

# Material Safety Data Sheet

## Wood Dust



### 1. PRODUCT INFORMATION

Product	Manufacturing Location
Wood Dust (untreated)	Various

Synonyms: Wood Flour, Sawdust, Sander Dust.

### 2. HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Name	CAS#	Percent	Agency	Exposure Limits	Comments
Wood	None	100	OSHA	PEL-TWA 15 mg/m <sup>3</sup>	Total dust
			OSHA	PEL-TWA 5 mg/m <sup>3</sup>	Respirable dust fraction
			ACGIH	TLV-TWA 5 mg/m <sup>3</sup>	Softwood total dust
			ACGIH	TLV-STEL 10 mg/m <sup>3</sup>	Softwood total dust
			ACGIH	TLV-TWA 1 mg/m <sup>3</sup>	Selected hardwood total dust (beech, oak, others)
			Recommended <sup>1</sup>	PEL-TWA 5 mg/m <sup>3</sup>	Softwood or hardwood total dust
			Recommended <sup>1</sup>	PEL-STEL 10 mg/m <sup>3</sup>	Softwood or hardwood total dust
			Recommended <sup>1</sup>	PEL-TWA 2.5 mg/m <sup>3</sup>	Western red cedar total dust

<sup>1</sup>Weyerhaeuser recommended exposure limits based on 1989 OSHA PELs. In 1992, the U.S. Court of Appeals for the Eleventh Circuit Court overturned OSHA's 1989 Air Contaminants Rule, which included specific PELs for wood dust established by OSHA at that time. Wood dust is now officially regulated as an organic dust in a category known as "Particulates Not Otherwise Regulated" (PNOR), or Nuisance Dust. However, a number of states have incorporated the OSHA PELs from 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 noncompliance with the 1989 PELs.

### 3. HAZARD IDENTIFICATION

**Appearance and Odor:** Light- to dark-colored granular solid. Wood dust may have a slight aromatic odor. Color and odor depend on the wood species and time since dust was generated. The wood component may consist of alder, aspen, beech, birch, cottonwood, fir, gum, hemlock, hickory, maple, oak, pecan, pine, poplar, spruce, walnut, and/or western red cedar.

**Primary Health Hazards:** The primary health hazard posed by this product is thought to be due to inhaling wood dust.

**Primary Route(s) of Exposure:**

- ( ) Ingestion:
- (x) Skin: Dust
- (x) Inhalation: Dust

**Medical Conditions Generally Aggravated by Exposure:** Wood dust may aggravate preexisting respiratory conditions or allergies.

**Chronic Health Hazards:** Wood dust, depending on the species, may cause allergic contact dermatitis and respiratory sensitization with prolonged, repetitive contact or exposure to elevated dust levels. Prolonged exposure to wood dust has been reported by some observers to be associated with nasal cancer.

**Carcinogenicity Listing:**

- |  |                    |
|--|--------------------|
| <input type="checkbox"/> NTP:                        | Not listed         |
| <input checked="" type="checkbox"/> IARC Monographs: | Wood dust, Group 1 |
| <input type="checkbox"/> OSHA Regulated:             | Not listed         |

**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 of 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.

#### 4. EMERGENCY AND FIRST-AID PROCEDURES

**Ingestion:** Not applicable under normal use.

**Eye Contact:** Wood dust may cause mechanical irritation. Treat dust in eye as foreign object. Flush with water to remove dust particles. Get medical help if irritation persists.

**Skin Contact:** Wood dust of certain species can elicit allergic contact dermatitis in sensitized individuals, as well as mechanical irritation resulting in erythema and hives. Get medical help if rash, irritation, or dermatitis persists.

**Skin Absorption:** Not known to occur under normal use.

**Inhalation:** Wood dust may cause obstruction in the nasal passages, resulting in dryness of nose, dry cough, sneezing, and headaches. Remove to fresh air. Get medical help if persistent irritation, severe coughing, or breathing difficulty occurs.

#### 5. FIRE AND EXPLOSION DATA

**Flash Point (Method Used):** NAP

**Flammable Limits:**

LEL: See below under "Unusual Fire and Explosion Hazards"

UEL: NAP

**Extinguishing Media:** Water, carbon dioxide, sand.

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

**Special Firefighting Procedures:** Use water to wet down wood dust to reduce the likelihood of ignition or dispersion of dust into the air. Remove burned, charred or wet dust to open, secure area after fire is extinguished.

**Unusual Fire and Explosion Hazards:** Depending on moisture content and more importantly, particle diameter, wood dust may explode in the presence of an ignition source. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dusts.

#### 6. ACCIDENTAL RELEASE MEASURES

**Steps to be Taken In Case Material Is Released or Spilled:** Wood dust may be vacuumed or shoveled for recovery or disposal. Avoid dusty conditions and provide good ventilation. Use NIOSH/MSHA-approved dust respirator and goggles where ventilation is not possible.

**Other Precautions:** Avoid open flame and contact with oxidizing agents. A NIOSH/MSHA-approved dust respirator and goggles should be worn when the allowable exposure limits may be exceeded.

## 7. HANDLING AND STORAGE

**Precautions to be Taken In Handling and Storage:** Avoid repeated or prolonged breathing of wood dust. Avoid eye contact and repeated or prolonged contact with skin. Keep in cool, dry place away from open flame.

## 8. EXPOSURE CONTROL MEASURES

### Personal Protective Equipment:

RESPIRATORY PROTECTION -- A NIOSH/MSHA-approved dust respirator is recommended when allowable exposure limits may be exceeded.

PROTECTIVE GLOVES -- Not required. However, cloth, canvas, or leather gloves are recommended to minimize potential mechanical irritation from handling product.

EYE PROTECTION -- Goggles or safety glasses are recommended in areas with high dust levels.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT -- Outer garments may be desirable in extremely dusty areas.

WORK/HYGIENE PRACTICES -- Follow good hygienic and housekeeping practices.

Clean up areas where wood dust settles to avoid excessive accumulation of this combustible material. Minimize blowdown or other practices that generate high airborne-dust concentrations.

### Ventilation:

LOCAL EXHAUST -- Provide local exhaust as needed so that exposure limits are met.

MECHANICAL (GENERAL) -- Provide general ventilation in processing and storage areas so that exposure limits are met.

SPECIAL -- Self-contained breathing apparatus (SCBA) recommended when fighting fire.

OTHER -- None.

## 9. PHYSICAL / CHEMICAL PROPERTIES

Boiling Point (@ 760 mm Hg):	NAP
Vapor Pressure (mm Hg):	NAP
Vapor Density (air = 1; 1 atm):	NAP
Specific Gravity (H <sub>2</sub> O = 1):	Variable; depends on wood species and moisture
Melting Point:	NAP
Evaporation Rate (Butyl acetate = 1):	NAP
Solubility in Water (% by weight):	Insoluble
% Volatile by Volume [@ 70°F (21°C)]:	NAP
pH:	NAP

## 10. STABILITY AND REACTIVITY

**Stability:**        () Unstable                    () Stable

**Conditions to Avoid:** Avoid open flame. Product may ignite at temperatures in excess of 400°F (204°C).

**Incompatibility (Materials to Avoid):** Avoid contact with oxidizing agents. Avoid open flame. Product may ignite at temperatures in excess of 400°F.

**Hazardous Decomposition or By-Products:** Thermal decomposition products include carbon monoxide, carbon dioxide, aliphatic aldehydes, rosin acids, terpenes, and polycyclic aromatic hydrocarbons.

**Hazardous Polymerization:**    () May occur    () Will not occur

## 11. TOXICOLOGICAL INFORMATION

Wood dust (softwood or hardwood) OSHA Hazard Rating = 3.3; moderately toxic with probable oral lethal dose to humans being 0.5-5 g/kg (about 1 pound for a 70 kg or 150 pound person).  
Source: *OSHA Regulated Hazardous Substances*, Government Institutes, Inc., February 1990.

## 12. ECOLOGICAL INFORMATION

No information available at this time.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** If disposed of or discarded in its purchased form, incineration is preferable. Dry land disposal is acceptable in most states. It is, however, the user's responsibility to determine at the time of disposal whether your product meets RCRA criteria for hazardous waste. Follow applicable federal, state, and local regulations.

## 14. TRANSPORT INFORMATION

Not regulated as a hazardous material by the U.S. Department of Transportation.

## 15. REGULATORY INFORMATION

### TSCA

All ingredients are on the TSCA inventory.

### STATE RIGHT-TO KNOW

This product is known to contain any substances subject to the disclosure requirements of:

- California Prop 65 - none
- New Jersey - none
- Pennsylvania - When cut or otherwise machined, the product may emit wood dust, a listed substance in Pennsylvania.

### SARA 313 Information

To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

### SARA 311/312 Hazard Category

This product 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 - no
- A delayed (chronic) health hazard - no
- A fire hazard - no
- A reactivity hazard - no
- A sudden release hazard - no

## 16. ADDITIONAL INFORMATION

**Date Prepared:** 12/10/85

**Date Revised:** 10/13/00

**Prepared By:** Safety & Health Risk Management

**User's Responsibility:** The information contained in this Material 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 this information is suitable for their applications and to follow safety precautions as may be necessary. The user has the responsibility to make sure that this sheet is the most up-to-date issue.

### **Definition of Common Terms:**

ACGIH	= American Conference of Governmental Industrial Hygienists
C	= Ceiling Limit
CAS#	= Chemical Abstracts System Number
EPA	= U.S. Environmental Protection Agency
IARC	= International Agency for Research on Cancer
LCLo	= Lowest concentration in air resulting in death
LC50	= Concentration in air resulting in death to 50% of experimental animals
LDLo	= Lowest dose resulting in death
LD50	= Administered dose resulting in death to 50% of experimental animals
MSHA	= Mining Safety and Health Administration
NAP	= Not Applicable
NAV	= Not Available
NIOSH	= National Institute for Occupational Safety and Health
NTP	= National Toxicology Program
OSHA	= Occupational Safety and Health Administration
PEL	= Permissible Exposure Limit
STEL	= Short-Term Exposure Limit (15 minutes)
TCLo	= Lowest concentration in air resulting in a toxic effect
TDLo	= Lowest dose resulting in a toxic effect
TLV	= Threshold Limit Value
TWA	= Time-Weighted Average (8 hours)
WHMIS	= Workplace Hazardous Materials Information System