Safety Data Sheet (SDS)

Weyerhaeuser

TimberStrand® LSL

1. Identification

TRADE NAME(S):	TimberStrand® LSL
SYNONYMS and/or GRADES:	TimberStrand® LSL Beams, TimberStrand® LSL Framing, TimberStrand® LSL Headers, TimberStrand® LSL Rim Board, TimberStrand® LSL Sill Plates, TimberStrand® Wall Framing, TimberStrand® Premium Lumber, Weyerhaeuser Concrete Edge Form, Millwork, IND-38, Shear Brace Component, Weyerhaeuser LSL Edge Form
PRODUCT USES:	Building Materials
CHEMICAL NAME/CLASS:	Wood Products
MANUFACTURER'S NAME:	Weyerhaeuser
ADDRESS:	220 Occidental Ave S., Seattle, WA 98104
EMERGENCY PHONE(DOT):	(844) 523-4081 (3E Company)
BUSINESS PHONE:	(206) 539-3910
INTERNET ACCESS:	See section 16
REVISED DATE:	August 27, 2018

2. Hazard(s) Identification

Signal Word: DANGER

NOTE: This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous as the result of downstream activities (e.g. cutting, sanding) which creates small particles resulting in the potential hazards as described below.

Classification	Hazard Statement(s)	Pictogram(s)
HEALTH Carcinogen - Category 1A (H350)*	Wood dust may cause nasopharyngeal cancer and/or cancer of the nasal cavities and paranasal sinuses by inhalation	

2. Hazard(s) Identification (cont'd.)

Skin Irritation Category 2 (H315) Specific Target Organ Toxicity- Single Exposure (STOT) Category 3 (H335)	Causes skin irritation May cause respiratory irritation	
Eye Irritation Category 2B (H320)	Causes eye irritation	None
Combustible Dust (OSHA Defined Hazard)	If converted to small particles during further processing, handling, or by other means, may form combustible dust concentrations in air	None

*Hazard codes (GHS)

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

Precautionary Statement(s):

Prevention Statements:

P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from sparks, flame or other heat sources.
P243: Take precautionary measures against static discharge.
P261+284: Avoid breathing dust. In case of inadequate ventilation wear an approved respirator suitable for conditions of use.
P271: Use outdoors or in a well-ventilated area.
P280: Wear appropriate protective equipment for eye and skin exposure.

Response Statements:

P304+P340+P313: If inhaled and breathing becomes difficult, remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a doctor or other qualified medical professional.
P333+P313: If skin irritation or rash occurs get medical advice/attention.
P352+P264: If on skin wash with plenty of soap and water.
P362+P364: Take off contaminated clothing and wash before reuse.
P305+P351+P338: If in eyes, rinse cautiously for several minutes. Remove contact lenses if present and easy to do so.

Disposal:

P501: Dispose of in accordance with federal, state and local regulations.

Ingredients of Unknown Acute Toxicity (>1%): NAP

3. Composition/Information on Ingredients

Ingredient(s)	CAS#	Wt.%
Wood (wood dust, softwood or hardwood)	None	93-96
Resin solids: Polymeric Diphenylmethane Diisocyanate [1] $[C_6H_3(NCO)CH_2]$ n (reacted)	9016-87-9	3-6
Paraffin Wax[2]	8002-74-2	< 1

Common names: [1]Polymeric MDI (pMDI), [2] Hydrocarbon waxes, synthetic wax.

4. First Aid Measures

Inhalation: Remove to fresh air if respiratory symptoms are experienced. Seek medical help if persistent irritation, severe coughing, breathing difficulty or other serious symptoms occur.

Eye Contact: Treat dust in eye as a foreign object. Flush with water to remove dust particles. Remove contact lenses if present and easy to do so. Avoid touching or rubbing eyes to avoid further irritation or injury. Seek medical help if irritation persists.

Skin Contact: Wood dust may elicit contact dermatitis. Seek medical help if rash, irritation or dermatitis persists.

Skin Absorption: Not known to be absorbed through the skin.

Ingestion: Not applicable under normal use.

Symptoms or Effects:

Acute Symptoms/Effects – Dust may cause mechanical irritation of the respiratory system. Dust can cause physical obstructions in the nasal passages, resulting in dryness of nose, dry cough, and sneezing. Dust may cause mechanical irritation of the eyes.

Delayed Symptoms/Effects – Unique delayed effects are not anticipated after exposure. See Section 11 for additional information on chronic effects.

5. Fire-fighting Measures

Extinguishing Media and Restrictions: Water, carbon dioxide and sand.

Specific Hazards, Anticipated Combustion Products: Thermal decomposition (i.e. smoldering, burning) products include carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, aliphatic aldehydes, resin acids, terpenes, and polycyclic aromatic hydrocarbons.

Autoignition Temperature: Variable [typically 400°-500°F (204°-260°C)]

Special Firefighting Equipment/Procedures: No special equipment anticipated. Beware of potential combustible dust explosion hazard.

Unusual Fire and Explosion Hazards: Depending on moisture content, particle diameter and concentration, wood and resin dust may pose a flash fire or deflagration hazard. If suspended in air in an enclosure or container and ignited, an explosion may occur due to the development of internal pressure causing rupture. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the Minimum Explosible Concentration (MEC) for wood dusts. Conduct regular housekeeping inspections and cleaning to prevent excessive dust accumulations. Design and maintain control equipment to minimize fugitive combustible dust emissions. Ensure that ventilation systems are operating properly to capture, transport and contain combustible dust while controlling ignition sources. Reference NFPA 652 "Standard on the Fundamentals of Combustible Dust".

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 product dust on exposed surfaces. Use approved filtering face piece respirator ("dust mask") or higher levels of respiratory protection as indicated and goggles where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort.

7. Handling and Storage

Precautions to be taken in Handling and Storage: Product 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 dusts. Store in well-ventilated, cool, dry place away from open flame.

8. Exposure Control Measures/Personal Protection

Exposure Limits/Guidelines:

Ingredient(s)	Agency	Exposure Limit(s)	Comments
Wood (wood dust, softwood and hardwood)	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
Paraffin Wax	OSHA	PEL-TWA 2 mg/m^3	Paraffin wax fume
	ACGIH	TLV-TWA 2 mg/m^3	Paraffin wax fume
Polymeric Diphenylmethane Diisocyanate [B]	OSHA	None	
	ACGIH	None	

[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 regulated wood dust PEL's in their state plans. Additionally, OSHA indicated that it may cite employers under the OSH Act general duty clause in appropriate circumstances.

[B] This ingredient is the polymerized form of MDI resin.

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 product 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 ENGINEERING CONTROLS – Cutting and machining of product should preferably be done outdoors or with adequate ventilation and containment.

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

Personal Protective Equipment:

RESPIRATORY PROTECTION – Use filtering face piece respirator ("dust mask") tested and approved under appropriate government standards such as NIOSH (US),CSA (Canada), CEN (EU), or JIS (Japan) where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort or symptom relief. Use respiratory protection in accordance with jurisdictional regulatory requirements similar to the OSHA respiratory protection standard 29CFR 1910.134 following a determination of risk from potential exposures.

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 prevent direct contact and to minimize potential slivers or mechanical irritation from handling product.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT – Outer garments which cover the arms may be desirable in extremely dusty areas.

WORK/HYGIENE PRACTICES – Follow good hygienic and housekeeping practices. Clean up areas where product dust settles to avoid excessive accumulation of this combustible material. Minimize compressed air blowdown or other practices that generate high airborne-dust concentrations.

9. Physical/Chemical Properties

Appearance: TimberStrand® LSL products consist of layers of laminated solid wood which are glued together with a polymerized MDI resin. The product has a slightly aromatic/wood odor. The wood component consists of hardwoods.

Odor/Odor Threshold(s):	NAV
pH:	NAP
Melting/Freezing Point:	NAP
Boiling Point (@ 760 mm Hg) and Range:	NAP
Flash Point:	NAP
Evaporation Rate:	0
Flammability:	NAP
Lower/Upper Explosive Limits:	40,000 mg of dust per cubic meter of air is often used as the LEL for wood dusts.
Vapor Pressure (mm Hg):	NAP
Vapor Density (air = 1; 1 atm):	NAP
Relative Density:	NAP
Solubility:	<0.1
Partition Coefficient (n-octonal/water):	NAP
Autoignition Temperature:	Variable [typically 400°-500°F (204°-260°C)]
Decomposition Temperature:	NAV
Viscosity:	NAP
Other Properties:	NAP

10. Stability and Reactivity

Reactivity: NAP

Hazardous Polymerization: ☐ May occur ☒ Will not occur

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 and drying oils.

10. Stability and Reactivity (cont'd.)

Hazardous Decomposition or By-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.

Sensitivity to Static Discharge: Airborne wood and resin dust may be ignited by a static discharge depending on airborne concentrations, particle size and moisture content.

11. Toxicological Information

Likely Route(s) of Exposure:

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

Signs and Symptoms of Exposure:

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

Carcinogenicity Listing(s):

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

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

Components:

Wood dust (softwood or hardwood)

Dusts generated from sawing, sanding or machining the product may cause respiratory irritation, nasal dryness and irritation, coughing and sinusitis. NTP and IARC (Group 1) classify wood dust as a human carcinogen. See Section 2 above.

Target Organs: Eyes, skin, and respiratory system.

Note: Weyerhaeuser evaluated the studies referenced in the ACGIH® TLV® Documentation for Wood Dust and others which included potential allergenic references for wood species which may cause skin or respiratory sensitization. There are a limited number of studies of highly variable consistency which reference sensitization from some species of wood. When the total weight of evidence is considered this product is considered to be an eye, skin and respiratory irritant and not a respiratory or skin sensitizer according to health hazard classification criteria.

12. Ecological Information

Ecotoxicity: NAV for finished product.
Biopersistance and Degradability: The wood portion of this product would be expected to be biodegradable.
Polymeric MDI
The effects from a simulated accidental pollution event in a pond with polymeric MDI on different trophic levels of the aquatic ecosystem were investigated (Heimbach F. et.al., 1996). Neither monomeric MDI nor its potential reaction product MDA (4, 4'-diphenylmethanediamine) was detected in water or accumulated by fish. The MDI polymerized to inert polyurea on the sediment of the test ponds. This polymerization formed carbon dioxide, released as bubbles which floated to the water surface. There was no direct effect on the pelagic community (phytoplankton, zooplankton, fish, and macrophytes) of the test ponds.
Bioaccumulation: NAV
Soil Mobility: NAV
Other adverse effects: NAP

13. Disposal Considerations

Waste Disposal Method: Dry land disposal or incineration is acceptable in most areas. It is, however, the user's responsibility to determine at the time of disposal whether your waste meets any jurisdictional criteria. Note that wood and resin dust may pose a combustible dust hazard.

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) regulations. Not regulated as a hazardous material by IMDG or IATA regulations concerning the transport of hazardous materials.

UN Proper Shipping Name:	NAP
UN/NA ID Number:	NAP
Hazard Class:	NAP
Packing Group:	NAP
Environmental Hazards (Marine Pollutant):	NAP
Special Precautions:	NAP

15. Regulatory Information

TSCA: Polymeric diphenylmethane diisocyanate (MDI) is on the TSCA inventory.
CERCLA: NAP
DSL: Polymeric diphenylmethane diisocyanate (MDI) is on the Canada DSL.
OSHA: Wood products are not hazardous under the criteria of the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, dust generated by sawing, sanding or machining this product is considered hazardous.

15. Regulatory Information (cont'd.)

STATE RIGHT-TO-KNOW:
California Proposition 65 –

⚠ **WARNING**: This product can expose you to chemicals including wood dust which are known to the State of California to cause cancer, and methanol, which are known to the State of California to cause birth defects or other reproductive harm. Drilling, sawing, sanding or machining wood products can expose you to wood dust. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov and www.P65Warnings.ca.gov/wood.

Pennsylvania – When cut or otherwise machined, the product may emit wood dust. Wood dust and paraffin wax appear on Pennsylvania's Appendix A, Hazardous Substance List.
New Jersey – When cut or otherwise machined, the product may emit wood dust. Wood dust is on the New Jersey Environmental Hazardous Substance List.

SARA 313 Information: To the best of our knowledge, this product contains no chemical subjected to the SARA Title III Section 313 supplier notification requirements.
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: Wood and products made from wood are exempt from WHMIS per the Hazardous Products Act (HPA). However, wood dust released during the use or modifications of wood products may be hazardous. See Section 2 for health and combustible dust hazard information.

16. Other Information

Date Prepared: 10/20/2014
Date Revised: 08/27/2018
Prepared By: Weyerhaeuser Company Health and Safety.
Weyerhaeuser SDS available on:
http://www.wy.com/sustainability/environment/product-stewardship/safety-data-sheets/
User's Responsibility: The information contained in this 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 ensure that the most current SDS is used.

16. Other Information (cont'd.)

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
EC#	=	Identifying Number Assigned to Chemicals Contained in the European Inventory of Existing Chemical Substances (EINECS)
EC_{50}	=	Effective Concentration That Inhibits the Endpoint to 50% of Control Population
EPA	=	U.S. Environmental Protection Agency
GHS	=	Globally Harmonized System of Classification and Labelling of Chemicals
HMIS	=	(Canada) Hazardous Materials Identification System
HNOC	=	Hazards Not Otherwise Classified
IARC	=	International Agency for Research on Cancer
IATA	=	International Air Transport Association
IMDG	=	International Maritime Dangerous Goods
LC_{50}	=	Concentration in Air Resulting in Death To 50% of Experimental Animals
LCLo	=	Lowest Concentration in Air Resulting in Death
LD_{50}	=	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	=	(Canada) National Pollution Release Inventory
NTP	=	National Toxicology Program
OSHA	=	Occupational Safety and Health Administration
PEL	=	Permissible Exposure Limit
PNOR	=	Particulate Not Otherwise Regulated
PNOS	=	Particulate Not Otherwise Specified
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	=	(Canada) 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	=	(Canada) Workplace Hazardous Materials Information System

TimberStrand® LSL

Danger

Wood dust may cause nasopharyngeal cancer and/or cancer of the nasal cavities and paranasal sinuses by inhalation. May cause respiratory, skin and eye irritation.

May form combustible dust concentrations in air if small particles are formed during processing or handling.

Precautions: Do not handle until all safety precautions have been read and understood. Use outdoors or in a well-ventilated area. Avoid breathing dust and wear appropriate protective equipment for respiratory, skin or eye exposures. Prevent dust release and accumulations to minimize hazards. Take off contaminated clothing and wash before reuse. Keep dust away from ignition sources such as heat, sparks, and flame.

First Aid:

If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Contact a qualified medical professional if symptoms persist.

If on skin, wash with soap and water. If skin irritation or rash occurs, get medical advice/attention.

Inhalation, if experiencing respiratory symptoms, remove to fresh air. Contact a qualified medical professional for serious or persistent respiratory symptoms.

Weyerhaeuser

220 Occidental Ave S.

Seattle, WA 98104

1-800-525-5440

Weyerhaeuser

Label for TimberStrand® LSL products. See SDS 8/2018 for additional information.

Safety Data Sheet (SDS)

Weyerhaeuser

Parallam® PSL

1. Identification

TRADE NAME(S):	Parallam® PSL
SYNONYMS and/or GRADES:	Parallam® PSL Beams, Parallam® PSL Columns
PRODUCT USES:	Building Materials
CHEMICAL NAME/CLASS:	Wood Products
MANUFACTURER'S NAME:	Weyerhaeuser
ADDRESS:	USA - 220 Occidental Ave S., Seattle, WA 98104 CANADA - 1272 Derwent Way, Delta, BC V3M 5R1
EMERGENCY PHONE:	(844) 523-4081 (3E Company)
BUSINESS PHONE:	USA - (206) 539-3910 CANADA – (604) 526-4665
INTERNET ACCESS:	See Section 16
REVISED DATE:	March 12, 2022

Note: This SDS and attached label refer to Parallam PSL manufactured with or without surface treatment (see Section 9).

2. Hazard(s) Identification

Signal Word: DANGER

NOTE: This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous as the result of downstream activities (e.g., cutting, sanding) which creates small particles resulting in the potential hazards as described below.

Classification	Hazard Statement(s)	Pictogram(s)
HEALTH Carcinogen- Category 1A (H350) *	Wood dust may cause nasopharyngeal cancer and/or cancer of the nasal cavities and paranasal sinuses by inhalation	

2. Hazard(s) Identification (cont'd.)

Skin Irritation Category 2 (H315) Specific Target Organ Toxicity - Single Exposure (STOT) Category 3 (H335)	Causes skin irritation May cause respiratory irritation	
Eye Irritation Category 2B (H320)	Causes eye irritation	None
Combustible Dust (US-OSHA Defined Hazard; Canada WHMIS Physical Hazard Class)	If converted to finely divided solid particles during further processing, handling, or by other means, may form combustible dust concentrations in air and catch fire or explode if ignited	None

*Hazard codes (GHS)

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

Precautionary Statement(s):

Prevention Statements:

P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from sparks, flame, or other heat sources.
P243: Take precautionary measures against static discharge.
P261+284: Avoid breathing dust. In case of inadequate ventilation wear an approved respirator suitable for conditions of use.
P271: Use outdoors or in a well-ventilated area.
P280: Wear appropriate protective equipment for eye and skin exposure.

Response Statements:

P304+P340+P313: If inhaled and breathing becomes difficult, remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a doctor or other qualified medical professional.
P333+P313: If skin irritation or rash occurs get medical advice/attention.
P352+P264: If on skin wash with soap and water.
P362+P364: Take off contaminated clothing and wash before reuse.
P305+P351+P338: If in eyes, rinse cautiously for several minutes. Remove contact lenses if present and easy to do so.

Disposal:

P501: Dispose of in accordance with federal, state, and local regulations.

Ingredients of Unknown Acute Toxicity (>1%): NAP

3. Composition/Information on Ingredients

Ingredient(s)	CAS#	Wt.%
Wood (wood dust, softwood, or hardwood)	None	87-92
Resin Solids: polymeric phenol-formaldehyde[1] (reacted)	9003-35-4 for polymeric phenol-formaldehyde	4-6
Paraffin or emulsified wax[2]	8002-74-2	0.5-1
Surface treatment[3]	NA (aqueous mixtures)	<0.1

Common Names: [1]Phenol-formaldehyde (PF) resin; [2]Hydrocarbon waxes; [3]Depending on market and manufacturing location, different surface treatment may be applied in dilute form at low application rates; the chemicals in these treatments do not impact the product classification and are well below their respective wt.% cut-off values (also see Section 9)

4. First Aid Measures

Inhalation: Remove to fresh air if respiratory symptoms are experienced. Seek medical help if persistent irritation, severe coughing, breathing difficulty or other serious symptoms occur.

Eye Contact: Treat dust in eye as a foreign object. Flush with water to remove dust particles. Remove contact lenses if present and easy to do so. Avoid touching or rubbing eyes to avoid further irritation or injury. Seek medical help if irritation persists.

Skin Contact: Wood dust may elicit contact dermatitis. Seek medical help if rash, irritation, or dermatitis persists.

Skin Absorption: Not known to absorb through the skin.

Ingestion: Not applicable under normal use.

Symptoms or Effects:

Acute Symptoms/Effects – Dust may cause mechanical irritation of the eyes and respiratory system. Dust can cause physical obstructions in the nasal passages, resulting in dryness of nose, dry cough, and sneezing.

Delayed Symptoms/Effects – Unique delayed effects are not anticipated after exposure. See Section 11 for additional information on chronic effects.

5. Fire-fighting Measures

Extinguishing Media and Restrictions: Water, carbon dioxide and sand.

Specific Hazards, Anticipated Combustion Products: Thermal decomposition (i.e., smoldering, burning) products include carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, aliphatic aldehydes, including formaldehyde, resin acids, terpenes, and polycyclic aromatic hydrocarbons.

Autoignition Temperature: Variable [typically 400°-500°F (204°-260°C)]

Special Firefighting Equipment/Procedures: No special equipment anticipated. Beware of potential combustible dust explosion hazard.

Unusual Fire and Explosion Hazards: Depending on moisture content, particle diameter and concentration, wood and resin dust may pose a flash fire or deflagration hazard. If suspended in air in an enclosure or container and ignited, an explosion may occur due to the development of internal pressure causing rupture. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the Minimum Explosible Concentration (MEC) for wood dusts. Conduct regular housekeeping inspections and cleaning to prevent excessive dust accumulations. Design and maintain control equipment to minimize fugitive combustible dust emissions. Ensure that ventilation systems are operating properly to capture, transport and contain combustible dust while controlling ignition sources. Reference NFPA 652 "Standard on the Fundamentals of Combustible Dust".

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 wood and resin dust on exposed surfaces. Use approved filtering face piece respirator ("dust mask") or higher levels of respiratory protection as indicated and goggles where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort.

7. Handling and Storage

Precautions to be taken in Handling and Storage: Product 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, cool, dry place away from open flame.

8. Exposure Control Measures/Personal Protection

Exposure Limits/Guidelines:

Ingredient(s)	Agency	Exposure Limit(s)	Comments
Wood (wood dust, softwood, or hardwood)	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
Phenol-formaldehyde resin solids [B]	OSHA OSHA	PEL-TWA 0.75 ppm PEL-STEL 2 ppm	Free gaseous formaldehyde
	ACGIH ACGIH	TLV-TWA 0.1 ppm TLV-STEL 0.3 ppm	
Paraffin wax	OSHA ACGIH	PEL-TWA 2 mg/m^3 TLV-TWA 2 mg/m^3	Paraffin wax fume Paraffin wax fume

[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/m^3 PEL-TWA and 10 mg/m^3 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 regulated wood dust PEL's in their state plans. Additionally, OSHA indicated that it may cite employers under the OSH Act general duty clause in appropriate circumstances.

[B] This product may contain free formaldehyde (<0.1%, wt. %), which may be released depending on concentration and environmental conditions. These products contain no added urea-formaldehyde resins.

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 and resin dust within the system. See "SPECIAL" section below. Use of tool mounted exhaust systems should also be considered, especially when working in enclosed areas.

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

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 ENGINEERING CONTROLS – Cutting and machining of product should preferably be done outdoors or with adequate ventilation and containment.

Personal Protective Equipment:
RESPIRATORY PROTECTION – Use filtering face piece respirator ("dust mask") evaluated and approved under appropriate government standards such as NIOSH (US), CSA (Canada), CEN (EU), or JIS (Japan) where exposure limits may be exceeded or for additional worker comfort or symptom relief. Use respiratory protection in accordance with jurisdictional regulatory requirements like the OSHA respiratory protection standard 29CFR 1910.134 following a determination of risk from potential exposures.
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 prevent direct contact and to minimize potential slivers or mechanical irritation from handling product.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT – Outer garments which cover the arms may be desirable in extremely dusty areas.
WORK/HYGIENE PRACTICES – Follow good hygienic and housekeeping practices. Clean up areas where wood and resin dust settle to avoid excessive accumulation of this combustible material. Minimize compressed air blowdown or other practices that generate high airborne-dust concentrations.

9. Physical/Chemical Properties

Appearance: Parallam® PSL consists of a variety of wood species with a woody odor. Eastern manufactured product is made primarily from poplar and pine. The Parallam PSL manufactured with surface treatment is a deep golden color on the four exposed major surfaces (excludes piece ends). The Parallam PSL product made with one resin is a light wooden tan color on the exposed major surfaces. The Parallam PSL manufactured primarily for the eastern North American market contains a surface treatment; this product has a stamped product code on one of the narrow edges which includes the designation PFS 0579 at the end of each stamp. Some product manufactured primarily for the western North American market is made using Douglas fir has a different surface treatment on the four exposed major surfaces and is stamped with product code PFS 0575.

Odor/Odor Threshold(s):	NAV
pH:	NAP
Melting/Freezing Point:	NAP
Boiling Point (@ 760 mm Hg) and Range:	NAP
Flash Point:	NAP
Evaporation Rate:	NAP
Flammability:	NAV
Lower/Upper Explosive Limits:	40,000 mg of dust per cubic meter of air is used as the LEL for wood dusts.
Vapor Pressure (mm Hg):	NAP
Vapor Density (air = 1; 1 atm):	NAP
Relative Density:	NAP

9. Physical/Chemical Properties (cont'd.)

Solubility:	<0.1
Partition Coefficient (n- octanol /water):	NAP
Autoignition Temperature:	Variable [typically 400°-500°F (204°-260°C)]
Decomposition Temperature:	NAV
Viscosity:	NAP
Other Properties:	NAP

10. Stability and Reactivity

Reactivity: NAP

Hazardous Polymerization: ☐ May occur ☒ Will not occur

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 and drying oils.

Hazardous Decomposition or By-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.

Sensitivity to Static Discharge: Airborne wood and resin dust may ignite by a static discharge depending on airborne concentrations, particle size and moisture content.

11. Toxicological Information

Route(s) of Exposure:

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

Signs and Symptoms of Exposure:

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

Formaldehyde - NTP: According to its Report on Carcinogens, Fourteenth Edition, NTP states, Formaldehyde (gas) is known to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in humans and supporting data on mechanisms of carcinogenesis.

11. Toxicological Information (cont'd.)

Formaldehyde: IARC - Group 1: Carcinogenic to humans, sufficient evidence of carcinogenicity. A working group of IARC has determined that there is sufficient evidence that formaldehyde causes nasopharyngeal cancer in humans, a rare cancer in developed countries and "strong but not sufficient evidence" for leukemia. However, numerous epidemiological studies have failed to demonstrate a relationship between formaldehyde exposure and nasal cancer or pulmonary diseases such as emphysema or lung cancer.

Carcinogenicity Listing(s) (checked if applicable):

☒	NTP:	Wood dust, Known Human Carcinogen. Formaldehyde, known to be a Human Carcinogen.
☒	IARC Monographs:	Wood dust, Group 1 - carcinogenic to humans. Formaldehyde, Group 1- carcinogenic to humans.
☒	OSHA Regulated:	Formaldehyde Gas 29CFR 1910.1048

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

Components:

Wood dust (softwood or hardwood)

Dusts generated from sawing, sanding, or machining the product may cause respiratory irritation, nasal dryness, and irritation, coughing and sinusitis. NTP and IARC (Group 1) classify wood dust as a human carcinogen. See Section 2 above.

Formaldehyde

Human inhalation TC_{Lo} of 17 mg/m^3 for 30 minutes produced eye and pulmonary results; human inhalation TC_{Lo} of 300 ug/m^3 produced nose and central nervous system results; LC_{50} (rat, inhalation) = 1,000 mg/m^3, 30 minutes; LC_{50} (mice, inhalation) = 400 mg/m^3, 2 hours. NTP and IARC (Group 1) classify formaldehyde as a human carcinogen. See Section 2 above.

Target Organs: Eyes, skin, and respiratory system.

Note: Weyerhaeuser evaluated the studies referenced in the ACGIH® TLV® Documentation for Wood Dust and others which included potential allergenic references for wood species which may cause skin or respiratory sensitization. There are a limited number of studies of highly variable consistency which reference sensitization from some species of wood. When the total weight of evidence is considered, this product is an eye, skin, and respiratory irritant and not a respiratory or skin sensitizer according to health hazard classification criteria.

12. Ecological Information

Ecotoxicity: NAV for finished product.

Component: Formaldehyde

96 hr LC_{50} Fathead Minnow	24 mg/L
96 hr LC_{50} Bluegill	0.10 mg/L
5 min EC_{50} Photobacterium phosphoreum	9 mg/L
96 hr EC_{50} Water flea	20 mg/L

Biopersistance and Degradability: The wood portion of this product would be expected to be biodegradable.

Formaldehyde

Trace amounts of free formaldehyde may be released to the atmosphere and would be expected to be removed in the atmosphere by direct photolysis and oxidation by photochemically produced hydroxyl radicals (half-life of a few hours). In the aqueous phase formaldehyde biodegradation is expected to take place in a few days.

Bioaccumulation: Not expected to bioaccumulate.

Soil Mobility: NAV

Other Adverse Effects: NAP

13. Disposal Considerations

Waste Disposal Method: Dry land disposal or incineration is acceptable in most areas. It is, however, the user's responsibility to determine at the time of disposal whether your waste meets any jurisdictional criteria. Note that wood and resin dust may pose a combustible dust hazard.

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) regulations. Not regulated as a hazardous material by IMDG or IATA regulations concerning the transport of hazardous materials.

UN Proper Shipping Name:	NAP
UN/NA ID Number:	NAP
Hazard Class:	NAP
Packing Group:	NAP
Environmental Hazards (Marine Pollutant):	NAP
Special Precautions	NAP

15. Regulatory Information

TSCA: All ingredients are on the TSCA chemical substance inventory.
CERCLA: Formaldehyde (100 lbs. RQ) is on the CERCLA chemical substance inventory.
DSL: All ingredients are on the Canadian Domestic Substance List.
OSHA: Wood products are not hazardous under the criteria of the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, wood and resin dust generated by sawing, sanding, or machining this product is considered hazardous. Workplace exposure to formaldehyde is regulated under 29 CFR 1910.1048.

STATE RIGHT-TO-KNOW:
California Proposition 65 –

⚠ **WARNING**: This product can expose you to chemicals including wood dust which is known to the State of California to cause cancer, and methanol, which is known to the State of California to cause birth defects or other reproductive harm. Drilling, sawing, sanding, or machining wood products can expose you to wood dust. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov and www.P65Warnings.ca.gov/wood. These products contain formaldehyde, which depending on temperature and humidity may be emitted from the product. Formaldehyde is known to the State of California to cause cancer.

Pennsylvania – This product contains formaldehyde which, depending on temperature and humidity, may be emitted from the product. When cut or otherwise machined, the product may emit wood dust. Formaldehyde, paraffin wax, methanol and wood dust appear on Pennsylvania's Appendix A, Hazardous Substance List.

New Jersey – This product contains formaldehyde which, depending on temperature and humidity, may be emitted from the product. When cut or otherwise machined, the product may emit wood dust. Formaldehyde, methanol, and wood dust appear on New Jersey's Environmental Hazardous Substance List.

15. Regulatory Information (cont'd.)

SARA 313 Information: To the best of our knowledge, this product contains formaldehyde at de minimis concentrations (<0.1%) and is not subject to the SARA Title III Section 313 supplier notification requirements.

SARA 311/312 Hazard Category: This product has been reviewed according to 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: Wood and products made from wood are exempt from WHMIS per the Hazardous Products Act (HPA). However, wood dust released during the use or modifications of manufactured wood products may be hazardous. See Section 2 for health and combustible dust hazard information.

16. Other Information

Date Prepared: 04/20/2015
Date Revised: 03/12/2022
Prepared By: Weyerhaeuser Company Health and Safety.
Weyerhaeuser SDS available on:
https://www.weyerhaeuser.com/woodproducts/building-green-with-wood/product-stewardship-safety-data-sheets/

User's Responsibility: The information contained in this 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 ensure that the most current SDS is used.

Definition of 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
EC#	=	Identifying Number Assigned to Chemicals Contained in the European Inventory of Existing Chemical Substances (EINECS)
EC_{50}	=	Effective Concentration That Inhibits the Endpoint to 50% of Control Population
EPA	=	U.S. Environmental Protection Agency
GHS	=	Globally Harmonized System of Classification and Labelling of Chemicals
HMIS	=	(Canada) Hazardous Materials Identification System
IARC	=	International Agency for Research on Cancer
IATA	=	International Air Transport Association
IMDG	=	International Maritime Dangerous Goods
LC_{50}	=	Concentration in Air Resulting in Death To 50% of Experimental Animals
LCLo	=	Lowest Concentration in Air Resulting in Death
LD_{50}	=	Administered Dose Resulting in Death to 50% of Experimental Animals
LDLo	=	Lowest Dose Resulting in Death

16. Other Information (cont'd.)

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	=	Canada-National Pollution Release Inventory
NTP	=	National Toxicology Program
OSHA	=	Occupational Safety and Health Administration
PEL	=	Permissible Exposure Limit
PNOR	=	Particulate Not Otherwise Regulated
PNOS	=	Particulate Not Otherwise Specified
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	=	(Canada) 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	=	(Canada) Workplace Hazardous Materials Information System

Parallam® PSL

Danger

Wood dust may cause nasopharyngeal cancer and/or cancer of the nasal cavities and paranasal sinuses by inhalation. May cause respiratory, skin and eye irritation.

May form combustible dust concentrations in air if finely divided solid particles are formed during processing or handling and catch fire or explode if ignited.

Precautions: Do not handle until all safety precautions have been read and understood. Use outdoors or in a well-ventilated area. Avoid breathing dust and wear appropriate protective equipment for respiratory, skin or eye exposures. Prevent dust release and accumulations to minimize hazards. Take off contaminated clothing and wash before reuse. Keep dust away from ignition sources such as heat, sparks, and flame.

First Aid:

If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Contact a qualified medical professional if symptoms persist.

If on skin, wash with soap and water. If skin irritation or rash occurs, get medical advice/attention.

Inhalation, if experiencing respiratory symptoms, remove to fresh air. Contact a qualified medical professional for serious or persistent respiratory symptoms.

Weyerhaeuser

USA - 220 Occidental Ave S., Seattle, WA 98104

CANADA - 272 Derwent Way, Delta, BC V3M 5R1

1-800-525-5440

Weyerhaeuser

Label for Parallam® PSL products. See SDS 3/2022 for additional information.

James Hardie Building Products
231 S. LaSalle Street, Suite 2000
Chicago, IL 60604

Date of Issue: 06/01/15

SAFETY DATA SHEET

Section 1. Identification	
Product Identifier:	**HardieWrap™**
Manufacturer Name, Address and Phone Number:	James Hardie Building Products 231 S. LaSalle Street, Suite 2000 Chicago, IL 60604 1-800-942-7343 (1-800-9HARDIE)
Emergency Phone Number:	1-800-942-7343 (1-800-9HARDIE)
Recommended Use:	HardieWrap™ is used as a coated external housewrap
Restrictions on Use:	None known
Section 2. Hazards Identification	
GHS Classification:	HardieWrapTM is classified as an article under the definition in 29 CFR 1910.1200(c).
GHS Label Element(s): Symbol	N/A
Signal Word	N/A
Hazard Statement(s)	N/A
Precautionary Statement(s)	N/A
Section 3. Composition / Information on Ingredients	
Components of construction include polymer, additives, and ink. Quantities of listed compounds contained in HardieWrap™ are not reportable under the article exemption, since they do not release or otherwise result in exposure of a hazardous chemical under normal conditions of use.	
Section 4. First Aid Measures	
Inhalation	Inhalation is an unlikely route of entry. This product is not expected to result in adverse health effects.
Skin	Adverse effects from skin contact under normal conditions of handling and use are not expected.
Eyes	Eye contact may cause irritation due to mechanical abrasion. If eye contact occurs, flush with running water or saline for at least 15 minutes. Seek medical attention if redness persists or if visual changes occur.
Ingestion	Ingestion is an unlikely route of entry. This product is not expected to result in adverse health effects.
Section 5. Fire-Fighting Measures	
HardieWrap™ is neither flammable nor explosive	
Suitable extinguishing techniques:	Water spray, CO2 or dry chemical
Fire-fighting equipment:	Fire fighting personnel should wear normal protective equipment and positive self-contained breathing apparatus.

Special hazards arising from the substance or mixture:	HardieWrap™ is neither flammable nor explosive. Hazardous reactions will not occur under normal conditions. May release hazardous vapors during a fire. Fight fire with normal precautions from a reasonable distance.
Section 6. Accidental Release Measures	
Emergency procedures:	No special precautions are necessary in the event of an accidental release. Prevent material the material from entering drains or watercourses.
Protective equipment:	None required
Proper methods of containment and clean-up:	No special precautions are necessary in the event of an accidental release. Dispose of product in accordance with local, state and national regulations.
Section 7. Handling and Storage	
Precautions of safe handling and storage:	Keep away from heat and sources of ignition. Storage area should be cool, dry and well-ventilated. Keep away from incompatible materials.
Incompatibilities:	None known.
Section 8. Exposure Controls / Personal Protection	
No exposure limits have been established for this article.	
Engineering Controls:	No specific measures necessary. Good general room ventilation is expected to adequately control airborne levels.
Personal Protective Equipment:	Inhalation: Respiratory protection not normally required
	Skin: Not required under normal conditions of use
	Eyes: Safety glasses
	Body protection: Normal work wear

Section 9. Physical and Chemical Properties	
Appearance and odor: White coated fabric with green ink and no odor.	
Vapor Pressure: Not relevant	Flash Point: Not known
Specific Gravity: Not relevant	Autoignition Temperature: Not relevant
Flammability Limits: Not relevant	Volatility: Not relevant
Boiling Point: Not applicable	Solubility in water: Insoluble
Melting Point: Not applicable	Evaporation rate: Not applicable

Section 10. Stability and Reactivity	
Stability:	HardieWrap™ is stable under normal conditions of use
Conditions to Avoid:	Heat, high temperatures
Materials to Avoid:	Strong oxidizing agents, chlorinated solvents.
Hazardous Polymeriziation:	Will not occur.
Hazardous Decomposition Products:	Oxides of carbon – combustible gases
Section 11. Toxicological Information	
Routes of exposure:	HardieWrap™ is not toxic in its intact form.
Related symptoms:	None expected.

Acute and chronic effects:	• Acute toxicity – not classified • Skin corrosion / irritation – not classified • Serious eye damage / irritation – not classified • Respiratory or skin sensitization – not classified • Germ cell mutagenicity – not classified • Carcinogenity – not classified • Specific target organ toxicity – not classified

Section 12. Ecological Information
There is a very limited amount of ecological data available on the effects of releases that may occur from this product being released into the environment. Clean up of the spilled product would not be expected to leave any hazardous material that could cause a significant adverse impact. An adequate representation of these data is beyond the scope of this document.
Section 13. Disposal Considerations
Dispose in conformance with local, state and federal regulations. HardieWrap™ is not a RCRA hazardous waste.
Section 14. Transport Information
There are no special requirements for storage and transport

UN No:	None allocated
Dangerous goods class:	None allocated
Hazchem code:	None allocated
Poisons schedule:	None allocated
Packing group:	Not applicable
Label:	Not a DOT hazardous material. Local regulations may apply

Section 15. Regulatory Information
Quantities of listed compounds contained in this product are not reportable under the article exemption.
Section 16. Other Information

Prepared by Jeff Fry	**Issue Date: 06/01/15**

This form has been prepared to meet current Federal OSHA hazard communication regulations and is offered without any warranty or guarantee of any type. James Hardie Building Products cannot control the use of its products, and therefore specifically disclaims liability and responsibility arising from the use, misuse and alteration of its products.

The information contained on this MSDS was produced without independent scientific or medical studies analyzing the effects of silica upon human health. The information contained herein is based upon scientific and other data James Hardie Building Products believes is valid and reliable and provides the basis for this MSDS. The information contained herein relates only to specific materials listed in the document. Because conditions of use are beyond James Hardie Building Products control, the company makes no representation, guarantee or warranty of any kind in this MSDS, either express or implied, including the implied warranties of merchantability or fitness of the product for use for a particular purpose, and assumes no liability related to the information contained above.

James Hardie Building Products requires, as a condition of use of its products, that purchasers comply with all applicable federal, state, and local health and safety laws, regulations, orders, requirements, and strictly adhere to all instructions and warnings which accompany the product.

James Hardie Building Products
26300 La Alameda, Suite 400
Mission Viejo, CA 92691

MATERIAL SAFETY DATA SHEET

James Hardie Building Products
26300 La Alameda, Suite 400
Mission Viejo, CA 92691
Telephone (General Information and Emergency): 1-800-942-7343 (1-800-9HARDIE)

Section 1. Chemical Products and Company Identification

Product Name/Trade Names: HardiePlank® lap siding, , HardiePanel® vertical siding, HardieSoffit® panel, HardieSoffit® Beaded Porch Panel, HardieShingle® siding, HardieShingle® notched panels, HardieShingle® individual shingles, Hardie® Reveal™ Panel, 7/16" HardieTrim® boards

Note: *This MSDS applies to all Generation 6, HZ5 and HZ10 products with above stated product names.*

Other Names: Exterior Fiber-Cement (Medium Density), Fiber-cement, Fiber-reinforced cement

Use: The above products are used as external wall cladding.

Manufacturer: James Hardie Building Products, 26300 La Alameda, Suite 400, Mission Viejo, CA 92691

Effective date: January 1, 2013. Check to verify the latest version or translation availability.

NOTE: As of the date of the preparation of this document, the information contained herein is believed to be accurate.

Section 2. Hazardous Ingredients/Identity Information

Substance Name	CAS #	UN #	EINECS #	% (by weight)
Crystalline Silica (Quartz)	14808-60-7	Not a hazardous material for shipping purposes	238-878-4	30-45%
Calcium Silicate (Hydrate)	65997-15-1	Not a hazardous material for shipping purposes	266-043-4	35-65%
Calcium Carbonate	471-34-1	Not a hazardous material for shipping purposes	207-439-9	<30%
Calcium Aluminum Silicate (Hydrate)	N/A	Not a hazardous material for shipping purpose	N/A	<20%
Cellulose	9004-34-6	Not a hazardous material for shipping purposes	232-674-9	<15%
Carbon Black	1333-86-4	Not a hazardous material for shipping purposes	215-609-9	<1%

Coated products are coated with water-based acrylic paint or acrylic sealer.

Section 3. Hazards Identification

Emergency Overview: Not explosive, not a fire hazard

Primary Routes of Entry and Potential Health Effects:

Inhalation:

Acute effects - Dust may cause irritation of the nose, throat, and airways, resulting in coughing and sneezing. Certain susceptible individuals may experience wheezing (spasms of the bronchial airways) on inhaling dust during sanding or sawing operations.

Chronic Effects - Repeated and prolonged overexposures to crystalline silica can cause silicosis (scarring of the lung) and increases the risk of bronchitis, tuberculosis, lung cancer, renal disease, and scleroderma (a disease affecting the connective tissue of the skin, joints, blood vessels, and internal organs). Some studies suggest that cigarette smoking increases the risk of silicosis, bronchitis and lung cancer in persons also exposed to crystalline silica.

Acute silicosis - a sub-chronic disease associated with acute, massive silica exposure, is a rapidly progressive, incurable lung disease that is typically fatal. Symptoms include, but are not limited to, shortness of breath, cough, fever, weight loss and chest pain. Such exposure may cause pneumoconiosis and pulmonary fibrosis.

Ingestion:

Unlikely under normal conditions of use, but swallowing the dust from this product may result in -irritation or damage to the mouth and gastrointestinal tract due to alkalinity of dust.

Eye:

Dust may irritate the eyes from mechanical abrasion causing watering and redness.

Skin:

Dust may cause irritation of the skin from friction but cannot be absorbed through intact skin.

Medical conditions generally aggravated by exposure: Pulmonary function may be reduced by inhalation of respirable crystalline silica and/or cellulose. If lung scarring occurs, such scarring could aggravate other lung conditions such as asthma, emphysema, pneumonia or restrictive lung diseases. Lung scarring from crystalline silica may also increase risks to pulmonary tuberculosis.

Smoking:

Some studies suggest that cigarette smoking increases the risk of occupational respiratory diseases, including silica-related respiratory diseases.

Carcinogenicity:

California Proposition 65 Warning:

This product contains chemicals known to the State of California to cause cancer.

International Agency for the Research on Cancer (IARC):

Crystalline silica inhaled in the forms of quartz or cristobalite from occupational sources is carcinogenic to humans.

Carbon black is possibly carcinogenic to humans.

The National Toxicology Program (NTP):
NTP has concluded that respirable crystalline silica is a known human carcinogen.

LD50:
Silicon Dioxide: Rat oral >22,500 mg/kg Mouse oral>10,500 mg/kg

NFPA Ratings (Scale 0-4): health = 2, flammability = 0, reactivity = 0, personal protection = E

Section 4. First Aid Measures

Signs and symptoms of over exposure: Breathlessness, wheezing, cough, sputum production

First Aid:

Swallowed:
If swallowed, dilute by drinking large amounts of water. Do not induce vomiting. Seek medical attention. If unconscious, loosen tight clothing and lay the person on his/her left side. Give nothing by mouth to an individual who is not alert and conscious.

Eye Contact:
Remove contact lens. Flush with running water or saline for at least 15 minutes. Seek medical attention if redness persists or if visual changes occur.

Skin Contact:
Wash with mild soap and water. Contact physician if irritation persists or later develops.

Inhaled:
Remove to fresh air. If shortness of breath or wheezing develops, seek medical attention.

ADVICE TO DOCTOR: Treat symptomatically

Section 5. Fire Fighting Measures

James Hardie® fiber-cement products are neither flammable nor explosive.

Fire and Explosion Hazard:
1. Flash Point: Not applicable
2. Auto-ignition: Not applicable
3. Non-flammable and non-explosive

Extinguishing Media: This material is not combustible. Appropriate extinguishing media (carbon dioxide, foam, water, or dry chemical) for surrounding fire should be used.

Fire Fighting: Fire fighting personnel should wear normal protective equipment and positive self-contained breathing apparatus.

Section 6. Accidental Release Measures

No special precautions are necessary to pick up product that has been dropped. The following applies to spills or releases of dust generated during cutting or sanding of the material.

Precautions: Good housekeeping practices are necessary for cleaning up areas where spills or leaks have occurred. Take measures to either eliminate or minimize the creation of dust. Respirable dust and silica levels should be monitored regularly.

Wherever possible, practices likely to generate dust should be controlled with engineering controls such as local exhaust ventilation, dust suppression though containment (for example, wetting loose dust), enclosure, or covers.

Use respiratory protection as described in Section 8.

Cleanup Methods: A fine water spray should be used to suppress dust when sweeping (dry sweeping should not be attempted). Vacuuming with an industrial vacuum cleaner outfitted with a high-efficiency particulate (HEPA) filter is preferred to sweeping. Waste may be disposed of by landfill in compliance with federal, state and local requirements.

In the event of an accidental release, observe all protection measures set out in this MSDS. Avoid using materials and products that are incompatible with the product. (refer to Section 10)

Section 7. Handling and Storage

Note: The fiber cement boards in their intact state do not present a health hazard. The controls below apply to dust generated from the boards by cutting, drilling, routing, sawing, crushing, or otherwise abrading, and cleaning or moving this dust.

James Hardie's recommendation: Keep exposure to dust as low as reasonably possible. Respirable crystalline silica limits are specified by OSHA and MSHA and identified in Section 8 of this MSDS. Exposure to respirable (fine) silica dust depends on a variety of factors, including activity rate (e.g. cutting rate), method of handling (e.g. electric shears), environmental conditions (e.g. weather conditions, workstation orientation) and control measures used.

Wherever possible, practices likely to generate dust should be carried out in well ventilated areas (e.g. outside). The work practices and engineering controls set out in Section 8 should be followed to reduce silica exposures.

Keep away from reactive products. Do not store near food, beverages or smoking materials. Avoid spilling and creating dust. Maintain appropriate dust controls during handling. Use appropriate respiratory protection during handling as described in Section 8.

Section 8. Exposure Controls and Personal Protection

OSHA Permissible Exposure Standards (PEL): Exposures shall not exceed an 8-hour time weighted average (TWA) limit as stated in 29 CFR 1910.1000 Table Z-3 for mineral dusts, expressed in million particles per cubic feet (Mppcf) and/or milligrams per cubic meter (mg/m^3). The American Conference of Governmental Industrial Hygienists Threshold Limit Values (TLV are that organization's recommended exposure limits based on an 8-hour TWA.

	TLV mg/m^3	PEL Mppcf	PEL mg/m^3
Crystalline Silica (Quartz)	0.025 mg/m^3	250	10mg/m^3
(Respirable)	----	$\%SiO_2$+5	$\%SiO_2$+2
Quartz (Total Dust)	----	----	30mg/m^3 $\%SiO_2$+2
Calcium Carbonate (Total Dust)	10 mg/m^3	----	15 mg/m^3
(Respirable)	----	----	5 mg/m^3
Calcium Silicate (Total Dust)	----	----	15 mg/m^3
(Respirable)	----	----	5 mg/m^3
Nuisance Dust (Not Otherwise Specified)			
(Total Dust)	10 mg/m^3 (inhalable)	50	15 mg/m^3
(Respirable)	3 mg/m^3	15	5 mg/m^3
Cellulose (Total)	----	----	15 mg m^3
(Respirable)	----	----	5 mg/m^3
Carbon Black	3.5 mg/m^3	----	3.5 mg/m^3

Other Limits Recommended: The National Institute of Occupational Safety and Health also has a Recommended Exposure Limit (REL) of 0.05 mg/m^3 for respirable crystalline silica, based on a 10-hour time-weighted average.

Products may be coated. If coated, the coating will be water based acrylic paint or acrylic sealer.

Personal Protection: When handling products that may generate silica dust: (1) follow our best practices to limit the release of dust; (2) work outdoors whenever possible, (3) wear a NIOSH-approved dust mask or respirator (e.g., the N 95 dust mask) to further limit exposure to respirable silica dust; and (4) warn others in the area.

Respiratory: If respirators are selected, use and maintain in accordance with ANSI Standard (Z88.2) for particulate respirators. Select respirators based on the level of exposure to crystalline silica as measured by dust sampling. Use respirators that offer protection to the highest concentrations of crystalline silica if the actual concentrations are unknown. Put in place a respiratory protection and monitoring program that complies with MSHA or OSHA (e.g. 29 CFR 1910.134) standards, which include provisions for a user training program, respirator repair

and cleaning, respirator fit testing and other requirements. Comply with all other applicable federal and state laws.

Eye: When cutting material, dust resistant safety goggles/glasses should be worn and used in compliance with ANSI Standard Z87.1-1-1989 and applicable OSHA (e.g. 29 CFR 1910.133) standards.

Skin: Loose comfortable clothing should be worn. Direct skin contact with dust and debris should be avoided by wearing long sleeved shirts and long trousers, a cap or hat, and gloves. Work clothes should be washed regularly.

Engineering Controls

Cutting Outdoors

1. Position cutting station so that wind will blow dust away from user or others in working area and allow for ample dust dissipation.
2. Use one of the following methods based on the required cutting rate and jobsite conditions:

Best

- Score and snap using carbide-tipped scoring knife or utility knife
- Fiber Cement Shears (electric or pneumatic)

Better

- Dust reducing circular saw equipped with Hardieblade™ saw blade and HEPA vacuum extraction

Good *(for low to moderate cutting only)*

- Dust reducing circular saw with Hardieblade™ saw blade

Cutting Indoors

- Cut only using score and snap method or with Fiber Cement Shears (manual, electric or pneumatic).
- Position cutting station in well-ventilated area to allow for dust dissipation

Sanding/Rebating/Drilling/Other Machining

If sanding, rebating, drilling, or other machining is necessary, you should always wear a NIOSH-approved dust mask or respirator (e.g. N-95) and warn others in the immediate area.

Clean-Up

During clean-up of dust and debris, NEVER dry sweep as it may excite silica dust particles into the user's breathing area. Instead, wet debris down with a fine mist to suppress dust during sweeping, or use a HEPA vacuum to collect particles.

Important Notes:

1. For maximum protection (lowest respirable dust production), James Hardie recommends always using "Best"- level cutting methods where feasible
2. NEVER use a power saw indoors
3. NEVER use a circular saw blade that does not carry the Hardieblade™ saw blade trademark
4. NEVER dry sweep – use wet suppression methods or HEPA vacuum
5. NEVER use a grinder or continuous rim diamond blade for cutting
6. ALWAYS follow tool manufacturer's safety recommendations

Section 9. Physical and Chemical Properties

Appearance and Odor: Solid gray boards with varying dimensions according to product

Vapor Pressure: Not Relevant
Specific Gravity: Not Relevant
Flammability Limits: Not Relevant
Boiling Point: Not Relevant
Melting Points: Not Relevant
Flash Point: Not Relevant
Autoignition Temp: Not Relevant
Volatility: Not Relevant
Solubility in Water: Not Relevant
Evaporation Rate: Not applicable
NFPA Ratings (SCALE 0~4): health = 2, flammability = 0, reactivity = 0, personal protection = E

Section 10. Stability and Reactivity

Stability: Crystalline silica and limestone are stable under ordinary conditions.

Conditions to Avoid: Excessive dust generation during storage and handling.

Materials to Avoid:

Incompatibility: Hydrofluoric acid will dissolve silica and can generate silicon tetrafluoride, a corrosive gas. Contact with strong oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride or oxygen difluoride may cause fires and/or explosions. Furthermore, limestone is incompatible with acids and ammonium salts.

Section 11. Toxicological Information

The product is not toxic in its intact form. The following applies to dust that may be generated during cutting and sanding:

Chronic Effects:

Inhaled:

Repeated and prolonged overexposures to dust containing crystalline silica can cause silicosis (scarring of the lung) and increases the risk of bronchitis, tuberculosis, lung cancer, renal disease and scleroderma (a disease affecting the connective tissue of the skin, joints, blood vessels and internal organs). Some studies suggest that cigarette smoking increases the risk of silicosis, bronchitis, and lung cancer in persons also exposed to crystalline silica. Acute silicosis is a rapidly progressive, incurable lung disease that is typically fatal. Symptoms include, but are not limited to: shortness of breath, cough, fever, weight loss and chest pain. Such exposure may cause pneumoconiosis and pulmonary fibrosis.

The following relates to health effects of cellulose: Based on limited animal research, it is possible that repeated chronic inhalation exposure to cellulose fiber dust over time may lead to inflammation and scarring of the lung in humans. Precautions taken for crystalline silica dust will protect against cellulose.

Section 12. Ecological Information

There is a very limited amount of ecological data available on the effects of releases that may occur from this product being released into the environment. Clean up of the spilled product would not be expected to leave any hazardous material that could cause a significant adverse impact. There is a limited amount of ecological data available on crystalline silica, primarily because it is a naturally occurring mineral. An adequate representation of these data is beyond the scope of this document.

Section 13. Disposal Consideration

Dispose of material as inert, non-metallic mineral in conformance with local, state and federal regulations. Crystalline silica and limestone is not a RCRA hazardous waste.

Section 14. Transport Information

There are no special requirements for storage and transport.

UN No:	None Allocated
Dangerous Goods Class:	None Allocated
Hazchem Code:	None Allocated
Poisons Schedule:	None Allocated
Packing Group:	Not Applicable
Label:	Not a DOT hazardous material. Local regulations may apply

Section 15. Regulatory Information

DOT Hazard Classification: None

Placard requirement: Not a DOT hazardous material. Local placarding regulations may apply.

California Proposition 65: Warning: Airborne particles of respirable size of crystalline silica are known to the State of California to cause cancer.

CERCLA Hazardous Substance (40 CFR Part 302):

Listed Substance: No.
Unlisted Substance: No.
Reportable Quantity (RQ): None.
Characteristic(s): Not applicable.
RCRA Waste Number: Not applicable.

SARA, Title III, Sections 302/303 (40 CFR part 355 – Emergency Planning and Notification):

Extremely Hazardous Substance: No.

SARA, Title III, Section 311/312 (40 CFR Part 370 – Hazardous Chemical Reporting: Community Right-To-Know):

Acute: Yes. Chronic: Yes. Fire: No. Pressure: No. Reactivity: No.

SARA, Title III, Section 313
(40 CFR Part 372 – Toxic chemical Release Reporting: Community Right-To-Know):

Not a RCRA Hazardous Waste.

TSCA Inventory List: Yes

TSCA 8(d): No

James Hardie Building Products

26300 La Alameda, Suite 400
Mission Viejo, CA 92691

WARNING

WARNING: AVOID BREATHING SILICA DUST

James Hardie® products contain chemicals, known to the State of California to cause cancer. Respirable crystalline silica is considered by IARC and NIOSH to be a cause of cancer from some occupational sources. Breathing excessive amounts of respirable silica dust can also cause a disabling and potentially fatal lung disease called silicosis, and has been linked with other diseases. Some studies suggest smoking may increase these risks. During installation or handling: (1) work in outdoor areas with ample ventilation; (2) use fiber cement shears for cutting or, where not feasible, use a Hardieblade™ saw blade and dust-reducing circular saw attached to a HEPA vacuum; (3) warn others in the immediate area; (4) wear a properly-fitted, NIOSH-approved dust mask or respirator (e.g. N-95) in accordance with applicable government regulations and manufacturer instructions to further limit respirable silica exposures. During clean-up, use HEPA vacuums or wet cleanup methods - *never* dry sweep. For further information, refer to our installation instructions and Material Safety Data Sheet available at www.jameshardie.com or by calling 1-800-9HARDIE (1-800-942-7343). **FAILURE TO ADHERE TO OUR WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.**

James Hardie Building Products
26300 La Alameda, Suite 400
Mission Viejo, CA 92691

This form has been prepared to meet current Federal OSHA hazard communication regulations and is offered without any warranty or guarantee of any type. James Hardie Building Products cannot control the use of its products, and therefore specifically disclaims liability and responsibility arising from the use, misuse and alteration of its products.

The information contained on this MSDS was produced without independent scientific or medical studies analyzing the effects of silica upon human health. The information contained herein is based upon scientific and other data James Hardie Building Products believes is valid and reliable and provides the basis for this MSDS. The information contained herein relates only to specific materials listed in the document. It does not address the effects of silica when used in combination with other materials or substances, or when used in other processes. Because conditions of use are beyond James Hardie Building Products control, the company makes no representation, guarantee or warranty of any kind in this MSDS, either express or implied, including the implied warranties of merchantability or fitness of the product for use for a particular purpose, and assumes no liability related to the information contained above.

James Hardie Building Products requires, as a condition of use of its products, that purchasers comply with all applicable federal, state, and local health and safety laws, regulations, orders, requirements, and strictly adhere to all instructions and warnings which accompany the product.

Safety Data Sheet (SDS)

Weyerhaeuser

Microllam®Laminated Veneer Lumber (LVL) and Microllam®Laminated Veneer Lumber (LVL) with Watershed™ Stability Overlay (WSO)

1. Identification

TRADE NAME(S):	Microllam®Laminated Veneer Lumber (LVL) and Microllam®Laminated Veneer Lumber (LVL) with Watershed™ Stability Overlay (WSO)
SYNONYMS and/or GRADES:	Microllam® LVL; Microllam ®LVL with WSO; LVL beam
PRODUCT USES:	Building Materials
CHEMICAL NAME/CLASS:	Wood Products
MANUFACTURER'S NAME:	Weyerhaeuser
ADDRESS:	220 Occidental Ave S., Seattle, WA 98104
EMERGENCY PHONE (DOT):	(844) 523-4081 (3E Company)
BUSINESS PHONE:	(206) 539-3910
INTERNET ACCESS:	See section 16
REVISED DATE:	August 27, 2018

2. Hazard(s) Identification

Signal Word: DANGER

NOTE: These products are not hazardous in the form in which it is shipped by the manufacturer but may become hazardous as the result of downstream activities (e.g. cutting, sanding) which creates small particles resulting in the potential hazards as described below.

Classification	Hazard Statement(s)	Pictogram(s)
HEALTH Carcinogen-Category 1A (H350) *	Wood dust may cause nasopharyngeal cancer and/or cancer of the nasal cavities and paranasal sinuses by inhalation	

2. Hazard(s) Identification (cont'd.)

Skin Irritation Category 2 (H315) Specific Target Organ Toxicity-Single Exposure (STOT) Category 3 (H335)	Causes skin irritation May cause respiratory irritation	
Eye Irritation Category 2B (H320)	Causes eye irritation	None
Combustible Dust (OSHA Defined Hazard)	If converted to small particles during further processing, handling, or by other means, may form combustible dust concentrations in air	None

*Hazard codes (GHS)

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

Precautionary Statement(s):

Prevention Statements:

P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from sparks, flame or other heat sources.
P243: Take precautionary measures against static discharge.
P261+284: Avoid breathing dust. In case of inadequate ventilation wear an approved respirator suitable for conditions of use.
P271: Use outdoors or in a well-ventilated area.
P280: Wear appropriate protective equipment for eye and skin exposure.

Response Statements:

P304+P340+P313: If inhaled and breathing becomes difficult, remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a doctor or other qualified medical professional.
P333+P313: If skin irritation or rash occurs get medical advice/attention.
P352+P264: If on skin wash with plenty of soap and water.
P362+P364: Take off contaminated clothing and wash before reuse.
P305+P351+P338: If in eyes, rinse cautiously for several minutes. Remove contact lenses if present and easy to do so.

Disposal:

P501: Dispose of in accordance with federal, state and local regulations.

Ingredients of Unknown Acute Toxicity (>1%): NAP

3. Composition/Information on Ingredients

Ingredients	CAS#	Wt.%
Wood (wood dust, softwood or hardwood)	None	90-99
Resin Solids: Polymeric Phenol-Formaldehyde [1] (reacted)	9003-35-4	1-9
Paraffin Wax[2]	8002-74-2	0-2
Resin Coated Paper (WSO product only)	None	0.8-1.1

Common names: [1] Phenol-formaldehyde resin; PF Resin. [2] Hydrocarbon waxes, synthetic wax.

4. First Aid Measures

Inhalation: Remove to fresh air if respiratory symptoms are experienced. Seek medical help if persistent irritation, severe coughing, breathing difficulty or other serious symptoms occur.

Eye Contact: Treat dust in eye as a foreign object. Flush with water to remove dust particles. Remove contact lenses if present and easy to do so. Avoid touching or rubbing eyes to avoid further irritation or injury. Seek medical help if irritation persists.

Skin Contact: Wood dust may elicit contact dermatitis. Seek medical help if rash, irritation or dermatitis persists.

Skin Absorption: Not known to be absorbed through the skin.

Ingestion: Not applicable under normal use.

Symptoms or Effects:

Acute Symptoms/Effects – Dust may cause mechanical and/or chemical irritation of the respiratory system. Dust can cause physical obstructions in the nasal passages, resulting in dryness of nose, dry cough, and sneezing. Dust may cause mechanical irritation of the eyes.

Delayed Symptoms/Effects – Unique delayed effects are not anticipated after exposure. See Section 11 for additional information on chronic effects.

5. Fire-fighting Measures

Extinguishing Media and Restrictions: Water, carbon dioxide and sand.

Specific Hazards, Anticipated Combustion Products: Thermal decomposition (i.e. smoldering, burning) products include carbon monoxide, carbon dioxide, aliphatic aldehydes, oxides of nitrogen, hydrogen cyanide, resin acids, terpenes, and polycyclic aromatic hydrocarbons.

Autoignition Temperature: Variable [typically 400°-500°F (204°-260°C)]

Special Firefighting Equipment/Procedures: No special equipment anticipated. Beware of potential combustible dust explosion hazard.

Unusual Fire and Explosion Hazards: Depending on moisture content, particle diameter and concentration, wood and resin dust may pose a flash fire or deflagration hazard. If suspended in air in an enclosure or container and ignited, an explosion may occur due to the development of internal pressure causing rupture. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the Minimum Explosible Concentration (MEC) for wood dusts. Conduct regular housekeeping inspections and cleaning to prevent excessive dust accumulations. Design and maintain control equipment to minimize fugitive combustible dust emissions. Ensure that ventilation systems are operating properly to capture, transport and contain combustible dust while controlling ignition sources. Reference NFPA 652 "Standard on the Fundamentals of Combustible Dust".

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 wood and resin dust on exposed surfaces. Use approved filtering face piece respirator ("dust mask") or higher levels of respiratory protection as indicated and goggles where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort.

7. Handling and Storage

Precautions to be taken in Handling and Storage: Dried wood and resin 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, cool, dry place away from open flame.

8. Exposure Control Measures/Personal Protection

Exposure Limits/Guidelines:

Ingredient(s)	Agency	Exposure Limit(s)	Comments
Wood (wood dust, softwood and hardwood)	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
Resin Solids: Polymeric phenol-formaldehyde [B]	OSHA OSHA	PEL-TWA 0.75 ppm PEL-STEL 2 ppm	Free gaseous formaldehyde
	ACGIH ACGIH	TLV-TWA 0.1 ppm TLV-STEL 0.3 ppm	
Paraffin wax	OSHA ACGIH	PEL-TWA 2 mg/m^3 TLV-TWA 2 mg/m^3	Paraffin wax fume Paraffin wax fume

[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/m^3 PEL-TWA and 10 mg/m^3 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 regulated wood dust PEL's in their state plans. Additionally, OSHA indicated that it may cite employers under the OSH Act general duty clause in appropriate circumstances.

[B] These products may contain free formaldehyde (<0.1%, wt. %), which may be released depending on concentration and environmental conditions. These products contain no added urea-formaldehyde resins.

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 and resin dust within the system. See "SPECIAL" section below. Use of tool mounted exhaust systems should also be considered, especially when working in enclosed areas.

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

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 these products contains explosion relief vents or suppression systems designed and operated in accordance with applicable standards if the operating conditions justify their use.

OTHER ENGINEERING CONTROLS – Cutting and machining of product should preferably be done outdoors or with adequate ventilation & containment.

Personal Protective Equipment:

RESPIRATORY PROTECTION – Use filtering face piece respirator ("dust mask") tested and approved under appropriate government standards such as NIOSH (US),CSA (Canada), CEN (EU), or JIS (Japan) where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort or symptom relief. Use respiratory protection in accordance with jurisdictional regulatory requirements similar to the OSHA respiratory protection standard 29CFR 1910.134 following a determination of risk from potential exposures.

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 prevent direct contact and to minimize potential slivers or mechanical irritation from handling product.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT – Outer garments which cover the arms may be desirable in extremely dusty areas.

WORK/HYGIENE PRACTICES – Follow good hygienic and housekeeping practices. Clean up areas where wood and resin dust settles to avoid excessive accumulation of this combustible material. Minimize compressed air blowdown or other practices that generate high airborne-dust concentrations.

9. Physical/Chemical Properties

Appearance: Laminated product with a slightly aromatic resinous and natural wood color. The wood component of these products may consist of aspen, Douglas fir, western hemlock, southern yellow pine or yellow poplar. The Watershed Stability Overlay (WSO) product has a clear thin resin paper layer adhered to the surface.

Odor/Odor Threshold(s):	NAV
pH:	NAP
Melting/Freezing Point:	NAP
Boiling Point (@ 760 mm Hg) and Range:	NAP
Flash Point:	NAP
Evaporation Rate:	0
Flammability:	NAP
Lower/Upper Explosive Limits:	40,000 mg of dust per cubic meter of air is often used as the LEL for wood dusts.
Vapor Pressure (mm Hg):	NAP
Vapor Density (air = 1; 1 atm):	NAP
Relative Density:	NAP
Solubility:	<0.1
Partition Coefficient (n-octanol/water):	NAP
Autoignition Temperature:	Variable [typically 400°-500°F (204°-260°C)]
Decomposition Temperature:	NAV
Viscosity:	NAP
Other Properties:	NAP

10. Stability and Reactivity

Reactivity: NAP
Hazardous Polymerization: ☐ May occur ☒ will not occur
Stability: ☐ Unstable ☒ Stable
Conditions to Avoid: Avoid open flame. Products may ignite at temperatures in excess of 400°F (204°C).
Incompatibility (Materials to Avoid): Avoid contact with oxidizing agents and drying oils.
Hazardous Decomposition or By-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.
Sensitivity to Static Discharge: Airborne wood and resin dust may be ignited by a static discharge depending on airborne concentrations, particle size and moister content.

11. Toxicological Information

Likely Route(s) of Exposure:
☐ Ingestion:
☒ Skin: Dust
☒ Inhalation: Dust
☒ Eye: Dust

Signs and Symptoms of Exposure:
Wood Dust - NTP– According to its Report on Carcinogens, Fourteenth 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 case reports, cohort studies, and case-control studies that specifically addressed nasal cancer. 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 to 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.
Formaldehyde – NTP: According to its Report on Carcinogens, Fourteenth Edition, NTP states, Formaldehyde (gas) is known to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in humans and supporting data on mechanisms of carcinogenesis.
Formaldehyde: IARC - Group 1: Carcinogenic to humans, sufficient evidence of carcinogenicity. A working group of IARC has determined that there is sufficient evidence that formaldehyde causes nasopharyngeal cancer in humans, a rare cancer in developed countries and "strong but not sufficient evidence" for leukemia. However, numerous epidemiological studies have failed to demonstrate a relationship between formaldehyde exposure and nasal cancer or pulmonary diseases such as emphysema or lung cancer.

11. Toxicological Information (cont'd.)

Carcinogenicity Listing(s):

☒	NTP:	Wood dust, Known Human Carcinogen. Formaldehyde, Known to be a Human Carcinogen.
☒	IARC Monographs:	Wood dust, Group 1 - Carcinogenic to Humans. Formaldehyde, Group 1- Carcinogenic to Humans.
☒	OSHA Regulated:	Formaldehyde Gas 29CFR 1910.1048

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

Components:

Wood dust (softwood or hardwood)

Dusts generated from sawing, sanding or machining these products may cause respiratory irritation, nasal dryness and irritation, coughing and sinusitis. NTP and IARC (Group 1) classify wood dust as a human carcinogen. See Section 2 above.

Formaldehyde

Human inhalation TC_{Lo} of 17 mg/m^3 for 30 minutes produced eye and pulmonary results; human inhalation TC_{Lo} of 300 ug/m^3 produced nose and central nervous system results; LC_{50} (rat, inhalation) = 1,000 mg/m^3, 30 minutes; LC_{50} (mice, inhalation) = 400 mg/m^3, 2 hours. NTP and IARC (Group 1) classify formaldehyde as a human carcinogen. See Section 2 above.

Target Organs: Eyes, skin and respiratory system.

Note: Weyerhaeuser evaluated the studies referenced in the ACGIH® TLV® Documentation for Wood Dust and others which included potential allergenic references for wood species which may cause skin or respiratory sensitization. There are a limited number of studies of highly variable consistency which reference sensitization from some species of wood. When the total weight of evidence is considered these products are considered to be an eye, skin and repository irritant and not a respiratory or skin sensitizer according to health hazard classification criteria.

12. Ecological Information

Ecotoxicity: NAV for finished products.

Formaldehyde component:

96 hr LC_{50} Fathead Minnow	24 mg/L
96 hr LC_{50} Bluegill	0.10 mg/L
5 min EC_{50} Photobacterium phosphoreum	9 mg/L
96 hr EC_{50} Water flea	20 mg/L

Biopersistance and Degradability: The wood, wax and paper portions of these products are expected to be biodegradable.

Formaldehyde

Trace amounts of free formaldehyde may be released to the atmosphere and would be expected to be removed in the atmosphere by direct photolysis and oxidation by photochemically produced hydroxyl radicals (half-life of a few hours). In the aqueous phase formaldehyde biodegradation is expected to take place in a few days.

Bioaccumulation: NAV

Soil Mobility: NAV

Other adverse effects: NAP

13. Disposal Considerations

Waste Disposal Method: Dry land disposal or incineration is acceptable in most areas. It is, however, the user's responsibility to determine at the time of disposal whether your waste meets any jurisdictional criteria. Note that wood and resin dust may pose a combustible dust hazard.

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) regulations. Not regulated as a hazardous material by IMDG or IATA regulations concerning the transport of hazardous materials.

UN Proper Shipping Name:	NAP
UN/NA ID Number:	NAP
Hazard Class:	NAP
Packing Group:	NAP
Environmental Hazards (Marine Pollutant):	NAP
Special Precautions:	NAP

15. Regulatory Information

TSCA: Phenol-formaldehyde resin and paraffin wax are on the TSCA inventory.
CERCLA: Formaldehyde (100 lbs. RQ) is on the CERCLA chemical substance inventory.
DSL: Formaldehyde and paraffin wax are on the DSL.
OSHA: Wood products are not hazardous under the criteria of the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, wood and resin dust generated by sawing, sanding or machining these products are considered hazardous. Workplace exposure to formaldehyde is specifically regulated under 29 CFR 1910.1048.

STATE RIGHT-TO-KNOW:
California Proposition 65 –

⚠ **WARNING**: This product can expose you to chemicals including wood dust which are known to the State of California to cause cancer, and methanol, which are known to the State of California to cause birth defects or other reproductive harm. Drilling, sawing, sanding or machining wood products can expose you to wood dust. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov and www.P65Warnings.ca.gov/wood .
These products contain formaldehyde, which depending on temperature and humidity, may be emitted from the products. Formaldehyde is known to the State of California to cause cancer.

Pennsylvania – These products contain formaldehyde resin which, depending on temperature and humidity, may be emitted from the products. Formaldehyde, phenol, and methanol appear on Pennsylvania's Appendix A, Hazardous Substance Lists.
New Jersey – These products contains formaldehyde, methanol and phenol substances which appear on New Jersey's Environmental Hazardous Substance List.

15. Regulatory Information (cont'd.)

SARA 313 Information: To the best of our knowledge, these products contain formaldehyde at de minimis concentrations (<0.1%) and is not subjected to the SARA Title III Section 313 supplier notification requirements.

SARA 311/312 Hazard Category: These products have 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

WHMIS Classification: Wood and products made from wood are exempt from WHMIS per the Hazardous Products Act (HPA). However, wood dust released during the use or modifications of wood products may be hazardous. See Section 2 for health and combustible dust hazard information.

16. Other Information

Date Prepared: 06/10/2015
Date Revised: 08/27/2018
Prepared By: Weyerhaeuser Company Health and Safety.
Weyerhaeuser SDS available on:
http://www.wy.com/sustainability/environment/product-stewardship/safety-data-sheets/

User's Responsibility: The information contained in this 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 ensure that the most current SDS is used.

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
EC#	=	Identifying Number Assigned to Chemicals Contained in the European Inventory of Existing Chemical Substances (EINECS)
EC_{50}	=	Effective Concentration That Inhibits the Endpoint to 50% of Control Population
EPA	=	U.S. Environmental Protection Agency
GHS	=	Globally Harmonized System of Classification and Labelling of Chemicals
HMIS	=	(Canada)Hazardous Materials Identification System
HNOC	=	Hazards Not Otherwise Classified
IARC	=	International Agency for Research on Cancer
IATA	=	International Air Transport Association
IMDG	=	International Maritime Dangerous Goods
LC_{50}	=	Concentration in Air Resulting in Death To 50% of Experimental Animals
LCLo	=	Lowest Concentration in Air Resulting in Death
LD_{50}	=	Administered Dose Resulting in Death to 50% of Experimental Animals
LDLo	=	Lowest Dose Resulting in Death
LEL	=	Lower Explosive Limit

16. Other Information (cont'd.)

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	=	(Canada) National Pollution Release Inventory
NTP	=	National Toxicology Program
OSHA	=	Occupational Safety and Health Administration
PEL	=	Permissible Exposure Limit
PNOR	=	Particulate Not Otherwise Regulated
PNOS	=	Particulate Not Otherwise Specified
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	=	(Canada)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	=	(Canada)Workplace Hazardous Materials Information System

Microllam®Laminated Veneer Lumber (LVL) and Microllam®Laminated Veneer Lumber (LVL) with Watershed™ Stability Overlay (WSO)

Danger

Wood dust may cause nasopharyngeal cancer and/or cancer of the nasal cavities and paranasal sinuses by inhalation. May cause respiratory, skin and eye irritation.

May form combustible dust concentrations in air if small particles are formed during processing or handling

Precautions: Do not handle until all safety precautions have been read and understood. Use outdoors or in a well-ventilated area. Avoid breathing dust and wear appropriate protective equipment for respiratory, skin or eye exposures. Prevent dust release and accumulations to minimize hazards. Take off contaminated clothing and wash before reuse. Keep dust away from ignition sources such as heat, sparks, and flame.

First Aid:

If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Contact a qualified medical professional if symptoms persist.

If on skin, wash with soap and water. If skin irritation or rash occurs, get medical advice/attention.

Inhalation, if experiencing respiratory symptoms, remove to fresh air. Contact a qualified medical professional for serious or persistent respiratory symptoms.

Weyerhaeuser

220 Occidental Ave S.

Seattle, WA 98104

1-800-525-5440

Weyerhaeuser

Label for Microllam® LVL and Microllam® LVL with WSO™ products. See SDS 8/2018 for additional information.

Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name
- **LPSmartSide Precision Series Products (SmartSide Prefinished Siding & Trim, SmartSide Primed Siding & Trim, SmartSide Precision Panel with SmartFinish, SmartSide Precision Panel with SilverTech)**

Product Description
- Composite wood panels in nominal thicknesses and in various lengths and widths, and with various finishes and overlays.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s)
- Exterior cladding; structural wall and roof component;

1.3 Details of the supplier of the safety data sheet

Manufacturer
- Louisiana-Pacific Corporation
  414 Union Street, Suite 2000
  Nashville, TN 37219
  United States
  www.lpcorp.com

Telephone (General)
- 877-744-5600

1.4 Emergency telephone number

Manufacturer
- 615-986-5600

Section 2: Hazards Identification

EU/EEC
According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]
According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous by downstream activities (e.g., cutting, sanding, milling) that reduce its particle size. Those hazards are described below.

CLP
- Skin Sensitization 1 - H317
  Respiratory Sensitization 1 - H334
  Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
  Carcinogenicity 1A - H350

DSD/DPD
- Irritant (Xi)
  Harmful (Xn)
  Carcinogenic Substances - Category 1

R37, R42/43, R45

2.2 Label Elements

CLP

DANGER

Hazard statements

- H317 - May cause an allergic skin reaction
  H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
  H335 - May cause respiratory irritation
  H350 - May cause cancer.

Precautionary statements

Prevention

- P201 - Obtain special instructions before use.
  P202 - Do not handle until all safety precautions have been read and understood.
  P261 - Avoid breathing dust.
  P271 - Use only outdoors or in a well-ventilated area.
  P280 - Wear protective gloves/protective clothing/eye protection/face protection.
  P281 - Use personal protective equipment as required.
  P285 - In case of inadequate ventilation wear respiratory protection.

Response

- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
  P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
  P321 - Specific treatment, see supplemental first aid information.
  P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
  P363 - Wash contaminated clothing before reuse.
  P308+P313 - IF exposed or concerned: Get medical advice/attention.

Storage/Disposal

- P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD

Risk phrases

- R37 - Irritating to respiratory system.
  R42/43 - May cause sensitisation by inhalation and skin contact.
  R45 - May cause cancer.

Safety phrases

- S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
  S53 - Avoid exposure - obtain special instructions before use.

2.3 Other Hazards

CLP

- May form combustible dust concentrations in air.
  According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD

- May form combustible dust concentrations in air.

According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)
According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous by downstream activities (e.g., cutting, sanding, milling) that reduce its particle size. Those hazards are described below.

OSHA HCS 2012

- Skin Sensitization 1
  Respiratory Sensitization 1
  Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
  Carcinogenicity 1A
  Combustible Dust

2.2 Label elements

OSHA HCS 2012

DANGER

Hazard statements

- May cause an allergic skin reaction
  May cause allergy or asthma symptoms or breathing difficulties if inhaled
  May cause respiratory irritation
  May cause cancer.
  May form combustible dust concentrations in air.

Precautionary statements

Prevention

- Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  Avoid breathing dust.
  Use only outdoors or in a well-ventilated area.
  Wear protective gloves/protective clothing/eye protection/face protection.
  In case of inadequate ventilation wear respiratory protection.

Response

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
  Call a POISON CENTER or doctor/physician if you feel unwell.
  If on skin: Wash with plenty of water.
  Specific treatment, see supplemental first aid information.
  If skin irritation or rash occurs: Get medical advice/attention.
  Wash contaminated clothing before reuse.
  IF exposed or concerned: Get medical advice/attention.

Storage/Disposal

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Not applicable.

Canada
According to: WHMIS

2.1 Classification of the substance or mixture

This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous by downstream activities (e.g., cutting, sanding, milling) that reduce its particle size. Those hazards are described below.

WHMIS
- Other Toxic Effects - D2A
  Other Toxic Effects - D2B

2.2 Label elements

WHMIS

- Other Toxic Effects - D2A
  Other Toxic Effects - D2B

2.3 Other hazards

WHMIS
- May form combustible dust concentrations in air.
  In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

- This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous by downstream activities (e.g., cutting, sanding, milling) that reduce its particle size. Those hazards are described above.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition			
Chemical Name	Identifiers	%	Classifications According to Regulation/Directive
Wood Strands	NDA	80% TO 95%	**EU DSD/DPD:** Xi, R37; Xn, R42/43; Carc 1, R45 **EU CLP:** Self Classified: Skin Sens 1, H317; Resp Sens 1, H334; STOT SE 3, H335; Carc 1A, H350 **OSHA HCS 2012:** Skin Sens 1, Resp Sens 1, STOT SE 3 (Resp Irrit), Carc 1A, Comb Dust
Polyurea/Polyurethane Solids[1]	NDA	< 10%	**EU DSD/DPD:** Not relevant **EU CLP:** Not relevant **OSHA HCS 2012:** Not relevant
Resin Saturated Paper	NDA	< 5%	**EU DSD/DPD:** Not relevant **EU CLP:** Not relevant **OSHA HCS 2012:** Not relevant

Laminated Paper/Foil[2]	NDA	< 5%	**EU DSD/DPD:** Not Relevant **EU CLP:** Not Relevant **OSHA HCS 2012:** Not Relevant
Zinc Borate Hydrate	**CAS:**138265-88-0	< 2%	**EU DSD/DPD:** Exposure limits **EU CLP:** Exposure limits **OSHA HCS 2012:** Exposure limits
Tallow Wax[3]	**CAS:**8030-12-4	< 2%	**EU DSD/DPD:** Not relevant **EU CLP:** Not relevant **OSHA HCS 2012:** Not relevant
Paraffin Wax[3]	**CAS:**8002-74-2 **EC Number:**232-315-6	< 2%	**EU DSD/DPD:** Exposure limits **EU CLP:** Not relevant **OSHA HCS 2012:** Exposure limits
Palm Wax[3]	**CAS:**68514-74-9	< 2%	**EU DSD/DPD:** Not relevant **EU CLP:** Not relevant **OSHA HCS 2012:** Not relevant
Top Coat	NDA	< 1%	**EU DSD/DPD:** Not relevant **EU CLP:** Not relevant **OSHA HCS 2012:** Not relevant
Base coat	NDA	< 1%	**EU DSD/DPD:** Not relevant **EU CLP:** Not relevant **OSHA HCS 2012:** Not relevant
Edge Coat	NDA	N/A	**EU DSD/DPD:** Not relevant **EU CLP:** Not relevant **OSHA HCS 2012:** Not relevant

[1] This ingredient is a cured, inert and polymerized form of polymeric diphenylmethane diisocyanate (pMDI) adhesive. All pMDI has been reacted during the curing process to form polyurea/polyurethane solids.
[2] This material will only be present in the SmartFinish or SilverTech versions of this product.
[3] One of the waxes listed above was used in the manufacturing process.

Key to abbreviations
NDA = No Data Available

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation
- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin
- In case of contact with substance, wash with plenty of soap and water. If irritation develops and persists, get medical attention.

Eye
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media
- Water, Dry Chemical, Sand and CO2.

Unsuitable Extinguishing Media
- None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards
- Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Hazardous Combustion Products
- No data available

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).
  Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions
- Use appropriate Personal Protective Equipment (PPE) Do not breathe dust. Avoid generating dust. Avoid contact with skin, eyes or clothing.

Emergency Procedures
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid activities that cause wood dust to become airborne.

6.2 Environmental precautions

- No special environmental precautions necessary.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures
- Avoid generating dust.
  Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
  Sweep up carefully to avoid generating airborne dust or use a vacuum rated for use with combustible dust.
  Place recovered wood dust in a container for proper disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling
- Minimize dust generation and accumulation. Do not use in areas without adequate ventilation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Provide adequate precautions, such as electrical grounding and bonding. Keep away from heat and ignition sources – No Smoking. Do not breathe dust. Do not eat, drink or smoke when using this product. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Avoid prolonged and repeated contact with the skin.

7.2 Conditions for safe storage, including any incompatibilities

Storage • Store in a dry, well-ventilated place.

7.3 Specific end use(s)

• Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	**ACGIH**	**Australia**	**Canada Alberta**	**Canada British Columbia**	**Canada Manitoba**
Paraffin Wax (8002-74-2)	TWAs	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)
Zinc Borate Hydrate as Particulates not otherwise classified (PNOC)	TWAs	10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles, recommended) *as Particulates not otherwise classified (PNOC)*	Not established	10 mg/m3 TWA (total); 3 mg/m3 TWA (respirable) *as Particulates not otherwise classified (PNOC)*	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction) *as Particulates not otherwise classified (PNOC)*	10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles, recommended) *as Particulates not otherwise classified (PNOC)*
Wood Strands	TWAs	10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles, recommended) *as Particulates not otherwise classified (PNOC)* 0.5 mg/m3 TWA (inhalable fraction) *as Wood dust, western red cedar* 1 mg/m3 TWA (inhalable fraction) *as Wood dusts (all other wood dusts)*	Not established	10 mg/m3 TWA (total); 3 mg/m3 TWA (respirable) *as Particulates not otherwise classified (PNOC)* 5 mg/m3 TWA (total) *as Wood dust, all soft and hard woods* 0.5 mg/m3 TWA (total) *as Wood dust, western red cedar*	10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction) *as Particulates not otherwise classified (PNOC)*	10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles, recommended) *as Particulates not otherwise classified (PNOC)* 0.5 mg/m3 TWA (inhalable fraction) *as Wood dust, western red cedar* 1 mg/m3 TWA (inhalable fraction) *as Wood dusts (all other wood dusts)*

Exposure Limits/Guidelines (Con't.)						
	Result	**Canada New Brunswick**	**Canada Northwest Territories**	**Canada Nova Scotia**	**Canada Nunavut**	**Canada Ontario**
Paraffin Wax (8002-74-2)	TWAs	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)
	STELs	Not established	6 mg/m3 STEL (fume)	Not established	6 mg/m3 STEL (fume)	Not established
Zinc Borate Hydrate as Particulates not otherwise classified (PNOC)	TWAs	3 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction);	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass) *as Particulates not*	10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles, recommended)	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass) *as Particulates not*	10 mg/m3 TWA (Inhalable); 3 mg/m3 TWA (respirable) *as Particulates not otherwise classified*

		10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, inhalable fraction) *as Particulates not otherwise classified (PNOC)*	*otherwise classified (PNOC)*	*as Particulates not otherwise classified (PNOC)*	*otherwise classified (PNOC)*	*(PNOC)*
Wood Strands	TWAs	3 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction); 10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, inhalable fraction) *as Particulates not otherwise classified (PNOC)*	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass) *as Particulates not otherwise classified (PNOC)* 5 mg/m3 TWA *as Wood dust, all soft and hard woods*	10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles, recommended) *as Particulates not otherwise classified (PNOC)* 0.5 mg/m3 TWA (inhalable fraction) *as Wood dust, western red cedar* 1 mg/m3 TWA (inhalable fraction) *as Wood dusts (all other wood dusts)*	5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass) *as Particulates not otherwise classified (PNOC)* 5 mg/m3 TWA *as Wood dust, all soft and hard woods*	10 mg/m3 TWA (inhalable); 3 mg/m3 TWA (respirable) *as Particulates not otherwise classified (PNOC)*
	STELs	Not established	10 mg/m3 STEL *as Wood dust, all soft and hard woods*	Not established	10 mg/m3 STEL *as Wood dust, all soft and hard woods*	Not established

Exposure Limits/Guidelines (Con't.)

	Result	Canada Quebec	Canada Saskatchewan	Canada Yukon	Mexico	New Zealand
Paraffin Wax (8002-74-2)	STELs	Not established	4 mg/m3 STEL	6 mg/m3 STEL (fume)	6 mg/m3 STEL [LMPE-CT] (fume)	Not established
	TWAs	2 mg/m3 TWAEV (fume)	2 mg/m3 TWA	2 mg/m3 TWA (fume)	2 mg/m3 TWA LMPE-PPT (fume)	2 mg/m3 TWA (fume)
Zinc Borate Hydrate as Particulates not otherwise classified (PNOC)	TWAs	10 mg/m3 TWAEV (including dust, inert or nuisance particulates; containing no Asbestos and <1% Crystalline silica, total dust) *as Particulates not otherwise classified (PNOC)*	10 mg/m3 TWA (insoluble or poorly soluble, inhalable fraction); 3 mg/m3 TWA (insoluble or poorly soluble, respirable fraction) *as Particulates not otherwise classified (PNOC)*	Not established	Not established	3 mg/m3 TWA (respirable dust); 10 mg/m3 TWA (inhalable dust) *as Particulates not otherwise classified (PNOC)*
	STELs	Not established	20 mg/m3 STEL (insoluble or poorly soluble, inhalable fraction); 6 mg/m3 STEL (insoluble or poorly soluble, respirable fraction) *as Particulates not otherwise classified (PNOC)*	Not established	Not established	Not established

Wood Strands	TWAs	10 mg/m3 TWAEV (including dust, inert or nuisance particulates; containing no Asbestos and <1% Crystalline silica, total dust) *as Particulates not otherwise classified (PNOC)* 5 mg/m3 TWAEV (except red cedar, containing no Asbestos and <1% Crystalline silica, total dust) *as Wood dust, all soft and hard woods* 2.5 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust) *as Wood dust, western red cedar*	10 mg/m3 TWA (insoluble or poorly soluble, inhalable fraction); 3 mg/m3 TWA (insoluble or poorly soluble, respirable fraction) *as Particulates not otherwise classified (PNOC)*	5 mg/m3 TWA (non-allergenic); 2.5 mg/m3 TWA (allergenic, including cedar, mahogany, teak) *as Wood dust, all soft and hard woods*	Not established	3 mg/m3 TWA (respirable dust); 10 mg/m3 TWA (inhalable dust) *as Particulates not otherwise classified (PNOC)*
	STELs	Not established	20 mg/m3 STEL (insoluble or poorly soluble, inhalable fraction); 6 mg/m3 STEL (insoluble or poorly soluble, respirable fraction) *as Particulates not otherwise classified (PNOC)*	10 mg/m3 STEL (non-allergenic); 5 mg/m3 STEL (allergenic, including cedar, mahogany, teak) *as Wood dust, all soft and hard woods*	Not established	Not established

Exposure Limits/Guidelines (Con't.)

	Result	NIOSH	OSHA	Russia
Paraffin Wax (8002-74-2)	TWAs	2 mg/m3 TWA (fume)	Not established	Not established
Zinc Borate Hydrate	TWAs	Not established	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction) *as Particulates not otherwise classified (PNOC)*	Not established
Wood Strands	TWAs	1 mg/m3 TWA *as Wood dust, all soft and hard woods*	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction) *as Particulates not otherwise classified (PNOC)*	6 mg/m3 TWA (containing <2% Silicon dioxide, aerosol, listed under Animal and plant origin dust) *as Wood dust, all soft and hard woods*

Exposure Control Notations

Russia

•Wood as Wood dust, all soft and hard woods: **Sensitizers:** (Allergenic substance (listed under Animal and plant dust))

ACGIH

•Wood as Wood dust, western red cedar: **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
•Wood as Wood dusts (all other wood dusts): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Exposure Limits Supplemental
ACGIH
•Paraffin Wax (8002-74-2): **TLV Basis - Critical Effects:** (nausea (fume); upper respiratory tract irritation (fume))
•Wood as Wood dust, western red cedar: **TLV Basis - Critical Effects:** (asthma)
•Wood as Wood dusts (all other wood dusts): **TLV Basis - Critical Effects:** (pulmonary function)

8.2 Exposure controls

Engineering Measures/Controls
- Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is not leakage from the equipment).

Personal Protective Equipment

Respiratory
- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face
- Wear safety goggles.

Hands
- Wear appropriate gloves.

Skin/Body
- Wear long sleeves and/or protective coveralls.

General Industrial Hygiene Considerations
- Wash hands before eating. Ensure adequate ventilation during use.

Environmental Exposure Controls
- Follow best practice for site management and disposal of waste.

Key to abbreviations
ACGIH = American Conference of Governmental Industrial Hygiene
LMPE = Maximum permissible exposure limit (Spanish)
MSHA = Mine Safety and Health Administration
NIOSH = National Institute of Occupational Safety and Health
OSHA = Occupational Safety and Health Administration
STEL = Short Term Exposure Limits are based on 15-minute exposures
STOT = Specific Target Organ Toxicity
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Solid wood product.
Color	Varies	Odor	Typical wood odor.
Odor Threshold	Not Applicable		
General Properties			
Boiling Point	Not Applicable	Melting Point	Not Applicable
Decomposition Temperature	Not Applicable	pH	Not Applicable
Specific Gravity/Relative Density	0.56 to 0.71	Density	35 to 44 lb(s)/ft³
Water Solubility	Not Applicable	Viscosity	Not Applicable
Explosive Properties	Data lacking	Oxidizing Properties:	Data lacking
Volatility			
Vapor Pressure	Not Applicable	Vapor Density	Not Applicable
Evaporation Rate			

	Not Applicable		
Flammability			
Flash Point	Not Applicable	UEL	Not Applicable
LEL	Not Applicable	Autoignition	200 to 260 C(392 to 500 F)
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Accumulation of dusts - mixtures of wood dust and air may be explosive when ignited. Ignition sources, heat.

10.5 Incompatible materials

- No data available

10.6 Hazardous decomposition products

- No data available

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous by downstream activities (e.g., cutting, sanding, milling) that reduce its particle size. Those hazards are described below.

GHS Properties	Classification
Acute toxicity	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
Aspiration Hazard	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
Carcinogenicity	EU/CLP•Carcinogenicity 1A OSHA HCS 2012•Carcinogenicity 1A
Germ Cell Mutagenicity	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
Skin corrosion/Irritation	EU/CLP•Data lacking OSHA HCS 2012•Data lacking

Skin sensitization	EU/CLP•Skin Sensitizer 1 OSHA HCS 2012•Skin Sensitizer 1
STOT-RE	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
STOT-SE	EU/CLP•Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012•Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Toxicity for Reproduction	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
Respiratory sensitization	EU/CLP•Respiratory Sensitizer 1 OSHA HCS 2012•Respiratory Sensitizer 1
Serious eye damage/Irritation	EU/CLP•Data lacking OSHA HCS 2012•Data lacking

Medical Conditions Aggravated by Exposure
- Disorders of the lungs.

Potential Health Effects

Inhalation

Acute (Immediate)
- Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible. Wood dust (generated from sawing, sanding or machining the product) may cause nasal dryness, irritation, coughing and sinusitis.

Chronic (Delayed)
- Prolonged exposure to the dust may cause wheezing, chest tightness, productive cough, nasal irritation and symptoms of chronic respiratory disease. Wood dust, depending on the species, may cause respiratory sensitization with prolonged, repetitive contact or exposure to elevated dust levels.

Skin

Acute (Immediate)
- Exposure to dust may cause mechanical irritation. May cause skin sensitization. Symptoms include redness and skin rash.

Chronic (Delayed)
- No data available.

Eye

Acute (Immediate)
- Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

Chronic (Delayed)
- No data available.

Ingestion

Acute (Immediate)
- Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

Chronic (Delayed)
- No data available

Carcinogenic Effects
- According to its Twelfth Report on Carcinogens the National Toxicology Program states, "many case reports and epidemiological studies (including cohort studies and case-control studies that specifically addressed nasal cancer) have found a strong association between exposure to wood dust and cancer of the nasal cavity. Strong and consistent associations with cancer of the nasal cavity and paranasal sinuses were observed both in studies of people whose occupations were associated with wood-dust exposure and in studies that directly estimated wood dust exposure."

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not regulated	NDA	NDA	NDA
TDG	NDA	Not regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • Not applicable.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Chronic

State Right To Know				
Component	CAS	MA	NJ	PA
Zinc Borate Hydrate	138265-88-0	No	No	No
Palm Wax	68514-74-9	No	No	No

Paraffin Wax	8002-74-2	Yes	Yes	Yes
Tallow Wax	8030-12-4	No	No	No
Wood	NDA	No	Yes	No

Inventory						
Component	CAS	Australia AICS	Canada DSL	EU EINECS	New Zealand	TSCA
Zinc Borate Hydrate	138265-88-0	No	No	No	Yes	No
Palm Wax	68514-74-9	Yes	Yes	Yes	Yes	Yes
Paraffin Wax	8002-74-2	Yes	Yes	Yes	Yes	Yes
Tallow Wax	8030-12-4	Yes	Yes	Yes	Yes	Yes
Wood	NDA	Yes	Yes	Yes	Yes	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Australia - High Volume Industrial Chemicals List

•Paraffin Wax	8002-74-2	
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Australia - List of Designated Hazardous Substances - Classification

•Paraffin Wax	8002-74-2	Self classification required (fume)
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Repr.Cat.2 R60, R61
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Australia - Work Health and Safety Regulations - Threshold Quantity at Major Hazard Facilities (Table 15.1)

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Australia - South Australia - Hazardous Substances Prohibited for Specified Uses

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Australia - South Australia - Hazardous Substances Requiring Health Surveillance

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Australia - Tasmania - Workplace Health and Safety - Hazardous Substances Prohibited for Specific Uses

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed

•Palm Wax	68514-74-9	Not Listed

Australia - Tasmania - Workplace Health and Safety - Hazardous Substances Requiring Health Surveillance

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Australia - Western Australia - Hazardous Substances Prohibited for Specified Uses

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Australia - Western Australia - Hazardous Substances Requiring Health Surveillance

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Environment

Australia - National Pollutant Inventory (NPI) Substance List

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Australia - Priority Existing Chemical Program

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

•Paraffin Wax	8002-74-2	Uncontrolled product according to WHMIS classification criteria
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Canada - WHMIS - Ingredient Disclosure List

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Environment

Canada - CEPA - Priority Substances List

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Canada Alberta

Environment

Canada - Alberta - Ambient Air Quality Objectives

•Paraffin Wax	8002-74-2	Not Listed

•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Canada Saskatchewan

Environment

Canada - Saskatchewan - Dangerous Goods - Industrial Hazardous Substances

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Other

Canada - Substances Regulated Under F&DA That Were In Commerce Between 1/1/84 and 12/31/86

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Russia

Labor

Russia - Limiting Quantities of Hazardous Substances

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed

•Palm Wax	68514-74-9	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

•Paraffin Wax	8002-74-2	Not Listed

•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		carcinogen, initial date 12/18/09
•Palm Wax	68514-74-9	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

•Paraffin Wax	8002-74-2	Not Listed
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Not Listed
•Palm Wax	68514-74-9	Not Listed

United States - Rhode Island

Labor

U.S. - Rhode Island - Hazardous Substance List

•Paraffin Wax	8002-74-2	Toxic (fume)
•Tallow Wax	8030-12-4	Not Listed
•Zinc Borate Hydrate	138265-88-0	Not Listed
•Wood as Wood dust, all soft and hard woods		Toxic
•Palm Wax	68514-74-9	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date
- 05/May/2015

Preparation Date
- 21/May/2012

Disclaimer/Statement of Liability
- This SDS is intended solely for safety education and not for use as specifications or warranties. The information in this SDS was obtained from usually reliable sources and is provided without any representation for warranties regarding the accuracy or correctness. Since the handling, use, and storage is beyond our control, LP assumes no responsibility and disclaims liability for any loss, damage, or expense arising therefrom.

Key to abbreviations

NDA = No Data Available

LPSmartSide Precision Series Products (SmartSide Prefinished Siding Trim, SmartSide Primed Siding & Trim, SmartSide Precision Panel with SmartFinish, SmartSide Precision Panel with SilverTech)

Danger

H350 May cause cancer.
EUH019 May form explosive peroxides.
H317 May cause an allergic skin reaction
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 May cause respiratory irritation

Precaution:
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P308+P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust, fume, gas, mist, vapours and/or spray.
P271 Use only outdoors or in a well-ventilated area.
P285 In case of inadequate ventilation wear respiratory protection.
P311 Call a POISON CENTER or doctor/physician.
P320 Specific treatment is urgent, see supplemental first aid information.
P363 Wash contaminated clothing before reuse.
P302+P350 IF ON SKIN: Gently wash with plenty of soap and water.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P501 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.;

(Material) Safety Data Sheet

Section 1 - Product and Company Identification

Material Name ▪ **Prefinished Exterior Hardboard Lap Siding**

Product Description ▪ 3/8" or 7/16" hardboard substrate with baked on coatings. 12 ft. strips in widths of 6", 9", and 12".

Manufacturer ▪ Louisiana-Pacific
2005 Hwy #3
East River, Nova Scotia B0J1J0
Canada

Telephone
General ▪ 888-644-8606

Preparation Date ▪ 07/12/2011
Last Revision Date ▪ 07/12/2011

Section 2 - Hazards Identification

Emergency Overview

Prevention Do not breathe dust, fume, gas, mist, vapours and/or spray.

Storage/Disposal Dispose of content and/or container in accordance with local,regional, national, and/or international regulations.

Particles may be irritating to skin, eyes, and respiratory tract. Inhalation of respirable dusts may cause lung injury or disease.

Physical Form ▪ Solid
Odor ▪ Slight to none.
OSHA ▪ None
WHMIS ▪ None
EU ▪ None
GHS ▪ None
Route Of Entry ▪ Inhalation, Skin, Eye
Target Organs ▪ Lungs

NFPA:

Potential Health Effects

Inhalation

Acute (Immediate)
- Under normal conditions of use, no health effects are expected. Exposure to dust may cause irritation. Some woods can cause respiratory sensitization resulting in asthma.

Chronic (Delayed)
- Repeated or prolonged exposure to wood dust may cause cancer.

Skin

Acute (Immediate)
- Under normal conditions of use, no health effects are expected. Exposure to dust may cause irritation. Some woods may cause skin sensitization resulting in a skin rash.

Chronic (Delayed)
- No data available.

Eye

Acute (Immediate)
- Under normal conditions of use, no health effects are expected. Exposure to dust may cause irritation.

Chronic (Delayed)
- No data available.

Ingestion

Acute (Immediate)
- Ingestion of wood dusts is unlikely. If ingestion does occur, slight gastrointestinal irritation may result. Certain species of wood and thier dusts may contain natural toxins, which can have adverse effects on humans.

Chronic (Delayed)
- No data available.

Carcinogenic Effects
- Prolonged exposure to wood dust by inhalation has been reported to be associated with nasal and paranasal cancer. Wood dust is classified as a carcinogen by ACGIH, NIOSH, and IARC. This classification is based on an increased incidence of nasal and paranasal cancer in people exposed to wood dusts. Residual formaldehyde gas may be release from this product. Formaldehyde gas is irritating to the eyes and upper respiratory tract and may aggravate exisiting respiratory conditions or allergies. OSHA has listed formaldehyde as a potential human carcinogen.

Carcinogenic Effects				
	CAS	IARC	NTP	OSHA
Formaldehyde	50-00-0	Group 1-Carcinogenic	Reasonably Anticipated to be Human Carcinogen	Specifically Regulated Carcinogen
Wood as Wood dust, all soft and hard woods	NDA	Group 1-Carcinogenic	Known Human Carcinogen	Not established

Section 3 - Composition/Information on Ingredients

Hazardous Components						
Chemical Name	**CAS**	**%(weight)**	**UN;EINECS**	**LD50/LC50**	**EU Classification & R Phrases**	**Other**
Wood		84% TO 95%	NDA	NDA	NDA	NDA
Phenol	108-95-2	<= 2.5%	UN2821 (solution), 203-632-7	Ingestion/Oral-Rat LD50 · 512 mg/kg	T; R23/24/25 C; R34 Xn; R48/20/21/22 Muta.Cat.3; R68	NDA
Paraffin	8002-74-2	<= 1%	232-315-6	NDA	NDA	NDA

Non-HazardousComponents						
Chemical Name	**CAS**	**%(weight)**	**UN;EINECS**	**LD50/LC50**	**EU Classification & R Phrases**	**Other**
Base coat		<= 1%	NDA	NDA	NDA	NDA
PrePress sealer		<= 1%	NDA	NDA	NDA	NDA
Topcoat		<= 0.5%	NDA	NDA	NDA	NDA

Under United States Regulations (29 CFR 1910.1200(c) - Hazard Communication Standard), the product(s) listed above are exempt as article(s) under stated normal conditions of use. Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use. Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use. This product as an article is outside the scope of the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

Inhalation
- If signs/symptoms develop, move person to fresh air. If signs/symptoms continue, get medical attention.

Skin
- Wash skin with soap and water. If signs/symptoms develop, get medical attention.

Eye
- If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.

Ingestion
- If signs/symptoms develop, get medical attention.

Notes to Physician
- Exposure to dust may aggravate symptoms of persons with pre -existing respiratory tract conditions and may cause skin and gastrointestinal symptoms.

See Section 2 for Potential Health Effects.

Section 5 - Fire Fighting Measures

Extinguishing Media
- LARGE FIRE: Water spray, fog or regular foam.
  SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

Unsuitable Extinguishing Media
- None known.

Firefighting Procedures
- Fire fighters should wear complete protective clothing including self -contained breathing apparatus.

Unusual Fire and Explosion Hazards
- Airborne wood and resin dust dispersed in air in sufficient concentrations and in the presence of an ignition source is an explosion hazard.

Hazardous Combustion Products
- Carbon dioxide, carbon monoxide, nitrogen oxides, aldehydes, cyanides, and other hazardous gases, vapors, and particles.

Protection of Firefighters
- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA).

Autoignition Temperature
- 200 to 260 C(392 to 500 F)

Section 6 - Accidental Release Measures

Personal Precautions	▪ Avoid contact with material that generates respirable dust unless proper PPE is used.
Emergency Procedures	▪ Keep unauthorized personnel away. Use normal clean up procedures.
Environmental Precautions	▪ Not applicable.
Containment/Clean-up Measures	▪ Avoid dispersal of dust in the air.
Prohibited Materials	▪ No data available.

Section 7 - Handling and Storage

Handling	▪ Avoid accumulation of dust. Good housekeeping practices should be in place to prevent accumulation of dusts on surfaces. Do not use in areas without adequate ventilation.
Storage	▪ Ventilate enclosed areas. Keep dust away from ignition sources and store in a closed container. Consult NFPA 68 and 70 for additional information.
Special Packaging Materials	▪ No data available.
Incompatible Materials or Ignition Sources	▪ If dusts are generated during processing eliminate ignition sources.

Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment

Pictograms	▪ 
Respiratory	▪ Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced. For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters.
Eye/Face	▪ Wear safety glasses with side shields.
Hands	▪ Wear appropriate gloves.
Skin/Body	▪ No data available.
Engineering Measures/Controls	▪ Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. All dust control equipment should contain explosion relief vents or an explosion supression system or an oxygen-deficient environment. Make sure that dust handling systems are designed to prevent escape of dust into the work area and that they do not leak.

Exposure Limits/Guidelines						
	Result	ACGIH	Australia	Canada Nova Scotia	Canada Ontario	France
Paraffin (8002-74-2)	TWAs	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWA (fume)	2 mg/m3 TWAEV (fume)	2 mg/m3 VME (fume)
Phenol (108-95-2)	TWAs	5 ppm TWA	1 ppm TWA; 4 mg/m3 TWA	5 ppm TWA	5 ppm TWAEV; 19 mg/m3 TWAEV	2 ppm VME (restrictive limit); 7.8 mg/m3 VME (restrictive limit)
	STELs	Not established	Not established	Not established	Not established	4 ppm VLCT (restrictive limit); 15.6 mg/m3 VLCT (restrictive limit)
Wood	TWAs	Not established	Not established	Not established	Not established	1 mg/m3 VME (restrictive limit) *as Wood dust, all soft and hard woods*

Exposure Limits/Guidelines (Con't.)				
	Result	Netherlands	NIOSH	OSHA
Paraffin (8002-74-2)	TWAs	Not established	2 mg/m3 TWA (fume)	Not established
Phenol (108-95-2)	TWAs	8 mg/m3 TWA	5 ppm TWA; 19 mg/m3 TWA	5 ppm TWA; 19 mg/m3 TWA
	Ceilings	Not established	15.6 ppm Ceiling (15 min); 60 mg/m3 Ceiling (15 min)	Not established
Wood	TWAs	Not established	1 mg/m3 TWA *as Wood dust, all soft and hard woods*	Not established

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

VME = Valeur Moyenne d'Exposition is the maximum permissible concentration for a work day

VLCT = Valeurs limites d'exposition à court terme is the short-term exposure limit based on 15-minute exposure.

Section 9 - Physical and Chemical Properties

Physical Form
- Solid

Appearance/Description
- 3/8" or 7/16" hardboard substrate with baked on coatings. 12 ft. strips in widths of 6", 9", and 12".

Color : NDA		**Odor** : Slight to none.	
Taste : NDA		**Odor Threshold** : No data available	
Boiling Point:	No data available	**Vapor Pressure:**	No data available
Melting Point:	No data available	**Vapor Density:**	No data available
Specific Gravity/Relative Density:	0.95 to 1.1 Water=1	**Evaporation Rate:**	No data available
Density:	59.3084 to 68.6729 lb(s)/ft³	**VOC (Wt.):**	No data available
Bulk Density:	No data available	**VOC (Vol.):**	No data available

pH:	No data available	**Volatiles (Wt.):**	No data available
Water Solubility:	No data available	**Volatiles (Vol.):**	No data available
Solvent Solubility:	No data available	**Flash Point:**	No data available
Viscosity:	No data available	**Flash Point Test Type:**	No data available
Half-Life:	No data available	**UEL:**	No data available
Octanol/Water Partition coefficient:	No data available	**LEL:**	No data available
Coefficient of water/oil distribution:	No data available	**Autoignition:**	200 to 260 C(392 to 500 F)
Bioaccumulation Factor:	No data available	**Bioconcentration Factor:**	No data available
Biochemical Oxygen Demand BOD/BOD5:	No data available	**Chemical Oxygen Demand:**	No data available
Persistence:	No data available	**Degradation:**	No data available

Section 10 - Stability and Reactivity

Stability
- Stable under normal temperatures and pressures.

Hazardous Polymerization
- Hazardous polymerization will not occur.

Conditions to Avoid
- Accumulation of dusts - mixtures of wood dust and air are explosive when ignited.

Incompatible Materials
- Keep away from high temperatures and strong oxidizers, such as concentrated nitric acid, oxygen, hydrogen peroxide, and chlorine.

Hazardous Decomposition Products
- Carbon monoxide, hydrogen cyanide, and other products of wood combustion.

Section 11 - Toxicological Information

Other Material Information
- Prolonged exposure to wood dust by inhalation has been reported to be associated with nasal and paranasal cancer. Wood dust is classified as a carcinogen by ACGIH, NIOSH, and IARC. This classification is based on an increased incidence of nasal and paranasal cancer in people exposed to wood dusts.

Component Name	Concentration	CAS	Data
Formaldehyde	< 0.1%	50-00-0	**Acute Toxicity:** ihl-rat LC50:203 mg/m3; **Tumorigen/Carcinogen:** ihl-rat TC :14 ppm/6H/84W-I

Other Component Information
- Residual formaldehyde gas may be released from this product. Formaldehyde gas is irritating to the eyes and upper respiratory tract and may aggravate exisiting respiratory conditions or allergies. OSHA has listed formaldehyde as a potential human carcinogen. Wood dust is known to be a human carcinogen.

See also Section 2.

Section 12 - Ecological Information

Ecological Fate
- No data available

Persistence/Degradability
- No data available.

Bioaccumulation Potential
- No data available.

Mobility in Soil
- No data available.

Other Information
- For the untreated product, the wood products are not expected to pose an ecological hazard as a result of their intended uses.

Section 13 - Disposal Considerations

Product
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging

- Dispose of this container to hazardous or special waste collection point.

Section 14 - Transportation Information

DOT - United States - Department of Transportation
Shipping Name: Not regulated

TDG - Canada - Transport of Dangerous Goods
Shipping Name: Not regulated

IMO/IMDG –International Maritime Transport
Shipping Name: Not regulated

ADN - Europe Transport of Dangerous Goods by Road/Inland Waterway
Shipping Name: Not regulated

ADR - Europe Transport of Dangerous Goods by Road/Inland Waterway
Shipping Name: Not regulated

Section 15 - Regulatory Information

State Right To Know				
Component	CAS	MA	NJ	PA
Base coat	NDA	No	No	No
PrePress sealer	NDA	No	No	No
Topcoat	NDA	No	No	No
Wood	NDA	No	No	No
Phenol	108-95-2	Yes	Yes	Yes
Paraffin	8002-74-2	Yes	Yes	Yes
Formaldehyde	50-00-0	Yes	Yes	Yes

Inventory						
Component	CAS	Australia AICS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS
Base coat	NDA	No	No	No	No	No
PrePress sealer	NDA	No	No	No	No	No
Topcoat	NDA	No	No	No	No	No
Wood	NDA	No	No	No	No	No
Phenol	108-95-2	Yes	Yes	No	Yes	No
Paraffin	8002-74-2	Yes	Yes	No	Yes	No
Formaldehyde	50-00-0	Yes	Yes	No	Yes	No

Inventory (Con't.)		
Component	CAS	TSCA
Base coat	NDA	No
PrePress sealer	NDA	No

Topcoat	NDA	No
Wood	NDA	No
Phenol	108-95-2	Yes
Paraffin	8002-74-2	Yes
Formaldehyde	50-00-0	Yes

Australia

Labor

Australia - Hazardous Substances - Substances Requiring Health Surveillance

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Australia - High Volume Industrial Chemicals List

• Phenol	108-95-2	<= 2.5%	
• Paraffin	8002-74-2	<= 1%	
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Australia - List of Designated Hazardous Substances - Classification

• Phenol	108-95-2	<= 2.5%	T, Xn, C Muta.Cat.3 R68, R23/24/25, R48/20/21/22, R34
• Paraffin	8002-74-2	<= 1%	Self classification required (fume)
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Environment

Australia - National Pollutant Inventory (NPI) Substance List

• Phenol	108-95-2	<= 2.5%	10 tonnes/year Threshold category 1
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Australia - Priority Existing Chemical Program

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Phenol	108-95-2	<= 2.5%	D1A, E
• Paraffin	8002-74-2	<= 1%	Uncontrolled product according to WHMIS classification criteria
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Phenol	108-95-2	<= 2.5%	1 %
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Phenol	108-95-2	<= 2.5%	Priority Substance List 2 (substance not considered toxic)
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Canada Nova Scotia

Environment

Canada - Nova Scotia - Ozone Layer Protection Regulations

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Canada Ontario

Environment

Canada - Ontario - Airborne Contaminant Reporting - Table 2A

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Canada - Ontario - Airborne Contaminant Reporting - Table 2B

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• Phenol	108-95-2	<= 2.5%	T; R23/24/25 C; R34 Xn; R48/20/21/22 Muta.Cat.3; R68
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Phenol	108-95-2	<= 2.5%	10%<=C: T; R23/24/25 3%<=C<10%: Xn; R20/21/22 3%<=C: C; R34 1% <=C<3%: Xi; R36/38
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Phenol	108-95-2	<= 2.5%	T R:23/24/25-34-48/20/21/22-68 S:(1/2)-24/25-26-28-36/37/39-45
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Phenol	108-95-2	<= 2.5%	S:(1/2)-24/25-26-28-36/37/39-45

• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Netherlands

Other

Netherlands - List of Carcinogens

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Netherlands - Major Accidents - Qualifying Quantities for Accident Prevention

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Netherlands - Major Accidents - Qualifying Quantities for Safety Reporting

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Phenol	108-95-2	<= 2.5%	
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Phenol	108-95-2	<= 2.5%	1000 lb final RQ; 454 kg final RQ
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Phenol	108-95-2	<= 2.5%	1000 lb EPCRA RQ
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Phenol	108-95-2	<= 2.5%	500 lb lower TPQ; 10000 lb upper TPQ
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Phenol	108-95-2	<= 2.5%	1.0 % de minimis concentration
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - EPA - Designated Generic Categories - Pesticides and Other PBTs

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - EPA - Designated Generic Categories - Polychlorinated Alkanes

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

• Phenol	108-95-2	<= 2.5%	Included in waste streams: F039, K001, K022, K087
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

• Phenol	108-95-2	<= 2.5%	waste number U188
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

• Phenol	108-95-2	<= 2.5%	waste number U188
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	carcinogen, initial date 12/18/09

U.S. - California - Proposition 65 - Developmental Toxicity

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Phenol	108-95-2	<= 2.5%	
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Phenol	108-95-2	<= 2.5%	Not Listed
• Paraffin	8002-74-2	<= 1%	Not Listed
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Not Listed

United States - Rhode Island

Labor

U.S. - Rhode Island - Hazardous Substance List

• Phenol	108-95-2	<= 2.5%	Toxic; Flammable
• Paraffin	8002-74-2	<= 1%	Toxic (fume)
• Wood as Wood dust, all soft and hard woods		84% TO 95%	Toxic

Section 16 - Other Information

Preparation Date
- 07/12/2011

Last Revision Date
- 07/12/2011

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Key to abbreviations

NDA = No Data Available