Safety Data Sheet (SDS)



Glacier Clear Thin High Density Fiberboard

1. Identification

TRADE NAME(S): Glacier Clear Thin High Density Fiberboard

SYNONYMS and/or GRADES: None

PRODUCT USES: Building Materials

CHEMICAL NAME/CLASS: Wood Products

MANUFACTURER'S NAME: Weyerhaeuser

ADDRESS: 220 Occidental Ave. S, Seattle, WA 98104

EMERGENCY PHONE: (844) 523-4081 (3E Company)

BUSINESS PHONE: (206) 539-3910
INTERNET ACCESS: See Section 16
REVISED DATE: August 27, 2018

2. Hazard(s) Identification

Signal Word: DANGER

NOTE: This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous as the result of downstream activities (e.g. cutting, sanding) that reduces its particle size resulting in the potential hazards as described below.

Classification	Hazard Statement(s)	Pictogram(s)
HEALTH Carcinogen - Category 1A (H350)*	Wood dust may cause nasopharyngeal cancer and/or cancer of the nasal cavities and paranasal sinuses by inhalation	

2. Hazard(s) Identification (cont'd.)

Skin Irritation Category 2 (H315)	Causes skin irritation	^
Specific Target Organ Toxicity- Single Exposure (STOT) Category 3 (H335)	May cause respiratory irritation	!
Eye Irritation Category 2B (H320)	Causes eye irritation	None
Combustible Dust (OSHA Defined Hazard)	If converted to small particles during further processing, handling, or by other means, may form combustible dust concentrations in air	None

^{*}Hazard codes (GHS)

HMIS Rating (Scale 0-4): Health = 2^* Fire = 1 Physical Hazard = 0 NFPA Rating (Scale 0-4): Health = 1 Fire = 1 Reactivity = 0

Precautionary Statement(s):

Prevention Statements:

P202: Do not handle until all safety precautions have been read and understood.

P210: Keep away from sparks, flame or other heat sources.

P243: Take precautionary measures against static discharge.

P261+284: Avoid breathing dust. In case of inadequate ventilation wear an approved respirator suitable for conditions of use.

P271: Use outdoors or in a well-ventilated area.

P280: Wear appropriate protective equipment for eye and skin exposure.

Response Statements:

P304+P340+P313: If inhaled and breathing becomes difficult, remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a doctor or other qualified medical professional.

P333+P313: If skin irritation or rash occurs get medical advice/attention.

P352+P264: If on skin wash with plenty of soap and water.

P362+P364: Take off contaminated clothing and wash before reuse.

P305+P351+P338: If in eyes, rinse cautiously for several minutes. Remove contact lenses if present and easy to do so.

Disposal:

P501: Dispose of in accordance with federal, state and local regulations.

Ingredients of Unknown Acute Toxicity (>1%): NAP

3. Composition/Information on Ingredients

Ingredients	CAS#	Wt.%
Wood (wood dust, softwood or hardwood)	None	93-97
Resin solids: Polymeric Diphenylmethane Diisocyanate ¹ [C ₆ H ₃ (NCO)CH ₂] n (reacted)	101-58-8	3-5
Slack wax, petroleum	64742-61-6	<1

Common names: 1 Polymeric MDI (pMDI).

4. First Aid Measures

Inhalation: Remove to fresh air if respiratory symptoms are experienced. Seek medical help if persistent irritation, severe coughing, breathing difficulty or other serious symptoms occur.

Eye Contact: Treat dust in eye as a foreign object. Flush with water to remove dust particles. Remove contact lenses if present and easy to do so. Avoid touching or rubbing eyes to avoid further irritation or injury. Seek medical help if irritation persists.

Skin Contact: Wood dust can elicit contact dermatitis. Seek medical help if rash, irritation or dermatitis persists.

Skin Absorption: Not known to be absorbed through the skin.

Ingestion: Not applicable under normal use.

Symptoms or Effects:

Acute Symptoms/Effects – Wood and resin dust may cause mechanical irritation of the eyes and respiratory system. Dust can cause physical obstructions in the nasal passages, resulting in dryness of nose, dry cough, and sneezing.

Delayed Symptoms/Effects – Unique delayed effects are not anticipated after exposure. See Section 11 for additional information on chronic effects.

5. Fire-fighting Measures

Extinguishing Media and Restrictions: Water, carbon dioxide, dry powder and sand.

Specific Hazards, Anticipated Combustion Products: Thermal decomposition (i.e. smoldering, burning) products include carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, aliphatic aldehydes, terpenes, and polycyclic aromatic hydrocarbons.

Autoignition Temperature: Variable [typically 400°-500°F (204°-260°C)]

Special Firefighting Equipment/Procedures: No special equipment anticipated. Beware of potential combustible dust explosion hazard.

Unusual Fire and Explosion Hazards: Depending on moisture content, particle diameter and concentration, wood and resin dust may pose a flash fire or deflagration hazard. If suspended in air in an enclosure or container and ignited, an explosion may occur due to the development of internal pressure causing rupture. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the Minimum Explosible Concentration (MEC) for wood dusts. Conduct regular housekeeping inspections and cleaning to prevent excessive dust accumulations. Design and maintain control equipment to minimize fugitive combustible dust emissions. Ensure that ventilation systems are operating properly to capture, transport and contain combustible dust while controlling ignition sources. Reference NFPA 652 "Standard on the Fundamentals of Combustible Dust".

6. Accidental Release Measures

Steps to be taken in case Material Is Released or Spilled: Sweep or vacuum up for recovery and disposal. Avoid creating dusty conditions whenever feasible. Maintain good housekeeping to avoid accumulation of wood and resin dust on exposed surfaces. Use approved filtering facepiece respirator ("dust mask") or higher levels of respiratory protection as indicated and goggles where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort.

7. Handling and Storage

Precautions to be taken in Handling and Storage: Product dust may pose a combustible dust hazard. Keep away from ignition sources. Avoid eye contact. Avoid prolonged or repeated contact with skin. Avoid prolonged or repeated breathing of dusts. Store in well-ventilated, cool, dry place away from open flame.

8. Exposure Control Measures/Personal Protection

Exposure Limits/Guidelines:

Ingredient(s)	Agency	Exposure Limit(s)	Comments
Wood (wood dust, softwood or hardwood)	OSHA	PEL-TWA 15 mg/m³ (see footnote ^A below)	Total Dust (PNOR)
	OSHA	PEL-TWA 5 mg/m³ (see footnote A below)	Respirable dust
	ACGIH	TLV-TWA 1 mg/m ³	fraction (PNOR) Inhalable fraction
Polymeric Diphenylmethane Diisocyanate ^B	OSHA ACGIH	None None	

A In AFL-CIO v OSHA, 965 F. 2d 962 (11th Cir. 1992), the Court overturned OSHA's 1989 Air Contaminants Rule, including the specific PEL's for wood dust that OSHA had established at that time. The 1989 vacated PEL's were: 5 mg/m³ PEL-TWA and 10 mg/m³ STEL (15 min), all softwood and hardwood except Western Red Cedar. Wood dust is now regulated by OSHA as "Particulates Not Otherwise Regulated" (PNOR), which is also referred to as "nuisance dust". However, some states have regulated wood dust PEL's in their state plans. Additionally, OSHA indicated that it may cite employers under the OSH Act general duty clause in appropriate circumstances.

B This ingredient is the polymerized form of MDI resin.

Ventilation:

- LOCAL EXHAUST Provide local exhaust as needed so that exposure limits are met. Ventilation to control dust should be considered where potential explosive concentrations and ignition sources are present. The design and operation of any exhaust system should consider the possibility of explosive concentrations of product dust within the system. See "SPECIAL" section below. Use of tool mounted exhaust systems should also be considered, especially when working in enclosed areas.
- MECHANICAL (GENERAL) Provide general ventilation in processing and storage areas so that exposure limits are met.
- SPECIAL Ensure that exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or suppression systems designed and operated in accordance with applicable standards if the operating conditions justify their use.
- OTHER ENGINEERING CONTROLS Cutting and machining of product should preferably be done outdoors or with adequate ventilation and containment.

8. Exposure Control Measures/Personal Protection (cont'd.)

Personal Protective Equipment:

RESPIRATORY PROTECTION – Use filtering face piece respirator ("dust mask") tested and approved under appropriate government standards such as NIOSH (US),CSA (Canada), CEN (EU), or JIS (Japan) if exposure limits may be exceeded or for additional worker comfort or symptom relief. Use respiratory protection in accordance with jurisdictional regulatory requirements similar to the OSHA respiratory protection standard 29CFR 1910.134 following a determination of risk from potential exposures.

EYE PROTECTION – Approved goggles or tight fitting safety glasses are recommended when excessive exposures to dust may occur (e.g. during clean up) and when eye irritation may occur.

PROTECTIVE GLOVES – Cloth, canvas, or leather gloves are recommended to prevent direct contact and to minimize potential slivers and mechanical irritation from handling product.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT – Outer garments which cover the arms may be desirable in extremely dusty areas.

WORK/HYGIENE PRACTICES – Follow good hygienic and housekeeping practices. Clean up areas where dust settles to avoid excessive accumulation of this combustible material. Minimize compressed air blowdown or other practices that generate high airborne-dust concentrations.

9. Physical/Chemical Properties

Appearance: Solid composite board product with a wood odor.

Odor/Odor Threshold(s):	NAV
pH:	NAP
Melting/Freezing Point:	NAP
Boiling Point (@ 760 mm Hg) and Range:	NAP
Flash Point:	NAV
Evaporation Rate:	NAP
Flammability:	NAV
Lower/Upper Explosive Limits:	40,000 mg of dust per cubic meter of air is often used as
	the LEL for wood dusts.
Vapor Pressure (mm Hg):	NAP
Vapor Density (air = 1; 1 atm):	NAP
Relative Density:	NAP
Solubility:	<0.1
Partition Coefficient (n-octanol/water):	NAP
Autoignition Temperature:	Variable [typically 400°-500°F (204°-260°C)]
Decomposition Temperature:	NAV
Viscosity:	NAP
Other Properties:	NAP

10. Stability and Reactivity

Reactivity: N	IAP			
Hazardous P	olymerization:	May occur	×	Will not occu
Stability:	Unstable	Stable		
Conditions to	Avoid: Avoid all s	ources of ignition, prote	ct form	moisture.

Incompatibility (Materials to Avoid): Avoid contact with strong acids, bases, oxidizing agents and

drying oils.

10. Stability and Reactivity (cont'd.)

Hazardous Decomposition or By-Products: Natural decomposition of organic materials such as wood may produce toxic gases and an oxygen deficient atmosphere in enclosed or poorly ventilated areas. Spontaneous and rapid hazardous decomposition will not occur.

Sensitivity to Static Discharge: Airborne wood and resin dust may be ignited by a static discharge depending on airborne concentrations, particle size and moisture content (for wood particles).

11. Toxicological Information

Likely Route(s) of Exposure:

■ Ingestion:

Skin: DustInhalation: DustEve: Dust

Signs and Symptoms of Exposure: See section 4.

Wood Dust - NTP: According to its Report on Carcinogens, Fourteenth Edition, NTP states, "Wood dust is known to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in humans". An association between wood dust exposure and cancer of the nasal cavity has been observed in case reports, cohort studies, and case-control studies that specifically addressed nasal cancer. Strong and consistent associations with cancer of the nasal cavities and paranasal sinuses were observed both in studies of people whose occupations are associated with wood dust exposure and in studies that directly estimated wood dust exposure. 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. There is inadequate evidence for the carcinogenicity of wood dust from studies in experimental animals according to NTP.

Wood Dust: 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 to 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 oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum.

Carcinogenicity Listing(s):

NTP: Wood dust, Known Human Carcinogen.

IARC Monographs: Wood dust, Group 1 - carcinogenic to humans.

OSHA Regulated: None.

Toxicity Data: No specific information available for product or material in purchased form. Individual component information is listed below.

Components:

Wood dust (softwood or hardwood)

Dusts generated from sawing, sanding or machining the product may cause respiratory irritation, nasal dryness and irritation, coughing and sinusitis. NTP and IARC (Group 1) classify wood dust as a human carcinogen. See Section 2 above.

Target Organs: Eyes, skin, and respiratory system.

Note: Weyerhaeuser evaluated the studies referenced in the ACGIH® TLV® Documentation for Wood Dust and others which included potential allergenic references for wood species which may cause skin or respiratory sensitization. There are a limited number of studies of highly variable consistency which reference sensitization from some species of wood. When the total weight of evidence is considered this product is considered to be an eye, skin and respiratory irritant and not a respiratory or skin sensitizer according to health hazard classification criteria.

12. Ecological Information

Ecotoxicity: NAV for finished product.

Biopersistance and Degradability: The wood in this product would be expected to be biodegradable.

Polymeric MDI

The effects from a simulated accidental pollution event in a pond with polymeric MDI on different trophic levels of the aquatic ecosystem were investigated (Heimbach F. et.al., 1996). Neither monomeric MDI nor its potential reaction product MDA (4, 4 *-diphenylmethanediamine) was detected in water or accumulated by fish. The MDI polymerized to inert polyurea on the sediment of the test ponds. This polymerization formed carbon dioxide, released as bubbles which floated to the water surface. There was no direct effect on the pelagic community (phytoplankton, zooplankton, fish, and macrophytes) of the test ponds

Bioaccumulation: Not expected to bio accumulate.

Soil Mobility: NAV

Other Adverse Effects: NAP

13. Disposal Considerations

Waste Disposal Method: Dry land disposal or incineration is acceptable in most areas. It is, however, the user's responsibility to determine at the time of disposal whether your waste meets any jurisdictional restrictions. Note that wood and resin dust may pose a combustible dust hazard.

14. Transport Information

Mode: (air, land, water) Not regulated as a hazardous material by the U.S. Department of Transportation. Not listed as a hazardous material in Canadian Transportation of Dangerous Goods (TDG) regulations. Not regulated as a hazardous material by IMDG or IATA regulations concerning the transport of hazardous materials.

UN Proper Shipping Name:
UN/NA ID Number:
NAP
Hazard Class:
NAP
Packing Group:
NAP
Environmental Hazards (Marine

Pollutant):

Special Precautions NAP

15. Regulatory Information

TSCA: All components of this product are listed on the TSCA inventory.

CERCLA: NAP

DSL: All components of this product are listed on the Canada DSL.

OSHA: Wood products are not hazardous under the criteria of the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, dust generated by sawing, sanding or machining activities is considered a hazardous chemical.

15. Regulatory Information (cont'd.)

STATE RIGHT-TO-KNOW:

California Proposition 65 -

WARNING: This product can expose you to chemicals including wood dust which are known to the State of California to cause cancer. Drilling, sawing, sanding or machining wood products can expose you to wood dust. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood.

<u>Pennsylvania</u> – When cut or otherwise machined, the product may emit wood dust. Wood dust appears on Pennsylvania's Appendix A, Hazardous Substance Lists.

<u>New Jersey</u> – When cut or otherwise machined, the product may emit wood dust. Wood dust appears on New Jersey's Environmental Hazardous Substance List.

SARA 313 Information: This material does not contain any chemical ingredient (s) that exceed the de minimis reporting levels established by SARA Title III, section 313 and 40 CFR section 372.

SARA 311/312 Hazard Category: This material has been reviewed according to the EPA "Hazard Categories" promulgated under SARA Title III Sections 311 and 312 and is considered, under applicable definitions, to meet the following categories:

An immediate (acute) health hazard Yes
A delayed (chronic) health hazard Yes
A corrosive hazard No
A fire hazard No
A reactivity hazard No
A sudden release hazard No

FDA: Not intended for use as a food additive or indirect food contact item.

WHMIS Classification: Wood and products made from wood are exempt from WHMIS per the Hazardous Products Act (HPA). However, wood dust released during the use or modifications of wood products may be hazardous. See Section 2 for health and combustible dust hazard information.

16. Other Information

Date Prepared: 12/24/2016 **Date Revised:** 08/27/2018

Prepared By: Weyerhaeuser Company Health and Safety.

Weyerhaeuser SDS and label available on:

http://www.wy.com/sustainability/environment/product-stewardship/safety-data-sheets/

User's Responsibility: The information contained in this Safety Data Sheet is based on the experience of occupational health and safety professionals and comes from sources believed to be accurate or otherwise technically correct. It is the user's responsibility to determine if the product is suitable for its proposed application(s) and to follow necessary safety precautions. The user has the responsibility to ensure that the most current SDS is used.

16. Other Information (cont'd.)

Definition of Common Terms:

ACGIH® = American Conference of Governmental Industrial Hygienists

C = Ceiling Limit

CAS# = Chemical Abstracts System Number DOT = U. S. Department of Transportation

DSL = Domestic Substance List

EC# = Identifying Number Assigned to Chemicals Contained in the European Inventory of

Existing Chemical Substances (EINECS)

EC₅₀ = Effective Concentration That Inhibits the Endpoint to 50% of Control Population

EPA = U.S. Environmental Protection Agency

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HMIS = (Canada) Hazardous Materials Identification System

HNOC = Hazards Not Otherwise Classified

IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods

LC₅₀ = Concentration in Air Resulting in Death To 50% of Experimental Animals

LCLo = Lowest Concentration in Air Resulting in Death

LD₅₀ = Administered Dose Resulting in Death to 50% of Experimental Animals

LDLo = Lowest Dose Resulting in Death

LEL = Lower Explosive Limit LFL = Lower Flammable Limit

MSHA = Mine Safety and Health Administration

NAP = Not Applicable NAV = Not Available

NIOSH = National Institute for Occupational Safety and Health

NFPA = National Fire Protection Association

NPRI = (Canada) National Pollution Release Inventory

NTP = National Toxicology Program

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Limit

PNOR = Particulate Not Otherwise Regulated
PNOS = Particulate Not Otherwise Specified
RCRA = Resource Conservation and Recovery Act
STEL = Short-Term Exposure Limit (15 minutes)
STP = Standard Temperature and Pressure

TCLo = Lowest Concentration in Air Resulting in a Toxic Effect

TDG = (Canada) Transportation of Dangerous Goods
TDLo = Lowest Dose Resulting In a Toxic Effect

TLV = Threshold Limit Value
TSCA = Toxic Substance Control Act
TWA = Time-Weighted Average (8 hours)

UFL = Upper Flammable Limit

WHMIS = (Canada) Workplace Hazardous Materials Information System

Glacier Clear Thin High Density Fiberboard



Danger

Wood dust may cause nasopharyngeal cancer and/or cancer of the nasal cavities and paranasal sinuses by inhalation. May cause respiratory, skin and eye irritation.

May form combustible dust concentrations in air if small particles are formed during processing or handling.

Precautions: Do not handle until all safety precautions have been read and understood. Use outdoors or in a well-ventilated area. Avoid breathing dust and wear appropriate protective equipment for respiratory, skin or eye exposures. Prevent dust release and accumulations to minimize hazards. Take off contaminated clothing and wash before reuse. Keep dust away from ignition sources such as heat, sparks, and flame.

First Aid:

<u>If in eyes</u>, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Contact a qualified medical professional if symptoms persist.

If on skin, wash with soap and water. If skin irritation or rash occurs, get medical advice/attention.

<u>Inhalation</u>, if experiencing respiratory symptoms, remove to fresh air. Contact a qualified medical professional for serious or persistent respiratory symptoms.

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