



Safety Data Sheet - Langboard MDF

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Langboard MDF (Medium Density Fiberboard)
U.N. Number:	None
U.N. Dangerous Goods Class:	Non-Regulated Material
Uses:	Construction of furniture, cabinets, and doors. Substrate for a large range of laminating and finishing applications. Used to manufacture architectural mouldings and in general purpose applications (non-load bearing applications).
Company Name:	Langboard Inc.
Address:	548 Langboard Rd Willacoochee, GA 31650
Telephone Number:	912-534-5959
Fax Number:	912-534-5904

SECTION 2: HAZARDS IDENTIFICATION

Product Identifier:	Wood Dust
Synonyms:	Sawdust, mdf dust, powdered wood
Emergency Overview:	Wood dust is a light to dark colored granular solid with odor dependent on wood species and time since dust was generated.
Health Hazards:	The primary health hazard posed by this product is dust inhalation which can cause respiratory system irritation. Contact with skin and eyes can also cause irritation. Prolonged or repeated inhalation of wood dust may cause cancer.
Flammability:	Depending on the moisture content and particle diameter, wood dust may explode in the presence of an ignition source. An airborne concentration of 40 grams of dust per cubic meter of air is often used as the LEL for wood dusts.
Environmental Effects:	The environmental effects of this product have not been investigated. However, this product is not anticipated to cause adverse environmental effects. MDF panels in their intact state are not a hazardous material. Smoke from this product is hazardous and may cause respiratory system irritation. Panel edges and broken panels may cut through skin.

According to: OSHA 29 CFR 1910.1200 HCS

Classification of Substance or Mixture:

This product is generally an article but is regulated under OSHA for the release of wood dust during mechanical operations releasing dust. The free formaldehyde levels are below OSHA reporting requirements. The classifications listed below are based upon wood dust:

Skin Irritation: 2
Skin Sensitization: 1
Eye Mild Irritation: 2B
Respiratory Sensitization: 1
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Carcinogenicity: 1A
Combustible Dust

Label Elements:
OSHA HCS 2012

DANGER



Hazard Statements:

Causes skin irritation
May cause an allergic skin reaction
Causes eye irritation
May cause respiratory irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause cancer via inhalation or respirable dust
May form combustible dust concentrations in air

Precautionary Statements:

Obtain special instruction before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe airborne dust.
Contaminated work clothing should not be allowed out of the workplace.
In case of inadequate ventilation, wear respiratory protection.
Wash thoroughly after handling.
Do not eat, drink, or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection.

Response Actions:

IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF EXPERIENCING RESPIRATORY SYMPTOMS: Call a POISON CENTER or doctor.
IF EXPOSED OR CONCERNED: Get medical advice/attention.

Storage/Disposal:

Store away from water and ignition sources. It is recommended to store the

product in an area with relative humidity and temperature that approximates end use conditions.

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other Hazards:

OSHA HCS 2012

This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Other Information:

NFPA: Health = 1, Flammability = 1, Reactivity = 0, Special Information = None

HMIS: Health = 1*, Flammability = 1, Reactivity = 0, PPE = E

* Chronic Health Hazard

E = Safety Glasses, gloves, and a dust respirator

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

The wood products are composed of wood fibers and cured amino resins. See Section 8 for exposure limits discussion.

The components shown below may appear in some or in various combinations in a particular MDF product. With the exception of Formaldehyde, only hazardous components above the appropriate cut-off limit are shown.

COMPOSITION		
Chemical Name	Identifiers	Hazardous?
Wood Fibers	CAS: Not Available	Yes
Cured Amino Resin	CAS: Proprietary	Yes
Urea	CAS: 57-13-6	Yes
Formaldehyde	CAS: 50-00-0	Yes

Wood contains trace amounts of various chemicals present in the environment which are absorbed by trees through natural growth.

All products produced at Langboard Inc. mills are certified to the Composite Panel Association's Eco-certified Composite (ECC) Sustainability Standard which requires adherence to the strict California Air Resources Board (CARB) Composite Wood Formaldehyde Air Toxic Control Measure (CARB ATCM 93120.12).

CALIFORNIA RESIDENTS: This product contains one or more chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

SECTION 4: FIRST-AID MEASURES

Inhalation: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion: Health effects are not known or expected to occur under normal use. Low hazard for usual industrial or commercial handling.

Most Important Symptoms and Effects, Both Acute and Delayed:

Refer to Section 11 - Toxicological Information.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media:

Suitable Extinguishing Media: SMALL FIRES: Dry CO₂, water spray or regular foam.
LARGE FIRES: Water spray, fog, or regular foam.

Unsuitable Extinguishing Media: No data available.

Firefighting Procedures: No special procedures. Fire-fighting procedures for wood products are well known.

Special Hazards Arising From the Substance or Mixture:

Unusual Fire and Explosion Hazards:

MDF is not an explosion hazard. Sawing, sanding, or machining MDF could result in the by-product wood dust. Wood dust may present a strong to severe explosion hazard if a dust cloud contacts an ignition source. Airborne concentrations of 40 grams per cubic meter are often used as the lower explosive limit (LEL) for wood dusts. OSHA interprets the explosive level as having no visibility within five (5) feet or less.

Hazardous Combustion Products:

Burning of MDF can result in carbon dioxide, carbon monoxide, oxides of nitrogen, aldehydes, cyanides, and other hazardous gases and particles.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Personal Precautions: Do not breathe dust.

Emergency Precautions: No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended.

Environmental Precautions:

No known significant environmental effects.

Methods and Material for Containment and Cleaning Up:

Containment/Clean-up Measures: Not applicable for product in purchased form (panels). Dust generated from sawing, sanding,

drilling or routing this product may be vacuumed or shoveled for recovery or disposal. Wood dust clean-up and disposal should be done in a manner to minimize creation of airborne dust.

SECTION 7: HANDLING AND STORAGE

Handling:

No special precautions for handling product. Use good safety and industrial hygiene practices. Minimize airborne dust generation and accumulation. Routine housekeeping should be performed to ensure that dusts do not accumulate on surfaces.

Storage:

Avoid storage where exposure to water could occur or near any source of ignition. It is recommended to store the product in an area with relative humidity and temperature that approximate end use conditions. Keep away from sources of ignition - NO SMOKING.

Incompatible Materials or Ignition Sources:

Keep away from ignition sources.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:

Exposure Limits/Guidelines:

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Wood Dust	TWAs	1 mg/m ³ TWA as wood dust, all soft and hard woods	1 mg/m ³ TWA as wood dust, all soft and hard woods	15 mg/m ³ , total dust (5 mg/m ³ , respirable fraction) (as nuisance dust)
Formaldehyde (50-00-0)	TWAs	0.3 ppm STEL	0.016 ppm TWA	0.75 ppm TWA

Exposure Controls:

Engineering Measures/Controls:

Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. Due to the explosive potential of wood dust when suspended in the air, precautions should be taken during sanding, sawing, or machining of wood products to prevent sparks or other ignition sources in ventilation equipment. Use of totally enclosed motors is recommended.

Personal Protective Equipment Pictograms:



Respiratory: Use of a NIOSH/MSHA approved dust respirator is recommended where

airborne dust levels exceed appropriate PELs and TLVs.

Eye/Face: Wear safety glasses/goggles.

Hands: Wear protective gloves - rubberized cloth, canvas, or leather gloves.

Skin/Body: Wear long sleeves and/or protective coveralls.

General Industrial: Practice good housekeeping and avoid creating/breathing dust. Do not allow dust to collect. Maintain, clean, and fit test respirators in accordance with OSHA regulations.

Environmental Exposure: No data available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Material Description			
Physical Form	Solid	Appearance/Description	MDF Panel
Color	Light brown	Odor	No distinctive odor
Taste	No data available	Odor Threshold	Not relevant
General Properties			
Boiling Point	Not relevant	Melting Point:	Not relevant
Decomposition Temperature	No data available	pH	Not relevant
Specific Gravity / Relative Density	No data available	Density	No data available
Bulk Density	No data available	Water Solubility	Insoluble
Viscosity	No data available	Explosive Properties:	No data available
Oxidizing Properties:	No data available		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	No data available
Evaporation Rate	Not relevant	VOC (Vol.)	0%
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Burning Time	No data available
Autoignition	425 to 475 F	Flammability (solid, gas)	No data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity: The product is stable.

Chemical Stability: The product is stable.

Possibility of Hazardous Reactions: Hazardous polymerization not indicated. Hazardous polymerization will not occur.

Conditions to Avoid: Exposure to water, ignition sources, high relative humidity and high temperature.

Incompatible Materials: Acids (strong), Oxidizers (strong)

Hazardous Decomposition Products:

Hazardous decomposition may occur. Thermal and/or thermal oxidative decomposition can produce irritating and toxic fumes and gases, generating carbon dioxides, HCN, aldehydes and organic acids.

SECTION 11: TOXICOLOGICAL INFORMATION

Product Information: Not applicable for product in purchased form (panels). Individual component information is provided below if available.

		Components
Cured Amino Resin	Proprietary	Acute Toxicity: Ingestion/Oral-Rat LD50 = 8394 mg/kg
		Inhalation-Rat LC50 = >167mg/m ³ 4 Hours
		Irritation: Eye-Rabbit = 100 µL 24 Hours (severe irritation)
		Skin-Rabbit = 500 mg 24 Hours (sever irritation)
Urea	57-13-6	Acute Toxicity: Ingestion/Oral-Rat LD50 = 8471 mg/kg
		Ingestion/Oral-Rat TDLo = 750 mg/kg
		Kidney, Ureter, and Bladder: Urine volume increased
		Nutritional and Gross Metabolic: Changes in chemistry or temperature: NA
		Nutritional and Gross Metabolic: Changes in chemistry or temperature: K
		Irritation: Skin-Human = 20% 24 Hours (moderate irritation)
		Multi-dose Toxicity: Inhalation-Rat TCLo = 288 mg/m ³ 17 weeks intermittent
		Kidney, Ureter, and Bladder: Other changes in urine composition.
		Blood: Other changes
		Nutritional and Gross Metabolic: Changes in chemistry or temperature: Cl
		Tumorigen/Carcinogen: Ingestion/Oral-Rat TDLo = 821 g/kg 1 year continuous
		Tumorigenic: Neoplastic by RTECS criteria
		Blood: Tumors; Lymphoma, including Hodgkin's Disease
Formaldehyde	50-00-0	Acute Toxicity: Ingestion/Oral-Rat LD50 = 100 mg/kg
		Inhalation-Rat LC50 = 203 mg/m ³
		Peripheral Nerve and Sensation: Spastic paralysis with or without sensory change.
		Behavioral: Convulsions or effect on seizure threshold; excitement
		Irritation: Eye-Rabbit = 750 µg 24 Hours (severe irritation)
		Skin-Rabbit = 2 mg 24 Hours (sever irritation)
		Multi-dose Toxicity: Inhalation-Rat TCLo = 500mg/kg 20 days intermittent
		Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: Transaminases
		Inhalation-Mouse TCLo = 400 ppb 12 weeks intermittent
		Lungs, Thorax, or Respiration: Other changes
		Endocrine: Changes in spleen weight
		Biochemical:Meatbolism (intermediary): Other proteins; Mutagen
		Micronucleus test: Inhalation-Human = 2 ppm 15 minutes
		Micronucleus test: Inhalation-Human = 0.1 ppm 8 Hours

		Reproductive: Inhalation-Rat TLo = 12 µg/m ³ 24 Hours (15D pre/1-22D preg)
		Reproductive Effects: Effects on Newborn: Growth statistics (e.g., reduced weight gain)
		Reproductive Effects: Effects on Newborn: Other postnatal measures or effects.

GHS Properties	Classification
Acute toxicity	OHS HCS 2012 - Acute Toxicity - Data Lacking (oral, dermal, inhalation)
Aspiration Hazard	OSHA HCS 2012 - Data lacking
Carcinogenicity	OSHA HCS 2012 - Carcinogenicity 1A
Germ Cell Mutagenicity	OSHA HCS 2012 - Data lacking
Skin corrosion/irritation	OSHA HCS 2012 - Skin Irritation 2
STOT-RE	OSHA HCS 2012 - Specific Target Organ Toxicity Repeated Exposure 2
STOT-SE	OSHA HCS 2012 - Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Toxicity for Reproduction	OSHA HCS 2012 - Data lacking
Respiratory sensitization	OSHA HCS 2012 - Respiratory Sensitizer 1
Serious eye damage/irritation	OSHA HCS 2012 - Eye Mild Irritation 2B

Target Organs: Skin/Dermal, Lungs, Respiratory System

Route(s) of Entry/Exposure: Inhalation, Skin, Eye

Medical Conditions Aggravated

by Exposure: Dusts may aggravate asthma or other respiratory disorders.

Potential Health Effects:

No adverse health effects are expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs include:

Inhalation:

- Acute (Immediate): May cause respiratory irritation.
- Chronic (Delayed): Repeated and prolonged exposure may cause cancer.
Repeated and prolonged exposure may cause sensitization of the respiratory system.

Skin:

- Acute (Immediate): May cause irritation.
- Chronic (Delayed): Repeated and prolonged exposure may cause sensitization.

Eye:

- Acute (Immediate): May cause irritation.
- Chronic (Delayed): No data available.

Ingestion:

Acute (Immediate): Under normal conditions of use, no health effects expected.

Chronic (Delayed): Under normal conditions of use, no health effects expected.

Carcinogenic Effects:

Wood dust is listed by NTP as known to be a Human Carcinogen (10th Report), IARC Monographs: Wood dust, Group 1 - IARC Group 1: Carcinogenic to humans; sufficient evidence of carcinogenicity. This classification is primarily based on studies showing an association between occupational exposure to wood dust and adenocarcinoma of the nasal cavities and paranasal sinuses. IARC did not find sufficient evidence of an association between occupational exposure to wood dust and cancers of the hypopharynx, oropharynx, lymphatic and hematopoietic systems, lungs, stomach, colon or rectum.

Carcinogenic Effects				
	CAS	OSHA	IARC	NTP
Wood dust as wood dust, all soft and hard woods	Not Available	Not Listed	Group 1-Carcinogenic	Known Human Carcinogen
Formaldehyde	50-00-0	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen

SECTION 12: ECOLOGICAL INFORMATION

Toxicity:

No information available at this time. Treat like all foreign substances and do not allow to enter the storm water drainage systems. These wood products are not expected to pose an ecological hazard as a result of their intended use.

Persistence and Degradability:

No data available.

Mobility in Soil:

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods:

Burn wood product waste in a municipal incinerator. Dispose of in an approved landfill. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. There is no data available for disposal for packaging waste associated with the product.

SECTION 14: TRANSPORT INFORMATION

	UN Number	UN Proper Shipping Name	Transport Hazard Class(es)	Packing Group	Environmental Hazards
DOT	No Data Available	No Data Available	No Data Available	No Data Available	No Data Available
TDG	No Data Available	No Data Available	No Data Available	No Data Available	No Data Available

Special Precautions for User: No special precautions

Transport in bulk according to
Annex II of MARPOL 73/78
and the IBC Code:

No data available

Other Information:

DOT - Not regulated as a hazardous material.

SECTION 15: REGULATORY INFORMATION

Safety, Health, and Environmental Regulations/Legislation Specific for the Mixture:

SARA Hazard Classifications: Acute, Chronic

United States:

Labor:

U.S.A. - OSHA	Process Safety Management	Highly Hazardous Chemicals
MDF and Ingredients (unless listed below)	NA	Not Listed
Formaldehyde	50-00-0	1,000 lb TQ

Environment:

U.S.A. - CERCLA/SARA	Hazardous Substances	Reportable Quantities
MDF and Ingredients (unless listed below)	NA	Not Listed
Formaldehyde	50-00-0	100 lb final RQ; 45.4 kg final RQ

U.S.A. - CERCLA/SARA	Section 304 Extremely Hazardous Substances	EPCRA RQs
MDF and Ingredients (unless listed below)	NA	Not Listed
Formaldehyde	50-00-0	100 lb EPCRA RQ

U.S.A. - CERCLA/SARA	Section 302 Extremely Hazardous Substances	Reportable Quantities
MDF and Ingredients (unless listed below)	NA	Not Listed
Formaldehyde	50-00-0	500 lb TPQ

U.S.A. - CERCLA/SARA	Section 313	Emissions Reporting
MDF and Ingredients (unless listed below)	NA	Not Listed
Formaldehyde	50-00-0	0.1% de minimis concentration (concentration in product is below de minimis)

United States - California

Environment:

U.S.A. - California	Proposition 65	Carcinogens List

MDF and Ingredients (unless listed below)	NA	Not Listed
Formaldehyde	50-00-0	Carcinogen, initial date 1/1/88 (gas)
Wood dust as wood dust, all soft and hard woods	NA	Carcinogen, initial date 12/18/09

SECTION 16: OTHER INFORMATION

Classification Method For Mixtures: Cut-off values/concentration limits of ingredients.

Preparation Date: June 1, 2015

Disclaimer/Statement of Liability:

The information contained in this Safety Data Sheet comes from sources believed to be accurate or otherwise technically correct. It is the end user's responsibility to determine if the product is suitable for its proposed application(s), and to follow all necessary safety precautions. The user has the responsibility to make sure that this sheet is the most up-to-date version.

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