



MEDIUM DENSITY FIBERBOARD

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: Medium Density Fiberboard

TRADE NAME: MDF

SYNONYMS: N/A

CHEMICAL FAMILY: N/A

CHEMICAL FORMULA: N/A

CAS NUMBER: None

MANUFACTURER'S NAME AND ADDRESS:

**Clarion Boards, Inc.
143 Fiberboard Rd.
Shipperville, PA 16254**

EMERGENCY TELEPHONE NUMBER: 814-226-8961

DATE PREPARED OR REVISED: SEPTEMBER 2004 Rev. July, 2005

SECTION II - HAZARDOUS INGREDIENTS

Under some conditions and/or subsequent remanufacturing the following hazardous substances may be released.

COMPONENT	CAS #	EXPOSURE LIMIT (OSHA)*	EXPOSURE LIMIT (ACGIH)*
Formaldehyde*	50-00-0	0.75 ppm 8-hr TWA 2 ppm 15-min STEL	0.3 ppm Ceiling
Wood Dust/Fiber**	None	15 mg/m ³ 8-hr TWA (total dust) 5 mg/m ³ TWA (respirable fraction)	1.0 mg/m ³ TWA (inhalable dust) 10 mg/m ³ 15-min STEL

*In AFL-CIO v. OSHA 965 F. 2d 962 (11th Cir. 1992), the court overturned OSHA's 1989 Air Contaminants Rule, including the specific PELs for wood dust that OSHA had established at that time. The 1989 PELs were: TWA-5.0 mg/m³; STEL (15 min.) - 10.0 mg/m³ (all soft and hard woods, except Western red cedar); Western red cedar: TWA - 2.5 mg/m³.

**Wood dust is now officially regulated as an organic dust under the Particulates Not Otherwise Regulated (PNOR) or Inert or Nuisance Dust categories at PELs noted under Section II of this MSDS. However, a number of states have incorporated provisions of the 1989 standard in their state plans. Additionally, OSHA has announced that it may cite companies under the OSH Act General Duty Clause under appropriate circumstances for non-compliance with the 1989 PELs.

NOTE: Although Agency and Court decision(s) could affect these values, the Company will continue to utilize these values as the PEL.

SECTION III - PHYSICAL PROPERTIES

DESCRIPTION

Composite panel product composed of resin and wood fibers of varying percents (dependent on properties and thickness) pressed into panels of various sizes (normally 4 ft. X 8 ft.).

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PHYSICAL DATA

BOILING POINT - Not Applicable

SPECIFIC GRAVITY - Variable (Dependent on wood species and moisture content)

VAPOR DENSITY - Not Applicable

% VOLATILES BY VOLUME - Not Applicable

MELTING POINT - Not Applicable

VAPOR PRESSURE - Not Applicable

SOLUBILITY IN H₂O (% BY WT.) - Insoluble

EVAPORATION RATE (Butyl Acetate = 1) - Not Applicable

pH - Not Applicable

APPEARANCE AND ODOR - Light to dark colored solid. Color and odor are dependent on the wood species and time since board was manufactured.

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT - Not Applicable

AUTO IGNITION TEMPERATURE - 425 - 475 deg F

FLAMMABLE LIMITS - Not Applicable

FIRE EXTINGUISHING MEDIA - Water Spray, Carbon Dioxide

SPECIAL FIRE FIGHTING PROCEDURES - Fire fighting procedures for wood products are well known.

UNUSUAL FIRE AND EXPLOSION HAZARDS - MDF does not present a fire or explosion hazard. Sawing, sanding, or machining MDF could result in the creation of wood dust. Wood dust may present a strong to severe explosion hazard if a dust cloud contacts an ignition source. According to data contained in NFPA Standards, .04 ounce per cubic foot is the minimum explosive concentration for wood flour.

SECTION V - HEALTH HAZARD DATA

WOOD DUST/FIBER: May cause nasal dryness, irritation and obstruction. Coughing, wheezing, and sneezing sinusitis and prolonged colds have also been reported. Depending on species, may cause respiratory sensitization and/or irritation. IARC classifies wood dust as a carcinogen to humans (Group 1). This classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. 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 wood dust.

SIGNS AND SYMPTOMS OF EXPOSURE: Acute - may cause temporary irritation of skin, eyes, or respiratory system. If irritation persists consult a physician. Chronic - rats exposed to 14 ppm formaldehyde developed nasal cancer. The NCI epidemiology study of 26,000 workers found little, if any, evidence linking formaldehyde exposure to cancer. The EPA has classified formaldehyde a B-1 Probable Human Carcinogen. Formaldehyde is listed by the IARC and the NTP as an animal carcinogen.

EMERGENCY FIRST AID PROCEDURES

INHALATION, EYES, SKIN - Remove to fresh air

INGESTION - N/A

SECTION VI - REACTIVITY DATA

STABILITY - Stable

CONDITIONS TO AVOID - High relative humidity and high temperature increases the rate of formaldehyde emissions.

INCOMPATIBILITY (materials to avoid) - Strong oxidizing agents, strong acids

HAZARDOUS DECOMPOSITION PRODUCTS - Thermal and/or thermal-oxidative decomposition can produce irritating and potentially toxic fumes and gases, including CO, aldehydes and organic acids.

HAZARDOUS POLYMERIZATION - Will not occur.

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SECTION VII - SPECIAL PRECAUTION PROCEDURES

PRECAUTIONS AND SAFE HANDLING: Provide adequate ventilation to reduce the possible build-up of formaldehyde vapors.

STEPS TO BE TAKEN IF SPILLED OR RELEASED: See above.

WASTE DISPOSAL METHOD: Recycle, incinerate or landfill in accordance with local, state, and federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

Not required. However, the wearing of NIOSH approved breathing protection for exposure to wood dust may be necessary. Respirators are required if air contaminants exceed OSHA PEL.

VENTILATION

Necessary to remove dust in sanding, sawing and machine processes.

Ventilate to assure formaldehyde concentration is less than the OSHA PEL.

EYE PROTECTION

Wear appropriate eye protection or safety goggles if wood dust exposure is likely.

SECTION IX - REGULATORY INFORMATION

CALIFORNIA PROPOSITION 65 - Safe Drinking Water and Toxic Enforcement Act: Title 22 California Code of Regulations California Proposition 65 provides for labeling and disclosure of the presence of a chemical(s) known to the State of California to cause cancer or reproductive toxicity. This product contains Formaldehyde in extremely low levels and may, depending on conditions, emit Formaldehyde. Based on a preponderance of data and the recognition by OSHA that 0.75 ppm TWA is a safe employee exposure level, we do not feel that exposure to this product presents significant risk to users.

MINNESOTA – This product has not been tested for compliance with the Minnesota statutes for formaldehyde emissions. It cannot be used in the state for applications covered by Sections 144.495 and 325F.18 concerning the emission of Formaldehyde.

SARA 313 - This product does not contain chemical(s) in concentrations which should require reporting under SARA 313.

ODS: During the manufacture of this product there is no intended use of listed ozone depleting chemicals as defined in applicable EPA regulations.

IMPORTANT: Clarion Boards, Inc. believes the information contained in this MSDS to be accurate at the time of preparation and has been compiled using sources believed to be reliable. However, the Company makes no warrant, either expressed or implied concerning the accuracy or completeness of the information presented. It is the responsibility of the user to comply with local, state, or federal regulations concerning use of this product. It is the further responsibility of the buyer to research and understand safe methods of use, storage, handling and disposal of this product.