusts from these boards may result in allergic dermatitis, asthma, or chronic nose or throat irritation in some people. The risk of nasal or paranasal sinus cancers may be increased. But if the work practices noted in the MSDS are followed, and exposure to airborne dust is kept to low, no chronic health effects are anticipated.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
-------------------	--

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming	: No additional information available
------------------------------	---------------------------------------

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose of empty containers and wastes safely.
Sewage disposal recommendations	: not applicable.
Waste disposal recommendations	: Offcuts and general waste materials should be placed in containers and disposed of at approved landfills sites, or burnt in an approved furnace or incinerator, in accordance with disposal authority guidelines. Dust can be disposed of in the same way as off-cuts but should be cleaned up by vacuuming or wet sweeping.
Additional information	: Avoid release to the environment. Offcuts and general waste materials should be placed in containers and disposed of at approved landfills sites, or burnt in an approved furnace or incinerator, in accordance with disposal authority guidelines. Dust can be disposed of in the same way as off-cuts but should be cleaned up by vacuuming or wet sweeping.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated for transport

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

Medium Density Fibreboard (MDF), High Density Fibreboard (HDF), & Low Density Fibreboard (LDF)

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 15: Regulatory information

15.1. US Federal regulations

Urea, polymer with formaldehyde (9011-05-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Paraffin waxes and Hydrocarbon waxes (8002-74-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

Urea, polymer with formaldehyde (9011-05-6)

Listed on the Canadian DSL (Domestic Substances List)

Paraffin waxes and Hydrocarbon waxes (8002-74-2)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Uncontrolled product according to WHMIS classification criteria

EU-Regulations

No additional information available

Paraffin waxes and Hydrocarbon waxes (8002-74-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Urea, polymer with formaldehyde (9011-05-6)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Paraffin waxes and Hydrocarbon waxes (8002-74-2)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on CIGR (Turkish Inventory and Control of Chemicals)

15.3. US State regulations

No additional information available

SECTION 16: Other information

Revision date : 01/05/2018

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product