

Safety Data Sheet

Medium Density and High Density Fiberboard (MDF/HDF)

SECTION 1: IDENTIFICATION

Product Identifier	Medium Density and High Density Fiberboard (MDF / HDF)
Manufacturer	Kronospan, LLC 1 Kronospan Way Eastaboga, AL 36360 1-256-741-8755 (non-emergency)
Emergency Number	<u>Only</u> For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night 1-800-424-9300
Recommended use	Industrial use, construction of furniture, cabinets and doors

SECTION 2: HAZARD IDENTIFICATION

Physical State	Solid
Color	Straw yellow to medium brown.
Hazard Statement	In its intact state MDF/HDF panels are not hazardous materials. Panel edges and broken panels may cut through skin. Dust from MDF is hazardous and it is classified by the World Health Organization as causing cancer to humans. This product contains and may release formaldehyde.
Inhalation	Abrasive action may cause wood dust to be generated that may be an irritant to the respiratory system. Fiberboard can emit very low amounts of gaseous formaldehyde that decreases over time.

Eye Abrasive action may cause wood dust to be generated that may be an irritant to the eyes.

Skin Product may be an irritant to wood sensitive individuals.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS #	Concentration	Exposure Limit
Formaldehyde	50-00-0	< 0.1% by weight	OSHA PEL –TWA 0.75 ppm OSHA PEL- STEL 2 ppm ACGIH TLV- 0.3 ppm
Wood (Hardwood and Softwood of various species)	NA	> 90% by weight	OSHA PEL –TWA 15 mg/m3 Total Dust OSHA PEL- 5mg/m3 Respirable Dust ACGIH TLV- 1.0 mg/m3 Inhalable Dust

SECTION 4: FIRST AID MEASURES

General advice Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Eye Contact Gaseous formaldehyde and wood dust may irritate the eyes. Flush the eyes with water if contact is made with wood fiber..

Skin Contact Product may be an irritant and may cause contact dermatitis to wood sensitive individuals. Wash skin with soapy water. Seek medical advice for chronic symptoms of exposure.

Inhalation Gaseous formaldehyde and wood dust may irritate respiratory system. Seek fresh air if PEL values are exceeded. Seek medical advice for chronic symptoms of exposure.

Protection of First-Aiders No actions should be taken that involves risk to any personnel without the proper training.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing media Use water, dry chemical or carbon dioxide (CO2) to extinguish flames.

Special hazards arising from the substance or mixture Don't inhale smoke and gases produced during the combustion. Avoid the extinguishing to enter the sewage systems and water bodies.

Flammability The material will burn. Avoid wood dust contact with ignition sources. Avoid smoking in the workplace and storage rooms.

LEL 40gr/m³ for wood dust

Auto Ignition Temperature 425 – 475 °F

Flash Point None

Hazardous combustion Products

Smoke, Fume, Oxides of carbon, and Aldehydes.

Protective measures in Fire Evacuate area. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

NFPA rating Health 0 Flammability 1 Reactivity 0

SECTION 6: ACCIDENTAL RELEASE MEASURES

Not Applicable to finished product. Use precaution to control dust generation from abrasive cutting or sanding of the finished product.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling No special handling instructions

Storage Provide adequate ventilation to avoid possible buildup of formaldehyde emissions.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:

Name	CAS #	Concentration	Exposure Limit
Formaldehyde	50-00-0	< 0.1% by weight	OSHA PEL –TWA 0.75 ppm OSHA PEL- STEL 2 ppm ACGIH TLV- 0.3 ppm
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Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

TWA – Time Weighted Average 8 hours

STEL – Short Term Exposure Limit 15 minutes

Engineering Measures

No special ventilation requirements under ordinary conditions. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. When cutting, drilling, sanding, planing and routing; use tools that capture all the dust at the source and work environment should be kept well ventilated.

Personal Protection Measures

Eye/face Protection	No special ventilation requirements under ordinary conditions. If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate such as sanding, sawing, machining fiberboard. Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	No special ventilation requirements under ordinary conditions. Wood sensitive individuals should take precautions to avoid skin contact by wearing appropriate protective gloves and clothing.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Physical State and Description	Solid, a composite panel of lingo-cellulose fibers bound with thermo set resin.
Color	Straw yellow to medium Brown
Odor	Mild wood odor
Odor Threshold	No information available
Melting Point/Range	Not Applicable
Boiling Point/Range	Not Applicable
Flash Point	Not Applicable

Evaporation Rate	Not Applicable
Flammability Limits	Not Applicable
Vapor Pressure	Not Applicable
Vapor Density	Not Applicable
Relative Density	680kg/m ³ – 990 kg/m ³
Solubility in water	Negligible
Auto ignition Temperature	> 425°F

SECTION 10 : STABILITY AND REACTIVITY

Reactivity	Non-reactive
Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Extreme heat and high relative humidity may liberate emissions of formaldehyde.
Incompatible Materials	Strong acids and oxidizing agents
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Oxides of carbon, aldehydes and organic acids may release during thermal decomposition.
Hazardous Polymerization	Hazardous polymerization does not occur under normal conditions.

SECTION 11 : TOXICOLOGICAL INFORMATION

Acute Toxicity	Based on available data, it is not expected to be toxic. However, the product itself may liberate formaldehyde if not stored properly and or wood dust if cut, sanded, or other abrasive action is applied.
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Inhalation	Studies suggest that cutting, sanding, or other abrasive action to this product may generate air born wood dust and or formaldehyde which may irritate the respiratory system or aggravate existing respiratory conditions. Users may become sensitized to wood dust or formaldehyde emissions over extended periods of time. Seek professional care if any of these symptoms are experienced. Respiratory protection may be needed if OSHA PEL is exceeded.
Eye Contact	Wood fiber and or formaldehyde emissions from cutting, sanding, or other abrasive action may cause irritation of the eyes. Safety goggles or safety glasses are recommended.
Skin Contact	This product when cut, sanded, or abrasively altered may produce fiber that may be irritating to the skin for wood sensitized individuals. Gloves and or other skin barriers are recommended if this occurs.
Chronic Effects	Repeated exposure to dust increases the risk of nasal cavity cancers and lung fibrosis (scarring). Sensitization of respiratory system and skin, asthma and dermatitis risks are increased. The International Agency for Research on Cancer (IARC) had evaluated wood dust in Group 1: carcinogenic to humans. The International Agency for Research on Cancer (IARC) had evaluated formaldehyde in Group 1: carcinogenic to humans. More information on IARC evaluation on wood dust and formaldehyde can be found at www.iarc.fr People affected by occupation asthma may suffer severe symptoms (shortness of breath, wheezing, cough) if in contact with even small amount of wood dust.

SECTION 12 : ECOLOGICAL INFORMATION

Degradability	This product is expected to be inherently biodegradable. No other specific environmental data for this product is available.
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SECTION 13 : DISPOSAL CONSIDERATIONS

Waste Disposal Methods	Disposal should be in accordance with applicable regional, national and local laws and regulations. This
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product can be incinerated or land filled. Check with your local state, and federal regulations before disposal. This product is not classified as a hazardous waste under the federal; regulations as stated in 40 CFR 261, but be advised that some state or local disposal requirements may differ from federal requirements.

SECTION 14 : TRANSPORTATION

Product is not regulated by US DOT and is not classified to be a dangerous good for any mode of transport.

SECTION 15 : REGULATORY INFORMATION

U.S. Federal Regulations

US OSHA Hazardous Communication Standard This product is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200. Product contains formaldehyde in extremely low levels and depending on conditions cutting, sanding, or machining this product may emit emissions of wood dust and formaldehyde.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:

This product contains no "extremely hazardous substances".

SARA 302/304 Components No products found

SARA 311/312 Hazards No products found

Sara 313 – Emissions Reporting - This product contains the following EPRCRA section 313 chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372):

CAS #	Chemical Name	Percent by Weight
50-00-0	Formaldehyde	<= 0.10

California Prop. 65 Components

Warning: Product contains formaldehyde in extremely low levels and depending on conditions cutting, sanding, or machining this product may emit emissions of wood dust and formaldehyde.

SECTION 16 : OTHER INFORMATION

HMIS Rating

Health hazard: 0
Flammability: 1
Physical Hazard 0

NFPA Rating

Health hazard: 0
Fire Hazard: 1
Reactivity Hazard: 0

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Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. The user assumes all responsibility for the use, storage, and handling of this product. Kronospan LLC makes no warranty of any kind, expressed or implied, for the accuracy of the data contained within this SDS. The users should always follow the most current SDS available.

End of SDS