Material Safety Data Sheet

Weyerhaeuser

Mycostat Treated Lumber – Southern Pine

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1. Product Identification

Product	Manufacturing Location(s)
Mycostat Treated Lumber – Southern Pine	**USA:** Ayden, NC; Plymouth, NC **Canada:** None

Synonyms:

2. Hazardous Ingredients/Identity Information

Name	CAS#	Percent	Agency	Exposure Limits	Comments
Wood* (softwood and hardwood)	None	99-100	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, all species (except western red cedar)

[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: 8 hr TWA 5 mg/m^3; STEL (15 min) 10 mg/m^3 (all softwood and hardwood except Western Red Cedar); Western Red Cedar TWA 2.5 mg/m^3. Wood dust is now regulated by OSHA as "Particulates Not Otherwise Regulated" (PNOR), or "nuisance dust".
However, some states have incorporated the 1989 OSHA PELs in their state plans. Additionally, OSHA indicated that it may cite employers under the OSH Act general duty clause in appropriate circumstances for noncompliance with the 1989 PELs.

* The antisapstain (Mycostat-P50, K20) is used in low surface application rate treatment of this product, resulting in trace amounts of Mycostat P50, K20 residual on the surface of the wood after drying.

3. Hazard Identification

Primary Safety/Health Hazards:

Warning: Wood dust may pose a combustible dust explosion hazard if dried and suspended in air in sufficient concentrations and in proximity to an ignition source. Users of this product should examine the potential to generate wood dust during handling and processing and related combustibility hazards and controls. See additional comments in MSDS.

The primary health hazard posed by this product is thought to be due to exposure to airborne wood dust.

Appearance and Odor: Color and odor depend on the wood species and time since wood was treated. The product may have a faint wood odor having a color inherent to the species of wood that was treated.

Primary Route(s) of Exposure:

- ☐ Ingestion:
- ☒ Skin:
- ☒ Inhalation:
- ☒ Eye:

Medical Conditions Generally Aggravated by Exposure: Wood dust may aggravate pre-existing respiratory conditions or allergies.

Signs and Symptoms of Exposure:

Acute: Wood dust can cause eye irritation. Certain species of wood dust can elicit allergic contact dermatitis in sensitized individuals. Inhalation of wood dust may cause respiratory irritation, nasal dryness, coughing, sneezing, and wheezing.

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:

- ☒ NTP: Wood dust, Known Human Carcinogen.
- ☒ IARC Monographs: Wood dust, Group 1 - carcinogenic to humans.
- ☐ OSHA Regulated:

NTP: (Wood Dust) According to its Report on Carcinogens, Eleventh 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 many case reports, cohort studies, and case-control studies that specifically addressed nasal cancer.

IARC – **Group I:** Wood dust is carcinogenic to humans; there is inadequate evidence in experimental animals (March 2009 IARC Monograph 100C review). This classification is primarily based on studies showing an association between occupational exposure to wood dust and sinonasal and nasopharyngeal cancer. IARC did not find sufficient evidence of wood dust causing other types of cancer, including lung cancer.

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 particle. Seek 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. Dry Mycostat Treated Lumber products are not anticipated to cause skin irritation due to the very low application rate on the surface of the wood.

4. Emergency and First Aid Procedures (cont'd.)

Skin Absorption: Not known to occur under normal use.
Inhalation: Wood dust may cause unpleasant obstruction in the nasal passages, resulting in dryness of nose, dry cough, and sneezing. Remove to fresh air. Seek medical help if persistent irritation, severe coughing, allergic-type responses or breathing difficulty occurs.

5. Fire and Explosion Data

Flash Point (Method Used): NAP
Flammable Limits: **LFL =** See below under "Unusual Fire and Explosion Hazards" **UFL =** NAP
Extinguishing Media: Water, carbon dioxide, sand
Autoignition Temperature: Variable [typically 400°-500°F (204°-260°C)]
Special Firefighting Procedures: Antisapstain surface treatment may release acid gases and iodine compounds.
Unusual Fire and Explosion Hazards: Depending on moisture content, particle diameter and airborne concentration, 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. Reference NFPA Standards 654 and 664 for guidance. Ventilation systems should be kept clean and precautions should be taken to prevent sparks or other ignition sources.

HMIS Rating (Scale 0-4):	**Health =**	2*	**Fire =**	1	**Physical Hazard =**	0
NFPA Rating (Scale 0-4):	**Health =**	1	**Fire =**	1	**Reactivity =**	0

6. Accidental Release Measures

Steps to be Taken In Case Material Is Released or Spilled: Sweep up or vacuum up recovery or disposal. Avoid creating dusty conditions whenever feasible. Maintain good housekeeping to avoid accumulation of dried wood dust on exposed surfaces. Dried wood dust may pose a combustible dust hazard. Place recovered wood dust in a container for proper disposal.

7. Handling and Storage

Precautions to be Taken In Handling and Storage: Dried 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 wood dust. Avoid contact with oxidizing agents and drying oils.

8. Exposure Control Measures, Personal Protection

Personal Protective Equipment:
RESPIRATORY PROTECTION – A NIOSH-approved filtering facepiece respirator ("dust mask"; N95) or higher level of particulate protection depending on concentration is recommended when wood dust exposure limits may be exceeded or added worker comfort is desired. Use any respiratory protection in accordance with regulatory requirements (e.g. OSHA 1910.134 in USA).
EYE PROTECTION – Approved goggles or tight fitting safety glasses are recommended when excessive exposures to wood dust may occur (e.g. during clean up) and when eye irritation may occur.

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

PROTECTIVE GLOVES – Not required for finished and dried product. However, cloth, canvas, or leather gloves are recommended to minimize potential slivers or mechanical irritation from handling product. In the production phase when the wood is still wet from treatment, durable rubber gloves are recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT – Outer garments which cover the arms may be desirable in extremely dusty areas or in production areas when wood is still wet from treatment.

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. 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 if the operating conditions justify their use.

OTHER – NAP

9. Physical/Chemical Properties

Physical Description: Color and odor depend on the wood species and time since wood was treated. The product may have a faint wood odor having a color inherent to the species of wood that was treated.

Boiling Point (@ 760 mm Hg):	NAP
Evaporation Rate (Butyl Acetate = 1):	NAP
Freezing Point:	NAP
Melting Point:	NAP
Molecular Formula:	NAP
Molecular Weight:	NAP
Oil-water Distribution Coefficient:	NAP
Odor Threshold:	NAP
pH:	NAP
Solubility in Water (% by weight):	Insoluble
Specific Gravity (H_2O = 1):	Variable; depends on wood species and moisture
Vapor Density (air = 1; 1 atm):	NAP
Vapor Pressure (mm Hg):	NAP
Viscosity:	NAP
% Volatile by Volume [@ 70°F (21°C)]:	0

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.

10. Stability and Reactivity (cont'd.)

Hazardous Decomposition or By-Products: Spontaneous and rapid hazardous decomposition will not occur. Natural decomposition of organic materials such as wood may produce toxic gases and an oxygen deficient atmosphere in enclosed or poorly ventilated areas. Thermal decomposition (i.e. smoldering, burning) products include carbon monoxide, carbon dioxide, aliphatic aldehydes, resin acids, terpenes, and polycyclic aromatic hydrocarbons. Antisapstain surface treatment may release acid gases and iodine compounds as pyrolysis products.

Hazardous Polymerization: ☐ May occur ☒ Will not occur

Sensitivity to Mechanical Impact: NAP

Sensitivity to Static Discharge: NAP

11. Toxicological Information

Toxicity Data: No specific information available for product in purchased form. Individual component information is listed below.

Components:

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.

Treated wood dust generated from sawing, sanding or machining the product – may cause nasal dryness, irritation, coughing and sinusitis. NTP and IARC classify wood dust as a human carcinogen (IARC Group 1). See Section 3.

Mycostat- P50, K20: Note: Mycostat-P50, K20 is present in trace quantities in Mycostat Treated Lumber. Toxicity data for the actual treated product is unavailable. The following data is for Mycostat-P50, K20 blend:

K20: LD50 (rat, oral) = 2140 mg/kg moderately toxic. LD50 (acute dermal, rabbit) = >2000mg/kg severe skin irritant. LC50 (rat, inhalation) = 5.8 mg/l. Acute inhalation effects (rat, 4 hr) 290mg/m^3

P50: >600mg/kg (rat, oral)

Mycostat-P50, K20 data is based on internal studies performed by the manufacturer.

Target Organs: Eyes, skin, respiratory system.

12. Ecological Information

Environmental Fate: Will biodegrade in contact with the soil.

Environmental Toxicity: Mycostat- K20: LC50 (bluegill sunfish, 96 hr flow-through) 230 ug/l

13. Disposal Considerations

Waste Disposal Method: Waste Disposal Method: Incineration in accordance with local, state, and federal regulations is preferred because fugitive emissions can be effectively controlled. Landfill disposal in accordance with local, state, and federal regulations may be acceptable. Check local disposal requirements in your area prior to landfilling.

14. Transport Information

Mode: (Air, Land, water) 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).

14. Transport Information (cont'd.)

Proper Shipping Name:	NAP
Hazard Class:	NAP
UN/NA ID Number:	NAP
Packing Group:	NAP
Information Reported for Product/Size:	NAP

15. Regulatory Information

TSCA: NAP
CERCLA: NAP
DSL: NAP.
OSHA: Wood products per se are not hazardous under the criteria of the federal OSHA Hazard Communication Standard 29CFR 1910.1200. However, wood dust generated by sawing, sanding or machining this product may be hazardous and hence included under 1910.1200.
STATE RIGHT-TO-KNOW:
California Proposition 65: This product does not contain substances identified on the Proposition 65 list at levels that pose a significant risk for purposes of Section 25249.10(c) or result in an observable effect for purposes of Section 25249.10(c) of the Act.
Pennsylvania – Wood dust appears on Pennsylvania's Appendix A – Hazardous Substance Lists.
SARA 313 Information: This product does not contain any chemical ingredient (s) with known CAS numbers that exceed the de minimis reporting levels established by SARA Title III, section 313 and 40 CFR section 372.
SARA 311/312 Hazard Category:

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: D2A (wood dust: IARC Group 1)

16. Additional Information

Date Prepared: 09/23/2009
Date Revised: NAP
Prepared By: Weyerhaeuser Company Corporate Environment, Health & Safety
Weyerhaeuser MSDS available on: http://www.weyerhaeuser.com/Sustainability/MSDS
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 the product is suitable for its proposed application(s) and to follow necessary safety precautions. The user has the responsibility to make sure that this MSDS 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
DOT	=	U. S. Department of Transportation
DSL	=	Domestic Substance List

16. Additional Information (cont'd.)

EC50	=	Effective concentration that inhibits the endpoint to 50% of control population
EPA	=	U.S. Environmental Protection Agency
HMIS	=	Hazardous Materials Identification System
IARC	=	International Agency for Research on Cancer
IATA	=	International Air Transport Association
IMDG	=	International Maritime Dangerous Goods
LC50	=	Concentration in air resulting in death to 50% of experimental animals
LCLo	=	Lowest concentration in air resulting in death
LD50	=	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	=	Canadian National Pollution Release Inventory
NTP	=	National Toxicology Program
OSHA	=	Occupational Safety and Health Administration
PEL	=	Permissible Exposure Limit
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	=	Canadian 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	=	Workplace Hazardous Materials Information System