

===== **HEALTH EFFECTS INFORMATION** =====

Exposure Limit

ACGIH TLV (R): TWA-5.0 mg/m³; STEL 915 min)-10.0

1) See important footnote below OSHA PEL: TWA-15.0 mg/m³ (total dust); concerning OSHA PEL's for wood 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.

Chronic Effects

Coughing, wheezing and sneezing; sinusitis and prolonged colds have also been reported. Wood dust, depending on species, may cause dermatitis on prolonged, repetitive contact; 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 evaluation of increased risk in the occurrence of adenocarcinomas of nasal cavities and paranasal sinuses associated with exposure to wood dust. IARC 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.

1) In *AFL-CIO v OSHA* 965F. 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 the time. The 1989 PELs were: TWA-5.0 mg/m³; STEL (15 min)-10.0 mg/m³ (all soft and hardwoods, except Western red cedar): Western Red Cedar: TWA-2.5 mg/m³.

Wood dust is now officially regulated as an organic dust under the Particulates Not Otherwise Regulated (PNOR) or Inert or Nuisance Dust categories at PEL's noted under Health Effects Information section of this MSDS. However, a number of states have incorporated provisions of 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 non-compliance with the 1989 PEL's

===== **REACTIVITY DATA** =====

Conditions Contributing to Instability

Stable under normal conditions

Incompatibility

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

Hazardous Decomposition Products

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

Conditions Contributing to Polymerization 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 on 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.

===== **OTHER INFORMATION** =====

The information that is presented in this MSDS is believed to be accurate and has been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification.. The manufacture makes no warranty of any kind express or implied, concerning the accuracy or completeness of the information and data herein. The manufacture will not be liable for claims relating to any party's use of or reliance on information and data contained herein.

===== **TECHNICAL DATA** =====

Mesh to Micron Conversion Chart

Mesh Size	Micron Size
30	500
35	420
40	354
50	297
60	250
80	177
100	149
120	125
150	105
200	74

Hardwood Flour: Chemical & Physical Properties

Acidity (ph)	3.5 to 4.6
Ash Content	0.23 to 0.25 Hardgrove Index
Color	Light Brown to Tan
Density	12 to 18 Pounds / Cubic Feet
Moisture Content	4% to 6%, Dependent on Relative Humid
Solubility in Water	< 0.1%
Specific Gravity	0.5 to 0.8

Specifications for FO6 Hardwood Wood Flour

Acidity (ph)	3.5 to 4.6
Ash Content	0.23 to 0.25 Hardgrove Index
Color	Light Brown to Tan
Density	18 Pounds / Cubic Feet, Average
Moisture Content	Less than 8%
Solubility in H2O	< 0.1%
Specific Gravity	0.5 to 0.8
Retained on a 30 Mesh	Trace
Retained on a 40 Mesh	0-20%
Retained on a 50 Mesh	30-40%
Passing a 50 Mesh	50%