



Green Southern Pine Lumber– Mycostat Treated

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1. Product Identification

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

Synonyms: Anti-stain treated wood.

2. Hazardous Ingredients/Identity Information

Name	CAS#	Percent	Agency	Exposure Limits	Comments
Wood* (wood dust)	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

^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: 5 mg/m³ PEL-TWA and 10 mg/m³ STEL (15 min), all softwood and hardwood except Western Red Cedar. Wood dust is now regulated by OSHA as "Particulates Not Otherwise Regulated" (PNOR), which is also referred to as "nuisance dust". However, some states have incorporated the 1989 OSHA PEL's 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 PEL's.

* The antisapstain Mycostat PQ and Ferrobrite B is applied to the surface of this product with dry residual concentration of <0.1% (wt. %).

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 the wood was surface treated. The product may have a faint wood odor having a color of the southern pine being treated.

Primary Route(s) of Exposure:

- Ingestion:
- Skin:
- Inhalation:
- Eye:

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

Signs and Symptoms of Exposure:

Acute: Wood dust can cause eye irritation. Inhalation of wood dust may cause respiratory irritation, nasal dryness, coughing, sneezing, and wheezing.

Chronic Health Hazards: Southern pine wood dust 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:

Wood Dust - NTP: 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. Strong and consistent associations with cancer of the nasal cavities and paranasal sinuses were observed both in studies of people whose occupations are associated with wood dust exposure and in studies that directly estimated wood dust exposure. This classification is based primarily on increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. The evaluation 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. There is inadequate evidence for the carcinogenicity of wood dust from studies in experimental animals according to NTP.

Wood Dust: 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 irritation. Treat dust in eye as foreign object. Flush with water to remove dust particles. Seek medical help if irritation persists.

Skin Contact: Southern pine Wood dust has been reported to 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.

Skin Absorption: Not known to occur under normal use.

Inhalation: Green Southern Pine Lumber – Mycostat Treated 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 or if 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 gas compounds.

Unusual Fire and Explosion Hazards: Depending on moisture content, and more importantly, particle diameter and airborne concentration, wood dust may explode in the presence of an ignition source. For wood dust an airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL. 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 or vacuum up for recovery and disposal. Avoid creating dusty conditions whenever feasible. Maintain good housekeeping to avoid accumulation of dried wood on exposed surfaces. Dried wood may pose a combustible dust hazard. Place recovered wood dust in a container for proper disposal. Use NIOSH-approved respirator and goggles where ventilation is not possible and exposure limits may be exceeded.

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. Store in well-ventilated dry place away from open flame.

8. Exposure Control Measures, Personal Protection

Personal Protective Equipment:

RESPIRATORY PROTECTION – Use NIOSH approved filtering face piece respirator (“dust mask”) or higher levels of respiratory protection as indicated if there is a potential to exceed the exposure limits or for symptom relief or worker comfort. Use respiratory protection in accordance with regulatory requirements such as the OSHA respiratory protection standard 29 CFR 1910.134.

EYE PROTECTION – Approved goggles or tight fitting safety glasses are recommended when excessive exposures to dust may occur (e.g. during clean up) and when eye irritation may occur.

PROTECTIVE GLOVES – 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 nitrile or butyl 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 compressed air 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. Use of tool mounted exhaust systems should also be considered, especially when working in enclosed areas.

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 designed and operated in accordance with applicable standards if the operating conditions justify their use.

OTHER – Cutting & Machining of product should preferably be done outdoors or with adequate ventilation & containment.

9. Physical/Chemical Properties

Physical Description: Color and odor depend on the wood species and time since wood was surface treated. The product may have a faint wood odor having a color of the southern pine being 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):	<0.1
Specific Gravity (H₂O = 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.

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

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)

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 above.

Mycostat PQ- Note: Mycostat PQ is present in dilute quantities of <0.1% total weight in Mycostat Treated Lumber. Toxicity data for the final treated product is unavailable. The following data is for individual constituents in Mycostat PQ as applied:

Didecyl dimethyl ammonium chloride: Oral LD₅₀ (rat) 292 mg/kg

Propiconazole: Oral LD₅₀ (rat) - 660 mg/Kg; Dermal LD₅₀ (rat) - > 2,000 mg/Kg; Inhalation LC₅₀ (rat) - 5.27 mg/L (4-hr)

Ethanol: Oral LD₅₀ (rat) - 7,000 mg/Kg

Disodium octaborate tetrahydrate (DOT): Oral LD₅₀ (rat) - 2000 mg/Kg

Target Organs: Eyes, skin, respiratory system.

12. Ecological Information

Environmental Fate: Wood portion will biodegrade in contact with the soil.

Environmental Toxicity: NAV

13. Disposal Considerations

Waste Disposal Method: If disposed of or discarded in its purchased form, incineration is preferable, if allowed. 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

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).

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: Ingredients in Mycostat PQ and Ferrobrite B are listed.

CERCLA: NAP

DSL: Ingredients in Mycostat PQ and Ferrobrite B are listed.

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 Prop 65:

Warning: Drilling, sawing, sanding or machining wood products generates wood dust, a substance known to the State of California to cause cancer.

Other State Information: This product is known to contain substances listed on the following State Right to Know (RTK) or Hazardous Substance Lists.

Pennsylvania – When cut or otherwise machined, the product may emit wood dust. Wood dust appears on Pennsylvania's Appendix A, Hazardous Substance List.

New Jersey – When cut or otherwise machined, the product may emit wood dust. Wood dust appears on New Jersey's list.

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: This product has been reviewed according 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	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: Controlled Product: D2A (wood dust: IARC Group 1)

16. Additional Information

Date Prepared: 09/23/2009

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Prepared By: Weyerhaeuser Company Environment, Health, Safety and Sustainability

Weyerhaeuser MSDS available on: <http://www.weyerhaeuser.com/Sustainability/MSDS>

16. Additional Information (cont'd.)

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
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