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**SECTION 1. IDENTIFICATION**

**Product Name:** MDF, HDF , MDP ( Particleboard)

**Synonyms:** Eucafiber , Eucafibra , Eucaplac HDF

**Product Description:** A Wood product composed of wood fibers and cured with amino resins.

**Recommend Use:** Building Materials , Decorative , Furniture and General Construction.

**Restriction Use:** MDF and HDF paneling are intended for dry interior use only and requires care in handling.

**Manufacturer and Distributor:** Eucatex of North America

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USA

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**SECTION 2. HAZARDS IDENTIFICATION**

**United States (US) :** According to: OSHA 29 CFR 1910.1200 HCS

**Classification of the substance or mixture :**

OSHA HCS 2012 • This product is generally an article but is regulated under OSHA for the release of wood dust during mechanical operations releasing dust. The product is not considered

Hazardous under the U.S OSHA 29 CFR 1910.1200 Hazard Communication Standard .The free formaldehyde levels are below OSHA reporting requirements. The classifications 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

**INHALATION:** Gaseous formaldehyde may cause temporary irritation to the nose and throat. Wood dust may cause nasal dryness, irritation, coughing and sinusitis. Repeated exposures (even below 5 mg/m<sup>3</sup>) to certain wood dusts such as Western Red Cedar can produce allergic responses in some sensitive individuals.

**EYE CONTACT:** Gaseous formaldehyde may cause temporary irritation to the eyes. Wood dust can cause mechanical irritation.

**SKIN CONTACT:** Both formaldehyde and various species of wood dust may evoke allergic contact dermatitis in sensitized individuals. If an allergy pre-exists or develops, it may be necessary to remove the sensitized worker from further exposure to formaldehyde bonded wood products.

**INGESTION:** Not applicable under normal conditions of use

**Prevention:**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe 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:**

**INHALATION:** Remove to fresh air. If persistent irritation, severe coughing or breathing difficulty occurs, get medical attention.

**EYE CONTACT:** Remove contact lenses. Flush eyes, including under eyelids, with large amounts of water. If irritation persists, get medical attention.

**SKIN CONTACT:** Wash affected areas with soap and water. If rash or persistent irritation or dermatitis occurs, get medical attention.

**INGESTION:** Not applicable under normal conditions of use. Get medical attention.

**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**

**MIXTURES :**

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

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.

\* Wood contains trace amounts of various chemicals present in the environment which are absorbed by trees through natural growth. A comprehensive listing of species is available upon request.

All products produced at EUCATEX mills are certified TO COMPLY TO THE C.A.R.B phase 2 emissions standards of the California Air Resource Board 17 CCR 93120.2(a)

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

<b>Composition</b>			
<b>Chemical Name</b>	<b>Identifiers</b>	<b>%</b>	<b>Hazardous</b>
Wood fibers *	CAS: Not Available	73% TO 93%	Yes
Urea	CAS: 57-13-6	0% TO 3%	Yes
Formaldehyde	CAS: 50-00-0	<0.1%	Yes

**SECTION 4 FIRST AID MEASURE**

**INHALATION:** Remove to fresh air. If persistent irritation, severe coughing or breathing difficulty occurs, get medical attention.

**EYE CONTACT:** Remove contact lenses. Flush eyes, including under eyelids, with large amounts of water. If irritation persists, get medical attention.

**SKIN CONTACT:** Wash affected areas with soap and water. If rash or persistent irritation or dermatitis occurs, get medical attention. **INGESTION:** Not applicable under normal conditions of use

**Most important symptoms and effects, both acute and delayed**

- Refer to Section 11 - Toxicological Information.

**SECTION 5 FIRE FIGHTING MEASURES**

**FLAME SPREAD:** Class III - Under 200- ASTM84

**FLASH POINT:** Not applicable

**EXPLOSIVE LIMITS:** Sawing, sanding or machining wood products can produce wood dust as a by-product. Wood dust is a strong to severe explosion hazard if a dust "cloud" contacts an ignition source. 212°F (100°C) has been suggested as the upper temperature limit for continuous exposure for wood without risk of ignition (wood dust may require a still lower temperature). An airborne concentration of 40 grams of dust per cubic meter of air is often used as the lowest explosion limit (LEL) for wood dust.

**HAZARDOUS COMBUSTION PRODUCTS:** Thermal-oxidative degradation, or burning, of wood can produce irritating and potentially toxic fumes and gases including carbon monoxide, aldehydes and organic acids.

**AUTOIGNITION TEMPERATURE:** 400°-500° F (204°-260°C)

**FIRE EXTINGUISHING MEDIA:** Water. Partially burned dust is especially hazardous if dispersed into the air. Remove burned or wet dust to open area after fire is extinguished.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Not applicable for product in purchased form. Sweep or vacuum dust for recovery or disposal.. Wood dust clean-up and disposal activities should be accomplished in a manner to minimize creation of airborne dust.

**SECTION 7. HANDLING AND STORAGE**

Provide adequate ventilation to reduce the possible build up of formaldehyde gas, particularly when high temperatures occur. UF bonded wood products should not be stored where exposure

to water could occur. Wood products are combustible and, therefore, should not be subjected to temperatures exceeding the auto ignition temperature. Water spray may be used to wet down wood dust generated by sawing, sanding or machining to reduce the likelihood of ignition or dispersion of dust into the air.

**SECTION 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** Due to the explosive potential of wood dust when suspended in 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. Provide local exhaust as necessary to meet OSHA requirements for formaldehyde and wood dust exposure.

**RESPIRATORY PROTECTION:** Wear NIOSH/OSHA approved respirator when the permissible OSHA exposure limits to formaldehyde and/or wood dust may be exceeded.

**EYE PROTECTION:** Recommend goggles or safety glasses as conditions indicate when sawing, sanding or machining wood products.

**SKIN PROTECTION:** Protective equipment such as gloves and outer garments may be needed to reduce skin contact.

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

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**GENERAL PROPERTIES**

<b>BOILING POINT</b>	Not Applicable	<b>SPECIFIC GRAVITY:</b>	<1.0
<b>SOLUBILITY IN WATER:</b>	Not soluble	<b>PH</b>	Not Applicable

**VOLATILITY**

<b>MELTING POINT:</b>	Not Applicable	<b>VOC (VOL.)</b>	0%
<b>VAPOR PRESSURE</b>	Not Applicable	<b>VAPOR DENSITY:</b>	Not Applicable

**FLAMMABILITY**

<b>FLASH POINT</b>	Not Applicable	<b>UEL</b>	Not Applicable
<b>LEL</b>	Not Applicable	<b>Burning Time</b>	Not Applicable
<b>AUTOIGNITION</b>	425 to 475 F		

**SECTION 10. STABILITY AND REACTIVITY**

**STABILITY :** Stable

**CONDITIONS TO AVOID:** Wood dust generated from sawing, sanding or machining the product is extremely combustible. Keep in cool dry place away from ignition sources.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Oxidizing agents and drying oils.

**HAZARDOUS COMBUSTION PRODUCTS:** Thermal-oxidative degradation, or burning, of wood can produce irritating and potentially toxic fumes and gases including carbon monoxide,

aldehydes and organic acids.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**SECTION 11. TOXICOLOGICAL INFORMATION**

<b>Components</b>		
Urea	57-13-6	<p>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;</p> <p>Irritation: Skin-Human • 20 % 24 Hour(s) • Moderate irritation;</p> <p>Multi-dose Toxicity: Inhalation-Rat TCLo • 288 mg/m<sup>3</sup> 17 Week(s)-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(s)-Continuous; Tumorigenic:Neoplastic by RTECS criteria; Blood:Tumors; Blood:Lymphoma, including Hodgkin's disease</p>
Formaldehyde	50-00-0	<p>Acute Toxicity: Ingestion/Oral-Rat LD50 • 100 mg/kg; Inhalation-Rat LC50 • 203 mg/m<sup>3</sup>; Peripheral Nerve and Sensation:Spastic paralysis with or without sensory change; Behavioral:Convulsions or effect on seizure threshold; Behavioral:Excitement;</p> <p>Irritation: Eye-Rabbit • 750 µg 24 Hour(s) • Severe irritation; Skin-Rabbit • 2 mg 24 Hour(s) • Severe irritation;</p> <p>Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 500 mg/kg 20 Day(s)-Intermittent; Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:Transaminases; Inhalation-Mouse TCLo • 400 ppb 12 Week(s)-Intermittent; Lungs, Thorax, or Respiration:Other changes; Endocrine:Changes in spleen weight; Biochemical:Metabolism (intermediary):Other proteins; Mutagen: Micronucleus test • Inhalation-Human • 2 ppm 15</p> <p>Minute(s); Micronucleus test • Inhalation-Human • 0.1 ppm 8 Hour(s); Reproductive: Inhalation-Rat TCLo • 12 µg/m<sup>3</sup> 24 Hour(s)(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</p>

GHS Properties	Classification
Acute toxicity	OSHA 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
Skin sensitization	OSHA HCS 2012•Skin Sensitizer 1
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

**WOOD DUST:** Wood dust generated from sawing, sanding or machining this product may cause nasal dryness, irritation, coughing and sinusitis. The International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) classify wood dust as a human carcinogen (Group I). This classification is based primarily on increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. The evaluation 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.



**FORMALDEHYDE:** Exposure to gaseous formaldehyde may cause temporary irritation to the nose and throat as well as lead to respiratory disorders. However, in a thorough review of sensory/respiratory irritation studies of formaldehyde from the standpoint of occupational exposure, an expert panel has observed exposure up to concentrations of 0.3 ppm failed to produce irritation. With regard to respiratory disorders, studies have concluded the threshold for long-term chronic pulmonary effects is between 0.4 and 3 ppm and for chronic obstructive pulmonary disease is 2 ppm. Pre-existing respiratory disorders may be aggravated by exposure.

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. As with all foreign substances do not allow to enter the storm 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

### **Bioaccumulative potential**

- No data available

### **Mobility in Soil**

- No data available

**SECTION 13. DISPOSAL CONSIDERATIONS**

This product is not considered hazardous waste under Federal Hazardous Waste Regulations 40 CFR 261. Please be advised, however, state and local requirements for waste disposal may be different from federal regulations.

Incinerate or landfill in accordance with local, state and federal regulations.

**SECTION 14. TRANSPORT INFORMATION**

This product is not a DOT hazardous material.

**SECTION 15. REGULATORY INFORMATION**

**OSHA:** Wood products are not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, formaldehyde emissions from this product and wood dust generated by sawing, sanding or machining this product may be hazardous.

**TSCA:** This product complies with TSCA inventory requirements.

**SARA 313:** None.

**HUD:** The Department of Housing and Urban Development (HUD) regulation 24 CFR 3280 provides for third-party certification of particleboard and interior plywood manufactured with urea-formaldehyde resin for formaldehyde emissions. The maximum allowable level for particleboard and hardwood plywood is 0.3 ppm at a loading rate of 0.13 square feet/cubic foot. The maximum allowable level for prefinished plywood paneling is 0.2 ppm at a loading rate of 0.29 square feet/cubic foot. In both cases certification is made in accordance with FTM-2-1985 (ASTM E 1333-90), Large Scale Test Method for Determining Formaldehyde Emissions from Wood Products. Particleboard underlayment, industrial particleboard, particleboard mobile home decking manufactured by Eucatex is certified to meet this HUD standard.

**CALIFORNIA:** Proposition 65 provides for labeling and disclosure of the presence of chemical(s) known to the state to cause cancer or reproductive toxicity if ordinary use of the product will result in exposures above a no significant risk level. The products covered by this MSDS contain formaldehyde and may, depending on conditions such as temperature and relative humidity, emit formaldehyde gas. Formaldehyde gas is listed under Proposition 65 as a chemical known to the State to cause cancer. Eucatex has evaluated, according to the State regulations, the emission of formaldehyde gas from the products it manufactures and sells to California. It has been determined the emissions are below the no significant risk level and do not require warnings.

**ANSI A208.1-1993 PARTICLEBOARD:** This industry consensus standard limits formaldehyde emissions from emissions from particleboard flooring products (underlayment and mobile home decking) to 0.2 ppm at a loading rate of 0.13 square feet/cubic foot. Particleboard underlayment and particleboard mobile home decking manufactured by Eucatex meet this emission limitation. Industrial particleboard manufactured by Eucatex also meets this emission limitation as our own company standard.

**United States**

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• MDF and ingredients (unless listed below) N/A	N/A	Not Listed
Formaldehyde	50-00-00	1000Lb TQ

Environment

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• MDF and ingredients (unless listed below) N/A	N/A	Not Listed
•Formaldehyde	50-00-00	100 Lb Final RQ; 45.4 Kg Final RQ

U.S. - CERCLA/SARA - Section 304 Extremely Hazardous Substances EPCRA RQs

• MDF and ingredients (unless listed below) N/A	N/A	Not Listed
•Formaldehyde	50-00-00	100 Lb EPCRA RQ

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA TPQs

• MDF and ingredients (unless listed below) N/A	N/A	Not Listed
•Formaldehyde	50-00-00	500 Lb TPQ

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• MDF and ingredients (unless listed below) N/A	N/A	Not Listed
•Formaldehyde	50-00-00	0.1% de Minimis Concentration

**United States - California**

Environment

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

• MDF and ingredients (unless listed below)	N/A	Not Listed
•Formaldehyde	50-00-00	Carcinogen, initial date 1/1/08 (gas)
•Wood dust as Wood Dust, all soft and hard woods	N/A	Carcinogen, initial date 1/1/09

**SECTION 16 OTHER INFORMATION**

**LABEL TEXT:**

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**Wood Products**

**CAUTION!**

SAWING, SANDING OR MACHINING WOOD PRODUCTS CAN PRODUCE WOOD DUST WHICH CAN CAUSE A FLAMMABLE OR EXPLOSIVE HAZARD.

WOOD DUST MAY CAUSE LUNG, UPPER RESPIRATORY TRACT, EYE AND SKIN IRRITATION. SOME WOOD SPECIES MAY CAUSE DERMATITIS AND/OR RESPIRATORY ALLERGIC EFFECTS. THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (**IARC**) **HAS CLASSIFIED WOOD DUST AS A NASAL CARCINOGEN IN HUMANS.**

Avoid dust contact with ignition source. Wood dust clean-up and disposal activities should be accomplished in a manner to minimize creation of airborne dust. Avoid breathing dust. Avoid dust contact with eyes and skin.

**FIRST AID:** If inhaled, remove to fresh air. In case of contact, flush eyes and skin with water. If irritation persists, call a physician.

**IMPORTANT:** The information and data herein are believed to be accurate and have been



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MDF , HDF , MDP Safety Data Sheet

compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. Eucatex make no warranty of any kind, express or implied, concerning the accuracy or completeness of the information and data herein. The implied warranties of merchantability and fitness for a particular purpose are specifically excluded. Eucatex will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading.

This Safety Data Sheet is being furnished for similar urea-formaldehyde bonded wood products produced by different manufacturers. Consult labels, stamps and markings on the product or packaging for the exact identity of the manufacturer .

SAFETY DATA SHEET