

Materials Related to OSHA
Hazard Communication: Wood
Dust Data Sheet (5 Page) Wood
Dust Label (Warning)

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Wood Dust Data Sheet MSDS

<u>Trade Name:</u>	Wood Dust (Untreated)
<u>Synonyms:</u>	None
<u>CAS NO:</u>	None
<u>Physical Data:</u>	
Boiling point:	Not applicable
Specific Gravity:	Variable (Dependent on wood species and moisture content.)
Vapor Density:	Not applicable
% Volatiles by Vol.:	Not applicable
Melting Point:	Not applicable
Vapor Pressure:	Not applicable
Solubility in H ₂ O (% by Wt.):	Insoluble
Evaporation Rate (Butyl Acetate = 1):	Not applicable
pH:	Not applicable
Appearance and Odor:	Light to dark colored granular solid. Color and order are dependent on the wood species and time since dust was generated.

Fire and Explosion Data

Flash Point:	Not applicable
Auto Ignition Temperature:	Variable (typically 400-500° F)
Explosive Limits in Air:	40 grams/m ³ (LEL)
Extinguishing Media:	Water, CO ₂ , Sand
Special Fire Fighting Procedures:	Use water to wet down wood dust to reduce the likelihood of ignition or dispersion of

dust into the air. Remove burned or wet dust to open area after fire is extinguished.

Unusual Fire and Explosion Hazards:

Wood dust is a strong to severe explosion hazard if a dust “cloud” contacts an ignition source.

Health Effects Information

Exposure Limit:

ACGIH TLV®:
TWA – 5.0 mg/m³;
STEL (15min) – 10.0 mg/m³ (softwood);
TWA – 1.0 mg/m³ (certain hardwoods such as beech and oak)

See important footnote below concerning OSHA PELs for wood dust:

OSHA PEL:
TWA – 15.0 mg/m³ (total dust);
5.0 mg/m³ (respirable fraction)

Skin and Eye contact:

Wood dust can cause eye irritation. Various species of wood dust can elicit allergic contact: dermatitis in sensitized individuals.

Ingestion:

Not applicable

Skin Absorption:

Not Known to Occur

Inhalation:

May cause nasal dryness, irritation and obstruction. Coughing, wheezing and sneezing; sinusitis and prolonged colds have also been reported.

Chronic Effects:

Wood dust, depending on species, may cause dermatitis by prolonged, repetitive contact; may cause respiratory sensitization and/or irritation. NTP includes wood dust in the Annual Report on Carcinogens. LARC classifies wood dust a carcinogen to humans (Group 1). This classification is based primarily on LARC’s evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and par nasal sinuses associated with exposure to wood dust. LARC did not find sufficient evidence to associate hypopharynx, lung, lymphatic and hematopoietic systems,

stomach, colon or return with exposure to wood dust. The American Conference of Governmental Industrial Hygienist (ACGIH) has categorized wood dust (certain hardwoods) as a confirmed human carcinogen.

Reactivity Data

Conditions Contributing to Instability:

Stable under normal conditions.

Incompatibility:

Avoid contact with oxidizing agents and drying oils. Avoid open flame. Products may ignite at temperatures in excess of 400° F.

Hazardous Decomposition Products:

Thermal oxidative degradation of wood produces irritation and toxic fumes and gases, including CO, aldehydes, and organic acids.

Conditions Contributing to Politzerization:

Not applicable

Precautions and Safe Handling

Avoid eye contact.

Avoid repeated or prolonged contact with skin. Careful bathing and clean clothes are indicated after exposure.

Avoid prolonged or repeated breathing of wood dust in the air.

Avoid contact with oxidizing agents and drying oils.

Avoid open flame.

Generally Applicable Control Measures

Ventilation: Provide adequate general and local exhaust ventilation to maintain healthful working conditions.

Wear goggles or safety glasses. Other protective equipment such as gloves and approved dust respirators may be needed depending upon dust conditions.

Emergency and First Aid Procedures

Eyes:	Flush with water to remove dust particles. If irritation persists, get medical attention.
Skin:	If a rash or persistent irritation or dermatitis occur, get medical advice where applicable before returning to work where wood dust is present.
Inhalation:	Remove to fresh air. If persistent irritation, severe coughing, or breathing difficulties occur, get medical advice before returning to work where wood dust is present.
Ingestion:	Not applicable

Spill/Leak Clean Up Procedures

Sweep or vacuum spills for recovery or disposal; avoid creating dust conditions. Provide good ventilation where dust conditions may occur. Place recovered wood dust in a container for proper disposal.

Urea-Formaldehyde Bonded Wood Products MSDS

Product Identification:

Hardwood Plywood, Veneer Core Platforms, Uniply, Lumber Core Platforms, Particleboard, Medium Density Fiberboard (Urea-Formaldehyde Bonded), Medium Density Overlay

Synonyms:

VCPF, Blanks, LCPF, 2-ply, Plywood, PB, MDF, MDO

Trade Name:

None

Description

This panel products contains a hardwood veneer face (occasionally a decorative softwood face) bonded to wood components such as other wood veneer, particleboard, or medium density fiberboard (MDF) using urea-formaldehyde resin.

Potential Airborne Releases

The product may release small quantities of formaldehyde (CAS No. 50-00-0) in gaseous form. Emissions decrease through time as the panel age. Manual or mechanical cutting or abrasion processes performed on the product can result in generation of wood dust.

Physical Data

Boiling Point:	Not applicable
Specific Gravity (H ₂ O = 1):	< 1
Vapor Density:	Not applicable
% Volatiles by Vol.:	0
Melting Point:	Not applicable
Vapor Pressure:	Not applicable
Solubility in H ₂ O (% by Wt.):	< 0.1 %
Evaporation Rate (Butyl Acetate = 1):	Not applicable
pH:	Not applicable

Appearance and Order: Light to dark color. Color and odor are dependent upon wood species.

Fire and Explosion Data

Flash Point: Not applicable

Auto Ignition Temperature: Not available (will depend upon duration of exposure to heat source and other variables)

Explosive Limits in Air: See below under “Unusual Fire and Explosion Hazards”

Extinguishing Media: Water, Carbon Dioxide, Sand

Special Fire Fighting Procedures: None

Unusual Fire and Explosion Hazards: Sawing, sanding, or machining can produce wood dust as a byproduct which may present an explosion hazard if a dust cloud contacts an ignition source. An airborne concentration of 40 grams of dust per cubic meter of air is often used as the LEL for wood dust.

Reactivity Data

Conditions contributing to instability: Stable under normal conditions

Incompatibility: Avoid contact with oxidizing agents. Avoid open flame. Product may ignite in excess of 400° F.

Hazardous Decomposition Products: Thermal and/or thermal oxidative decomposition can produce irritating and toxic fumes and gases, including carbon monoxide, hydrogen cyanide, aldehydes, organic acids and polynuclear aromatic compounds.

Hazardous Polymerization: Not applicable

Health Effects Information

Exposure Limits:
Formaldehyde: OSHA PEL – TWA 0.75 ppm

	OSHA PEL – STEL 2 ppm ACGIH TLV – CEILING: 0.3 ppm
Wood Dust	OSHA PEL – TWA 5.0 mg/m ³ (total dust); 5.0 mg/m ³ (reparable fraction)
Wood Dust (softwood)	ACGIH TLV – TWA 5.0 mg/m ³ ACGIH TLV – STEL (15 min) 10.0mg/m ³
Wood Dust (Certain hardwoods such as beach and oak)	ACGIH TLV – TWA 1.0 mg/m ³
Eye contact:	Gaseous formaldehyde may cause temporary irritation or a burning sensation. Wood dust can cause mechanical irritation.
Skin Contact:	Both formaldehyde and various species of wood dust may evoke allergic contact dermatitis in sensitized individuals.
Ingestion:	Not likely to occur
Inhalation:	
Gaseous formaldehyde	May cause temporary irritation to eyes, nose and throat. Some reports suggest that formaldehyde may cause respiratory sensitization, such as, asthma, and that pre-existing respiratory disorders may be aggravated by exposure.
	Formaldehyde is listed by the International Agency for Research on Cancer (IARC) as a probable human carcinogen. The National Toxicology Program (NTP) includes formaldehyde in the Annual Report on Carcinogens. Formaldehyde is regulated by OSHA as a potential cancer agent.
	In studies involving rats, formaldehyde has been shown to cause nasal cancer long-term exposure to very high concentrations (14+ ppm) far above those normally found in the workplace using this product. The National Cancer Institute (NCI) conducted an epidemiological study of industrial workers

exposed to formaldehyde (Published June 1986). The NCI concluded that the data provides little evidence that mortality from cancer is associated with formaldehyde exposure at the levels experienced by workers in the study.

Wood Dust

May cause nasal dryness, irritation and coughing, wheezing, and sneezing; sinusitis and prolonged colds have also been reported. Depending on species, may cause respiratory sensitization and/or irritation. IARC classifies wood dust as a carcinogen to humans (Group 1). This classification is based primarily on IARC's evaluations of increased risk in the occurrence of adenocarcinoma of the nasal cavities and paranasal sinuses associated with exposure to wood dust. IARC did not find sufficient evidence to associate cancer of the larynx, pharynx, lung, hypopharynx, lymphatic system, stomach and hematopoietic systems, colon or rectum with exposure to wood dust. The NTP includes wood dust in The Annual Report on Carcinogens.

Precautions, Safe Handling

Formaldehyde: Provide adequate ventilation to reduce the possible buildup of formaldehyde gas, particularly when high temperatures occur.

Wood Dust: Avoid dusty conditions and provide good ventilation.

Generally Applicable Control Measures

Ventilation: Provide adequate general and local exhaust ventilation to keep airborne contaminant concentration levels below the OSHA PELs

Personal Protective Equipment: Wear goggles or safety glasses when manufacturing or machining the product. Wear NIOSH/MSHA approved respirator when the allowable exposure limits may be exceeded. Other protective equipment such as gloves and outer garments may be needed depending on dust conditions.

Emergency and First Aid Procedures

Eye:	Flush eyes with large amounts of water. Remove to fresh air. If irritation persists, get medical attention.
Skin:	Wash affected areas with soap and water. Get medical advice if rash or persistent irritation or dermatitis occurs
Inhalation:	Remove to fresh air. Get medical advice if persistent irritation, severe coughing or breathing difficulty occurs.
Ingestion	Not applicable