

Section 1. Product Identification

Product Name: Wood dust from untreated wood and wood products.

Synonyms: Finely divided wood particles, powdered wood, sawdust, wood shavings, sander dust.

Product Description: Mechanical or abrasive activities such as cutting, shaping, drilling, sanding or sawing conducted on untreated wood and untreated wood products can generate wood dust.

Product Use: A by-product; not generated for specific use.

Preparation Date: September 1995

Section 2. Hazardous Ingredients

Composition: Wood dust is primarily composed of cellulose, hemicellulose and lignin. There are also several compounds (mostly organic) known as wood extractives.

Substance	CAS No.	Percent	Exposure Limits
Wood Dust	None	100	1994-95 ACGIH TLVs TWA: 1 mg/m ³ * TWA: 5 mg/m ³ + STEL: 10 MG/M ³ +
			1989 OSHA PELs 8-hr, TWA: 5 mg/m ³ *+ STEL: 10 mg/m ³ *+ 8 hr, TWA: 2.5 mg/m ³ *

- * Wood dust (certain hardwood such as beech and oak)
- + Wood dust, softwood
- Wood dust, western red cedar

Section 3. Physical Data

Boiling Point:	Not applicable
Specific Gravity:	Dependent on wood species and moisture content.
Vapor Pressure:	Not applicable
Melting Point:	Not applicable
Vapor Density:	Not applicable
Solubility in H ² O (% by Wt.):	Variable
Evaporation Rate (Butyl Acetate = 1)	Not applicable
% Volatiles by Vol:	Variable
pH:	Not applicable
Appearance and Odor:	Light to dark colored granular solid. Color and odor are dependent on the wood species and time since dust was generated.

Section 4. Fire and Explosion Data

Flash point:	Not applicable
Auto-ignition Temperature:	Variable * (Typically 400 ^o - 500 ^o F)
Flammable Limits in Air by Volume:	Lower Explosive Limit: 40 grams/m ³ Upper Explosive Limit: Variable*

*The auto-ignition temperature and upper explosive limits for wood dust vary with exact composition, particle size, moisture level and rate of heating and dust concentration.

Section 4. Fire and Explosion Data (continued)

Extinguishing Media: Use dry chemical, carbon dioxide, water spray, or foam. For larger fires, use water spray, fog or alcohol foam.

Hazardous Combustion Products: Mostly carbon oxides, but wood is also known to release polycyclic aromatic hydrocarbons.

Fire and Explosion Hazards: Mechanical or abrasive activities which produce wood dust as a by-product may present a severe explosion hazard if a dust cloud contacts an ignition source. Wood dust may explode when in contact with strong acids and oxidants.

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

=====

Section 5. Reactivity Data

Stability/Polymerization: May become unstable and ignite spontaneously when stored in hot and humid areas, or when the product is partially burned or carbonized.

Incompatibility: Avoid contact with oxidizing agents and drying oils. Avoid open flame. Product may ignite at temperatures in excess of 400⁰ F.

Hazardous Decomposition Products: Thermal decomposition from 392⁰ F to more than 932⁰ F will result in the following: water, carbon dioxide, formic acid, acetic acid, carbon monoxide, inflammable vapors (methane) and wood coal.

Hazardous Polymerization: Not applicable

Section 6. Health Hazard Data

Exposure Routes: Inhalation, skin and eye contact.

Inhalation: Causes irritation and sensitization. Inhalation of wood dust may irritate the respiratory tract by causing: drying of the mucus, sneezing, irritation cough and expectoration. May cause some difficulty in breathing such as: bronchitis, nasal discharge, respiratory tract obstruction and more. May sensitize the respiratory system and cause asthmatic symptoms and signs. People with existing respiratory tract ailments, should avoid exposure to wood dust as they may suffer severe irritation and difficulty in breathing.

Skin Contact: Causes irritation and sensitization. Dermatitis has been reported in humans, nature of wood and origin of the dust has to be taken into consideration.

Skin Absorption: Not known to occur under normal use.

Eye Contact: Causes irritation. Conjunctivitis has been reported in humans, nature of the wood and origin of the dust has to be taken into consideration.

Effects of Chronic Exposure: Exposure to wood dust may cause asthmatic symptoms and signs. Chronic exposure to some species of wood and sensitivity of some workers may cause the outbreak of some allergies that can become a potential health hazard to these individuals.

Carcinogenicity: IARC classifies wood dust as a human carcinogen - Group I. This classification is based primarily on IARC's evaluation of marked increases in the occurrences of cancers in the nasal cavities and paranasal sinuses among workers exposed to wood dusts.

Mutagenicity: Exposure to wood dust may cause cellular changes in the nasal epithelium.

Section 7. Safe Handling Procedures/Control Measures

- Engineering Controls:** Enclose processes where possible to prevent dust dispersion into the workplace. Provide general or local ventilation systems to maintain airborne concentrations of wood dust below applicable provincial or federal standards. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source. To avoid static sparks, electrically ground and bond all equipment used in and around processes that involve wood dust generation.
- Administrative Controls:** Consider replacement and periodic medical exams of exposed workers with emphasis on the eye, skin and respiratory tract.
- Respiratory Protection:** Wear respirators provided by NIOSH for protection against dust where airborne concentrations exceed legislated exposure limits.
- Protective Clothing/ Equipment:** Wear protective gloves, boots, coveralls, aprons and gauntlets to prevent prolonged or repeated skin contact. Use suitable eye protection in dusty environments.
- Handling Procedures:** Avoid any source of heat and "clouds" of wood dust which can be a source of fire and explosion.
- Spill/Leak Procedures:** Wood dust should be cleaned up frequently. To avoid dispersing the dust in air, scoop up into containers or vacuum with an appropriate filter. Do not use compressed air for cleaning. Damp mop any residue. Place recovered wood dust in a container for proper disposal.
- Storage Requirements:** If wood dust is stored while awaiting disposal, keep in a cool area away from heat, ignition sources and oxidizing materials.
- Waste Disposal:** Dry land disposal is acceptable in most states. It is however the user's responsibility to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste material should be packaged, labeled, transported and disposed or, reclaimed in accordance with local, state, provincial and federal regulations.

Section 8. First Aid Measures

Inhalation: Move worker at once to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and get medical attention.

Skin Contact: Wash skin with soap or mild detergent and water, or flush affected area with water for a few minutes. If irritation persists, get medical attention.

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes, holding eyelids apart to ensure flushing of each entire eye. If irritation persists, get medical attention immediately.

=====

Section 9. User's Responsibility

The information contained in this Material Safety Data Sheet has been compiled from sources believed to be accurate and reliable and 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 in all circumstances. This Material Safety Data Sheet does not create a warranty of any kind concerning the accuracy or completeness of the information contained herein and the issuer, hereof, will not be liable for claims relating to any party's use or reliance on this information however based. The user has the responsibility to ensure that this Material Safety Data Sheet is the most up-to-date issue. It is the responsibility of the user to comply with any local, state and federal regulations concerning use of this product. It is the responsibility of the buyer to research and understand safe methods of storing, handling and disposing of this product.

=====

Section 10. Common Terms

ACGIH	American Conference of Government Industrial Hygienists
CAS No.	Chemicals Abstracts Systems Number
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration

Section 10. Common Terms (continued)

PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit (15 minutes)
TLV	Threshold Limit Value
TWA	Time Weighted Average (8 hours)

=====
Section 11. Company Identification*

Company Name:	Tolko Industries Ltd.
Address:	PO Box 39, 3203 30th Ave Vernon, BC V1T 6M1
Telephone No:	(604)545-4411
Fax No:	(604)545-5133

*Tolko is a manufacturer and supplier of untreated wood and untreated wood products. Our products do not contain significant amounts of wood dust but further processing of them may generate wood dust.