

1. Product and Company Identification

Material name Medium Density Fiberboard (MDF)
Revision date February 2013
Version # 01
Product use Furniture, Cabinets, Construction
Synonym(s) Ultrastock, MR (Moisture Resistant)
Manufacturer/Supplier Georgia-Pacific Panel Products LLC
133 Peachtree St.
Atlanta, GA 30303
Fed ID: 46-1699660
 24-Hour Emergency: Chemtrec – 800-424-9300 CCN9376

2. Hazards Identification

Physical state Solid.
Appearance Light to dark colored solid.
Emergency overview WARNING!

May form combustible dust concentrations in air (during processing). Under normal handling, the product is expected to pose low health hazards as the ingredients are firmly embedded in a wood matrix. Dusts generating from sawing, sanding, or machining of this product may pose the health hazards described in this MSDS.

OSHA regulatory status This product is hazardous according to OSHA 29 CFR 1910.1200.

Potential health effects

Eyes Direct contact with eyes may cause temporary irritation.
Skin Wood dust: Certain species may cause allergic dermatitis to certain individuals.
Inhalation Wood dust: May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation.
Ingestion Expected to be a low ingestion hazard.

Potential environmental effects Not expected to be harmful to aquatic organisms.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Formaldehyde	50-00-0	<1 ppm
Synthetic binder	not applicable	proprietary
Wood dust (and/or ligno-cellulosic fibers)	not applicable	proprietary

Composition comments All concentrations are in percent by weight unless otherwise indicated.

4. First Aid Measures

First aid procedures

Eye contact Flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if symptoms persist.
Skin contact Wash with soap and water. Get medical attention if symptoms occur.
Inhalation If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Ingestion Not applicable.

5. Fire Fighting Measures

Flammable properties

This product does not present a fire or explosion hazard. Sawing, drilling, sanding, or machining this product could result in the creation of wood dust and or lingo-cellulosic fibers/dust. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. According to data contained in NFPA Standards, 0.04 ounce of wood flour per cubic foot of air is the minimum explosive concentration.

Extinguishing media

Suitable extinguishing media

Extinguish with foam, carbon dioxide, dry powder or water fog.

Fire fighting equipment/instructions

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Hazardous combustion products

Burning of wood can produce irritating fumes and gases including carbon monoxide and carbon dioxide.

6. Accidental Release Measures

Personal precautions

Wear appropriate personal protective equipment (See Section 8).

Methods for cleaning up

Sweep or scoop up and remove. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Nonsparking tools should be used.

7. Handling and Storage

Handling

Minimize dust generation and accumulation.

Storage

Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components

Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable)

Type

TWA

Value

1 mg/m³

Form

Inhalable fraction

U.S. - OSHA

Components

Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable)

Type

TWA

Value

5 mg/m³

Form

Respirable fraction.

15 mg/m³

Total dust.

Canada - Alberta

Components

Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable)

Type

TWA

Value

1 mg/m³

Form

Total dust

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components

Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable)

Type

TWA

Value

1 mg/m³

Form

Dust.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components

Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable)

Type

STEL

Value

10 mg/m³

Form

Dust.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
	TWA	1 mg/m ³	Dust.

Canada - Quebec Components

Components	Type	Value	Form
Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable)	STEL	5 mg/m ³	Total dust.

Mexico. Occupational Exposure Limit Values

Components	Type	Value	Form
Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable)	STEL	10 mg/m ³	Dust.
	TWA	1 mg/m ³	Dust.

Exposure guidelines Additional Occupational Exposure Limit information for Wood Dust:
California OELs: 8hr TWA: 5 mg/m³; 15-minute STEL 10 mg/m³.
Oregon OELs: 8hr TWA: 10 mg/m³.
Tennessee OELs: TWA: 5 mg/m³; STEL: 10 mg/m³.

Engineering controls Ensure adequate ventilation, especially in confined areas. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Personal protective equipment

Eye / face protection Wear safety glasses with side shields (or goggles).

Skin protection It is good industrial hygiene practice to minimize skin contact.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Respirator type: High-efficiency particulate respirator.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	Light to dark colored solid.
Color	Various. Dependent on wood species and time since board was manufactured and if any dye is present.
Odor	Various. Dependent on wood species and time since board was manufactured.
Odor threshold	Not available.
Physical state	Solid.
Form	Board.
pH	Not applicable.
Melting point	Not available.
Freezing point	Not available.
Boiling point	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.

Specific gravity	< 1
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	425 - 475 °F (218.3 - 246.1 °C)
Decomposition temperature	Not available.
Viscosity	Not applicable.

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Ignition sources. Minimize dust generation and accumulation.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	At elevated temperatures: Aliphatic aldehydes. Organic acids. Polycyclic aromatic hydrocarbons (PAHs).
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

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 cutting, may cause temporary irritation of the eyes and respiratory tract. Allergic skin and lung reactions have been reported with exposure to various wood dusts due to the chemicals presented in wood and cured resin. Formaldehyde: May cause temporary irritation of skin, eyes, or respiratory system.

Sensitization Depending on wood species, dust may cause skin and/or respiratory sensitization.

ACGIH Sensitizer

Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable) Sensitizer.

Chronic effects Long-term inhalation of wood dust, above exposure limits, can cause nasal lesions, bleeding, and nasal cancer. Formaldehyde: Numerous epidemiological studies have been conducted on formaldehyde to determine a relationship with nasal and pulmonary cancer or pulmonary diseases such as lung cancer and emphysema. It has been demonstrated in these studies that the level of exposure is directly related to the rate and frequency of cancer. These cancers are rarely seen in developed countries that have occupational exposure safety programs and proper ventilation controls. In the studies where the level of formaldehyde is below the set occupational exposure limits, there was no significant increase of nasal or pulmonary cancers. The EPA has classified formaldehyde as a B-1 Probably Human Carcinogen. Formaldehyde is listed by the NTP as an animal carcinogen and a known human carcinogen. The IARC monograph lists formaldehyde as a Group 1 carcinogen to human. This IARC determination is based on the work product of a working group that concluded that sufficient evidence exists that formaldehyde causes nasopharyngeal cancer in humans.

Carcinogenicity Due to the form of the product, exposure to the potentially carcinogenic components is not expected. Potentially carcinogenic components are typically only present in trace amounts. ACGIH classifies Oak and Beech wood dusts as category A1 (confirmed human carcinogen). Birch, mahogany, teak and walnut wood dusts are classified as category A2 (suspected human carcinogen). All other species of wood dust are classified as category A4 (not classifiable as a human carcinogen).

ACGIH Carcinogens

Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable) A1 Confirmed human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable) 1 Carcinogenic to humans.

US NTP Report on Carcinogens: Known carcinogen

Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable) Known To Be Human Carcinogen.

12. Ecological Information

Ecotoxicity Not expected to be harmful to aquatic organisms.

Persistence and degradability	No data available.
Bioaccumulation / Accumulation	No data available.
Partition coefficient (n-octanol/water)	No data available.
Mobility in environmental media	No data available.

13. Disposal Considerations

Disposal instructions Material should be recycled if possible. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport Information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations This product is hazardous according to OSHA 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification(40 CFR 707, Subpt. D)

Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A)

No

Section 311/312 (40 CFR 370)

No

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)

Not controlled

WHMIS status

Controlled

WHMIS classification

D2A - Other Toxic Effects-VERY TOXIC

WHMIS labeling



Inventory status

Country(s) or region

Inventory name

On inventory (yes/no)*

Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations WARNING: This product contains chemicals known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Formaldehyde (CAS 50-00-0)	Listed.
Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable)	Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Formaldehyde (CAS 50-00-0)	Listed: January 1, 1988 Carcinogenic.
Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable)	Listed: December 18, 2009 Carcinogenic.

US - New Jersey RTK - Substances: Listed substance

Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable)	Listed.
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US - Pennsylvania RTK - Hazardous Substances: Listed substance

Wood dust (and/or ligno-cellulosic fibers) (CAS not applicable)	Listed.
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Mexico regulations This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).
This product is dangerous according to Mexican regulations.

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.
A HMIS® Health rating including an * indicates a chronic hazard.

HMIS® ratings

Health: 1*
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 0
Flammability: 1
Instability: 0

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