

Safety Data Sheet (SDS)



Resinated Wood Dust (Saw Trimmings, Sawdust, and Sander Dust from Engineered Wood Products (EWP), Plywood, and/or Oriented Strand Board (OSB))

1. Identification

TRADE NAME(S): Resinated Wood Dust (Saw Trimmings, Sawdust, and Sander Dust from Engineered Wood Products (EWP), Plywood, and/or Oriented Strand Board (OSB))

NOTE: This material does not include ash, previously burned products, bark related debris or unpressed/uncured material.

SYNONYMS and/or GRADES: Resinated wood dust; Resinated sawdust, EWP/OSB/Plywood saw trimmings and sander dust.


PRODUCT USES: A manufacturing byproduct used primarily as a fuel source; also used as MDF feedstock and as animal bedding. NOTE: See additional precautionary information in Section 16 for use with animals.

CHEMICAL NAME/CLASS: Wood Products


MANUFACTURER'S NAME: Weyerhaeuser
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DATE: March 21, 2023

2. Hazard(s) Identification

Signal Word: **DANGER**

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.)

<p>Skin Irritation Category 2 (H315)</p> <p>Specific Target Organ Toxicity- Single Exposure (STOT) Category 3 (H335)</p>	<p>Causes skin irritation.</p> <p>May cause respiratory irritation.</p>	
<p>Eye Irritation Category 2B (H320)</p>	<p>Causes eye irritation</p>	<p>None</p>
<p>Combustible Dust (OSHA Defined Hazard)</p>	<p>Product contains small particles which may form combustible dust concentrations in air. Larger pieces, if converted to smaller particles during further processing may also form combustible dust concentrations in air.</p>	<p>None</p>

*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

Ingredient(s)	CAS#	Wt.%
Wood (wood dust, softwood or hardwood, wood chips, wood trimmings, sander dust) ¹	None	80-100
Slack wax	64742-61-6	0-20
Resin Solids: Polymeric Phenol-Formaldehyde and/or Polymeric Phenol-Resorcinol-Formaldehyde (reacted) ²	9003-35-4	0-20
Resin solids: Polymeric Diphenylmethane Diisocyanate ³ [C ₆ H ₃ (NCO)CH ₂] n (reacted)	9016-87-9	0-20
Chromium (III) (Cr ₂ O ₃) ⁴	1308-38-9	0-3
Arsenic (V) Oxide (As ₂ O ₅) ⁴	1303-28-2	0-3
Copper Oxide (CuO) ⁴	1317-39-1	0-3

NOTE: Resins are expected to be cured, reacted, and in the final state of the parent engineered wood, plywood and oriented strand panel products.

¹Common names: Wood chips, sawdust, dust and trimmings from engineered wood products, OSB and plywood.

²Phenol-Formaldehyde (PF) resin

³Polymeric MDI (pMDI)

⁴These ingredients are found only in Parallam Plus CCA treated trimmings.

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: Resinated wood dust may 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 – 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 and sand.

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

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.

6. Accidental Release Measures

Unusual Fire and Explosion Hazards: Depending on moisture content, particle diameter and concentration, resinated wood 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". Suspension of dust in the air during cleaning activities using compressed air, especially if done in enclosed areas, must be preceded by a risk assessment that includes identification and control of potential ignition sources if elevated airborne dust concentrations can occur.

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 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: Dried resinated wood 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 resinated wood dust. 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, logs, wood chips)	OSHA	PEL-TWA 15 mg/m ³ (see footnote ^A below)	Total Dust (PNOR)
	OSHA	PEL-TWA 5 mg/m ³ (see footnote ^A below)	Respirable dust fraction (PNOR)
	ACGIH	TLV-TWA 1 mg/m ³	Inhalable fraction
Resin: Phenol-formaldehyde	OSHA OSHA	PEL-TWA 0.75 ppm PEL-STEL 2 ppm	Free gaseous formaldehyde
	ACGIH ACGIH	TLV-TWA 0.1 ppm TLV-STEL 0.3 ppm	DSEN*, RSEN**
Resin: Polymeric Diphenylmethane Diisocyanate (pMDI)	OSHA ACGIH	None None	

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

Diphenylmethane Diisocyanate (MDI) ^C	OSHA ACGIH	Ceiling 0.02 ppm TLV-TWA 0.0005 ppm	Monomeric MDI only if present
Paraffin Wax	OSHA ACGIH	PEL-TWA 2 mg/m ³ TLV-TWA 2 mg/m ³	As fume
Chromium (III) ^D	OSHA ACGIH ACGIH	PEL-TWA 0.5 mg/m ³ TLV-TWA 0.5 mg/m ³ TLV-TWA 0.01 mg/m ³	As chromium As chromium As chromium
Arsenic (V)	OSHA ACGIH	PEL-TWA 0.01 mg/m ³ TLV-TWA 0.01 mg/m ³	As arsenic As arsenic
Copper	OSHA ACGIH	PEL-TWA 1 mg/m ³ TLV-TWA 1 mg/m ³	Dust and mist Dust and mist

^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 These material(s) may contain free formaldehyde (<0.1%, wt. %), which may be released depending on concentration and environmental conditions.

^C This ingredient is the polymerized form of MDI resin

^D Although Chromium VI is the original valence in the chromic acid used to treat Parallam CCA, it is reduced to Chromium III during the treating and fixation process - trace amounts of Chromium VI may remain.

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 wood dust within the system. See "SPECIAL" section below.

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 – Where feasible, handling of product should be done outdoors or with adequate ventilation and containment.

Personal Protective Equipment:

RESPIRATORY PROTECTION – Use filtering facepiece respirator ("dust mask") tested and approved under appropriate government standards such as NIOSH (US), CSA (Canada), CEN (EU), or JIS (Japan) where 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.

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

WORK/HYGIENE PRACTICES – Follow good personal hygiene and housekeeping practices. Clean up areas where wood dust settles to avoid excessive accumulation of this combustible material.

Eliminate or minimize compressed air blowdown or other practices that generate high airborne-dust concentrations.

9. Physical/Chemical Properties

Appearance: Light to dark colored, granular solids, saw dust, and wood chips. Color and odor are dependent on the wood species, resin(s) used and time since material was generated.

Odor/Odor Threshold(s):	NAV
pH:	NAP
Melting/Freezing Point:	NAP
Boiling Point (@ 760 mm Hg) and Range:	NAP
Flash Point:	NAP
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: NAP

Hazardous Polymerization: May occur Will not occur.

Stability: Unstable Stable

Conditions to Avoid: Avoid all sources of ignition.

Incompatibility (Materials to Avoid): Avoid contact with oxidizing agents and drying oils.

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 resinated wood dust may be ignited by a static discharge depending on airborne concentrations, particle size and moisture content.

11. Toxicological Information

Likely Route(s) of Exposure:

- Ingestion:
- Skin: Resinated wood dust
- Inhalation: Resinated wood dust
- Eye: Resinated wood dust

11. Toxicological Information (cont'd.)

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. 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: Formaldehyde Gas 29 CFR 1910.1048

Toxicity Data:

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.

Biopersistence and Degradability: The wood in this product is expected to degrade. However, depending on the resin(s) and degree of cure, these ingredients are expected to be resistant to biodegradation.

Bioaccumulation: Not expected to bioaccumulate.

Soil Mobility: NAV

Other Adverse Effects: NAP

13. Disposal Considerations

Waste Disposal Method: If disposed of or discarded in its purchased form, incineration is preferable, if allowed. Dry land disposal is acceptable in most states as saw dust is not normally considered a hazardous waste. However, the use of saw dust as animal bedding or absorbent materials may change the hazard classification of the saw dust once the product has absorbed a hazardous substance. It is the user's responsibility to determine at the time of disposal whether your product disposal meets RCRA criteria for hazardous/solid waste and/or acceptable conditions governing the land application of materials mixed with animal wastes. Follow applicable federal, state, and local regulations. Note that resinated wood dust may pose a combustible dust hazard.

14. Transport Information

Mode: (road) 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.

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

15. Regulatory Information

TSCA: NAV


CERCLA: NAP

DSL: NAV

OSHA: Finished wood products are not hazardous under the criteria of the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, wood dust generated by sawing, sanding, or machining activities during manufacturing or customer handling is considered hazardous.

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, and methanol, which are known to the State of California to cause birth defects or other reproductive harm. 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 and www.P65Warnings.ca.gov/wood.
Pennsylvania – Wood dust appears on Pennsylvania's Appendix A, Hazardous Substance List.
New Jersey – 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.

15. Regulatory Information

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: 3/21/2023

Date Revised: NA

Prepared By: Weyerhaeuser Company Health and Safety

Weyerhaeuser SDS 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.

NOTE: This SDS was prepared primarily to communicate hazards to workers and this information is intended for human exposure. Any use of this material involving live animals should be done in consultation with a veterinarian or other knowledgeable person with consideration of potential impacts to such animals, including skin contact, inhalation, and ingestion hazards. Certain animals may deliberately ingest bedding material and use of this material is not recommended in those instances. Organic materials such as wood can also naturally support fungal/microbial growth which may present skin and inhalation risk. It is the user's responsibility to evaluate use of this material with live animals.

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
DSEN	=	Dermal Sensitization
DSL	=	Domestic Substance List
EC#	=	Identifying Number Assigned to Chemicals Contained in the European Inventory of Existing Chemical Substances (EINECS)
EC ₅₀	=	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

16. Other Information (cont'd.)

HNOC	= Hazards Not Otherwise Classified
IARC	= International Agency for Research on Cancer
IATA	= International Air Transport Association
IMDG	= International Maritime Dangerous Goods
LC ₅₀	= Concentration in Air Resulting in Death To 50% of Experimental Animals
LCLo	= Lowest Concentration in Air Resulting in Death
LD ₅₀	= 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
RSEN	= Respiratory Sensitization
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

Resinated Wood Dust (Saw Trimmings, Sawdust, and Sander Dust from Engineered Wood Products (EWP), Plywood, and/or Oriented Strand Board (OSB))



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 contain combustible dust concentrations in air if small particles become airborne or 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:

If in eyes, 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.

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

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