



MATERIAL SAFETY DATA SHEET

Additional Information: 912-534-5959

Medium Density Fiberboard

Langboard MDF
548 Langboard Rd.
Willacoochee, Ga. 31650

PRODUCT NAME

Langboard Medium Density Fiberboard

GENERAL USE

Re-manufacturing, construction and furniture processes.

PRODUCT DESCRIPTION

A panel manufactured from ligno-cellulosic fiber materials, bonded with synthetic resins which may contain certain additives.

INGREDIENT INFORMATION

Formaldehyde	CAS Registry #50-00-0	Exposure Limits OSHA PEL - TWA 0.75 PPM OSHA PEL - STEL: 2 PPM ACGIH TLV - Ceiling: 0.30 PPM
Wood Dust/Ligno-cellulosic fiber (softwood)		ACGIH TLV - 5.0mg/m ³ ACGIH STEL -(15MIN):10.0mg/m ³

HAZARDS INFORMATION

This product is manufactured with urea formaldehyde resins and may release in gaseous form, in low concentrations. Mechanical cutting or abrasion processes can result in the generation of ligno-cellulosic fibers.

POTENTIAL HEALTH EFFECTS

ACUTE:

Formaldehyde in gaseous form, may cause temporary irritation to eyes, nose, and throat. Formaldehyde may cause respiratory sensitization, such as asthma, and some pre-existing respiratory disorders may be aggravated by prolonged exposure.

Ligno-cellulosic fibers may cause nasal dryness, irritation and obstruction. Coughing, wheezing, sneezing, sinusitis, and prolonged colds have also been reported.

EYE CONTACT:

Gaseous formaldehyde may cause temporary irritation or a burning sensation.

Ligno-cellulosic fiber can cause mechanical irritation.

SKIN CONTACT:

Ligno-cellulosic fiber and formaldehyde both may evoke contact dermatitis in certain sensitized individuals.

INGESTION:

Not likely to occur.

CHRONIC:

The IARC has listed formaldehyde as a probable human carcinogen. The National Toxicology Program includes formaldehyde in its annual report on carcinogens. The National Cancer Institute concluded that the data provides little evidence that the mortality from cancer is associated with formaldehyde exposure at the levels experienced by a study published in June 1986.

Ligno-cellulosic fibers, depending on the species, may cause irritation and/ or respiratory sensitization and is classified as a carcinogen to humans (Group 1). IARC did not find sufficient evidence to associate cancers of the oropharynx, hypopharynx, lung lymphatic and hematopoietic systems, stomach, colon, or rectum with exposure to ligno-cellulosic fibers.

FIRST AID :

INHALATION:

Proper ventilation - remove to fresh air. If severe coughing or breathing difficulty occurs and persists, get medical attention.

EYE CONTACT:

Flush eyes with water. Get to fresh air. Get medical attention if irritation persists.

SKIN CONTACT:

Wash thoroughly with soap and water. If irritation persists or if rash or dermatitis occurs, get medical attention.

INGESTION:

Does not apply.

FIRE FIGHTING MEASURES:

HAZARD:

MDF is classified as a Class A combustible material.

FLASH POINT AND METHOD:

Not applicable.

FLAMMABLE LIMITS:

Not applicable.

AUTOIGNITION TEMPERATURE:

400 - 500 F

Ignition of wood takes place when wood is subject to sufficient heat and in atmospheres that have sufficient oxygen. Ignition can be of two types: piloted and unpiloted. The surface temperature of wood materials has been measured somewhere between 300 C and 400 C (575F to 752F) prior to piloted ignition. At this time, it is not possible to give specific ignition data that apply to a broad range of cases. With convection heating of wood, unpiloted ignition has been reported as low as 270 C (518 F) and as high as 470 C (878 F).

FIRE FIGHTING INSTRUCTIONS:

Fire fighting procedures for extinguishing a Class A fire should be followed. When extinguishing a fire in a ligno-cellulose fiber pile care needs to be taken. A direct stream of water, into the pile from a hose, could cause the burning material to become airborne creating a risk in spreading the fire to other areas.

FIRE FIGHTING EQUIPMENT:

Use recommended Class A fire fighting equipment when fighting an incipient fire.

HAZARDOUS COMBUSTION PRODUCTS:

Sawing, sanding or machining can produce ligno-cellulosic fibers as a by-product that may present an explosion hazard.

ACCIDENTAL RELEASE MEASURES:

LAND SPILL:

Generally not applicable to panel products, however if a spill occurs the applicable Federal, Provincial, state, and local regulations must be followed.

WATER SPILL:

Generally not applicable to panel products, however if a spill occurs the applicable Federal, Provincial, state, and local regulations must be followed.

HANDLING AND STORAGE:

STORAGE:

This product should not be stored in any area where exposure to water would be likely. This product should be kept away from areas of high humidity and high temperature or near an ignition source. High temperature and improper ventilation could allow formaldehyde vapors to concentrate in the storage area. Adequate ventilation of the storage area will help reduce the build-up of formaldehyde vapors. This product should be stored in an area of relative humidity and temperature that approximates end use.

EXPOSURE CONTROLS/PERSONAL PROTECTION:

ENGINEERING CONTROLS:

Certain procedures of the remanufacturing process of this product could possibly produce ligno-cellulosic fibers or formaldehyde vapors. Provide adequate general and local exhaust ventilation to keep airborne contaminant concentration levels below the OSHA PELs.

PERSONAL PROTECTION:

RESPIRATOR:

Wear NIOSH/MSHA when the allowable exposure limits may be exceeded.

PROTECTIVE CLOTHING:

Wear side shield safety glasses during any of the remanufacturing processes of this product. Other protective equipment such as gloves and othe outer garments may be needed depending on conditions.

GENERAL HYGIENE:

Practice proper personal hygiene.

PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure: not applicable	Vapor Density: not applicable
Specific Gravity: generally < 1	Evaporation Rate: not applicable
Solubility in water: insoluble	Freezing Point: not applicable
ph: not applicable	Odor: Material dependant
Boiling Point: not aplicable	Appearance: Material dependant
Viscosity: not applicable	Physical State: Solid

STABILITY AND REACTIVITY

STABILITY:

Stable under normal conditions.

REACTIVITY:

Avoid product contact with any temperature sources that could induce thermal decomposition. Avoid product contact with oxidizing agents and strong acids.

HAZARDOUS DECOMPOSITION:

Thermal and/or thermal-oxidative decomposition can produce irritating and toxic fumes and gases, including carbon monoxide, hydrogen cyanide, polynuclear aromatic hydrocarbons, aldehydes and organic acids.

TOXICOLOGICAL INFORMATION:

LIGNO-CELLULOSIC FIBER:

ligno-cellulosic fiber - OSHA Hazard rating = 3.3 Moderately toxic with probable lethal oral dose to humans being 0.5-5 g/kg or about 1 pound for a 150 lb. person.

FORMALDEHYDE:

OSHA Hazard rating = 3 for local and systemic acute and chronic exposure. Highly toxic. Irritation studies: 150ug/3 days, intermittent exposure produced mild results: human eye, 1ppm/6 minutes produced mild results. Exposure to gaseous formaldehyde may cause temporary irritation to the nose and throat as well as lead to respiratory disorders. Studies show that exposure up to concentrations of 0.3ppm failed to produce irritation. Pre-existing respiratory disorders may be aggravated by exposure.

ECOLOGICAL INFORMATION:

None currently available.

DISPOSAL CONSIDERATIONS:

This panel is recyclable. It is, however, the users responsibility to determine at the time of disposal whether your product meets any applicable criteria for hazardous waste disposal. Disposal must follow applicable Federal, Provincial, state and local regulations.

TRANSPORT INFORMATION:

This product is not a DOT (Dept. of Transportation) hazardous material. It is the purchaser's responsibility to see if this product meets any regulations on their location.

REGULATORY INFORMATION:

OSHA: Wood products are not hazardous under the criteria of the Federal OSHA Hazard communication Standard 29 1910:1200. Formaldehyde emissions and ligno-cellulosic fibers generated in the re-manufacturing process may be hazardous.

DOT: This produce is not a DOT hazardous material.

TSCA: This product complies with the TSCA inventory requirements.

SARA: None

HUD: The HUD regulation of 24 CFR 3280 provides for third party certification of particleboard and interior plywood manufactured with urea-formaldehyde resins. The Large Scale Chamber Test method is used in formaldehyde testing of this product.

ANSI A208.2-1994 MDF: This industry consensus standard limits formaldehyde emissions from MDF to 0.3 ppm at a loading ratio of 0.08ft²/ft³. This product is in compliance with the emissions standards for this rule.

OTHER INFORMATION:

DEFINITION OF ACRONYMS:

ACGIH: American Conference of Government Industrial Hygenists
ANSI: American National Standards Institute
CAS: Chemical Abstracts Services Registry Number
DOT: Department of Transportation
IARC: International Agency for Research on Cancer
MSHA: Mining Saftey and Health Administration
NCI: National Cancer Institute
NIOSH: National Institute for Occupational Saftey and Health, U.S. Public Health Service, U.S. Department of Health And Human Services
OSHA: Occupational Saftey and Health Administration, U.S Dept. of Labor
PEL: Permissible Exposure Limit
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substances Control Act
TWA: Time-weighted Average