

Safety Data Sheet



Section 1: Identification

Product identifier

Product Name • **Laminated Veneer Lumber Bonded With Phenolic Formaldehyde Resin/Adhesive**

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

Recommended use • Building materials

Details of the supplier of the safety data sheet

Manufacturer • Murphy Engineered Wood Division
412 W. Central
Sutherlin, OR 97479
United States

Telephone (General) • 541-459-4545

Emergency telephone number

Manufacturer • 541-459-4545

Section 2: Hazard Identification

UN GHS

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Classification of the substance or mixture

UN GHS • Skin Sensitization 1
Respiratory Sensitization 1
Carcinogenicity 1A
Specific Target Organ Toxicity Repeated Exposure 1

Label elements

UN GHS

DANGER



- Hazard statements**
- May cause an allergic skin reaction
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 - May cause cancer.
 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention**
- Obtain special instructions before use.
 - Do not handle until all safety precautions have been read and understood.
 - Do not breathe dust.
 - Wash thoroughly after handling.
 - Do not eat, drink or smoke when using this product.
 - Contaminated work clothing should not be allowed out of the workplace.
 - Wear protective gloves .
 - Use personal protective equipment as required.
 - In case of inadequate ventilation wear respiratory protection.

- Response**
- IF INHALED: If breathing is difficult, 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.
 - IF ON SKIN: Wash with plenty of soap and water.
 - Wash contaminated clothing before reuse.
 - Specific treatment, see supplemental first aid information.
 - If skin irritation or rash occurs: Get medical advice/attention.
 - IF exposed or concerned: Get medical advice/attention.
 - Get medical advice/attention if you feel unwell.

- Storage/Disposal**
- Store locked up.
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

UN GHS

- May form combustible dust concentrations in air.
- According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012

- Skin Sensitization 1
- Respiratory Sensitization 1
- Carcinogenicity 1A
- Specific Target Organ Toxicity Repeated Exposure 1
- Combustible Dust

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 cancer.
 - Causes damage to organs through prolonged or repeated exposure.
 - 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.
 - Do not breathe dust.
 - Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
In case of inadequate ventilation wear respiratory protection.

- Response**
- IF INHALED: If breathing is difficult, 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.
If on skin: Wash with plenty of water .
Wash contaminated clothing before reuse.
Specific treatment, see supplemental first aid information.
If skin irritation or rash occurs: Get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.

- Storage/Disposal**
- Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

Classification of the substance or mixture

WHMIS

- Other Toxic Effects - D2A
Other Toxic Effects - D2B

Label elements

WHMIS



- Other Toxic Effects - D2A
Other Toxic Effects - D2B

Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Wood dust	NDA	96% TO 99%	NDA	UN GHS: Comb. Dust; Carc. 1A; STOT RE 1 (Lungs); Resp. Sens. 1; Skin Sens. 1 OSHA HCS 2012: Comb. Dust; Carc. 1A; STOT RE 1	NDA

				(Lungs); Resp. Sens. 1; Skin Sens. 1	
Formaldehyde	CAS:50-00-0	< 0.1%	Ingestion/Oral-Rat LD50 • 100 mg/kg Inhalation-Rat LC50 • 203 mg/m ³ Skin-Rabbit LD50 • 270 mg/kg	OSHA HCS 2012: Exposure limits	NDA

Section 4: First-Aid Measures

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, immediately flush skin with running water for at least 20 minutes. 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.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

- Immediate medical attention after exposure to this material not expected to be necessary. No special treatment indicated related to exposure to this material.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • Water, Carbon Dioxide, or multipurpose ABC dry chemical extinguisher.

Unsuitable Extinguishing Media

- None known.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- Sawing, sanding or machining wood products can produce wood dust as a by-product. 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

- Thermal –oxidative degradation, or burning, of wood can produce irritating and potentially toxic fumes and gases including carbon monoxide, aldehydes, and organic acids.

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

Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact.

Emergency Procedures

- Contain spill and monitor for excessive dust accumulation. Avoid unnecessary personnel and equipment traffic in the spill area.

Environmental precautions

- No special environmental precautions necessary.

Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Avoid generating dust.
Use clean nonsparking tools to collect material.
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.

Section 7 - Handling and Storage

Precautions for safe handling

Handling

- Use only with adequate ventilation. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Wet down, or use an approved exhaust system, to control wood dust generated by sawing, sanding, or machining to reduce the likelihood of ignition or dispersion of dust into the air. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe dust. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities

Storage

- Ensure that product is stored properly, supported adequately and protected from direct contact with the ground. Wood products are combustible and should not be subjected to temperatures exceeding the auto ignition temperature. Store in a cool, dry, well-ventilated place.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Formaldehyde (50-00-0)	STELs	Not established	Not established	2 ppm STEL (see 29 CFR 1910.1048)
	TWAs	Not established	0.016 ppm TWA	0.75 ppm TWA
	Ceilings	0.3 ppm Ceiling	0.1 ppm Ceiling (15 min)	Not established
Wood dust as Particulates not otherwise classified (PNOC)	TWAs	10 mg/m ³ TWA (inhalable particles, recommended); 3 mg/m ³ TWA (respirable particles, recommended) <i>as Particulates not otherwise classified (PNOC)</i>	1 mg/m ³ TWA <i>as Wood dust, all soft and hard woods</i>	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) <i>as Particulates not otherwise classified (PNOC)</i>
		0.5 mg/m ³ TWA (inhalable fraction) <i>as Wood dust, western red cedar</i>		
		1 mg/m ³ TWA (inhalable fraction)		
		<i>as Wood dusts (all other wood dusts)</i>		

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). It is recommended that dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Use only appropriately classified electrical 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. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Skin/Body

- Wear appropriate gloves. Wear long sleeves and/or protective coveralls.

Environmental Exposure Controls

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

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

STEL = Short Term Exposure Limits are based on 15-minute exposures

NIOSH = National Institute of Occupational Safety and Health

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

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties**Information on Physical and Chemical Properties**

Material Description			
Physical Form	Solid	Appearance/Description	Solid. Color and odor dependent upon wood species.
Color	Dependent upon species.	Odor	Dependent upon wood species.
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	< 1 Water=1	Water Solubility	No data available
Viscosity	No data available		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	No data available	UEL	No data available
LEL	No data available	Autoignition	400 to 500 F(204.4444 to 260 C) for wood
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity**Reactivity**

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization not indicated.

Conditions to avoid

- Avoid ignition sources where dust is produced. Wood dust generated from sawing, sanding or machining is extremely combustible.

Incompatible materials

- Oxidizing agents and dry oils.

Hazardous decomposition products

- Thermal-oxidative degradation, or burning, of wood can produce irritating and potentially toxic fumes and gases including carbon monoxide, aldehydes, organic acids and hazardous particles.

Section 11 - Toxicological Information

Information on toxicological effects

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 • No data available UN GHS • No data available
Aspiration Hazard	OSHA HCS 2012 • No data available UN GHS • No data available
Carcinogenicity	OSHA HCS 2012 • Carcinogenicity 1A UN GHS • Carcinogenicity 1A
Germ Cell Mutagenicity	OSHA HCS 2012 • No data available UN GHS • No data available
Skin corrosion/Irritation	OSHA HCS 2012 • No data available UN GHS • No data available
Skin sensitization	OSHA HCS 2012 • Skin Sensitizer 1 UN GHS • Skin Sensitizer 1
STOT-RE	OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1 UN GHS • Specific Target Organ Toxicity Repeated Exposure 1
STOT-SE	OSHA HCS 2012 • No data available UN GHS • No data available
Toxicity for Reproduction	OSHA HCS 2012 • No data available UN GHS • No data available
Respiratory sensitization	OSHA HCS 2012 • Respiratory Sensitizer 1 UN GHS • Respiratory Sensitizer 1
Serious eye damage/Irritation	OSHA HCS 2012 • No data available UN GHS • No data available

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

- Chronic (Delayed)**
- workplace. Nuisance dust may affect the lungs but reactions are typically reversible.
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. A large number of studies have demonstrated that occupational exposure to wood dust causes both statistically significant and nonsignificant increases in respiratory symptoms. These symptoms range from irritation to bleeding, wheezing, sinusitis, and prolonged colds. In addition, chronic wood dust exposure causes mucociliary stasis (i.e., the absence of effective clearance) in the nose and, in some workers, also causes changes in the nasal mucosa.

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

- Repeated and prolonged exposure may cause cancer. IARC and NTP classify wood dust as a carcinogen. This classification is based on the increased occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. The evaluation noted insufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust.

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

Section 12 - Ecological Information

Toxicity

- Material data lacking.

Persistence and degradability

- Material data lacking.

Bioaccumulative potential

- Material data lacking.

Mobility in Soil

- Material data lacking.

Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

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

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	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

Special precautions for user ● None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code ● No data available

Section 15 - Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA Hazard Classifications ● Acute, Chronic, Pressure(Sudden Release of)

Inventory				
Component	CAS	Canada DSL	Canada NDSL	TSCA
Formaldehyde	50-00-0	Yes	No	Yes

Canada**Labor****Canada - WHMIS - Classifications of Substances**

● Formaldehyde 50-00-0 A, B1, D1A, D2A, D2B; B3, D1A, D2A, D2B, E (regulated under Formol)

Canada - WHMIS - Ingredient Disclosure List

● Formaldehyde 50-00-0 0.1 %

Environment**Canada - CEPA - Priority Substances List**

● Formaldehyde 50-00-0 Priority Substance List 2 (substance considered toxic)

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

● Formaldehyde 50-00-0 1000 lb TQ

U.S. - OSHA - Specifically Regulated Chemicals

• Formaldehyde	50-00-0	2 ppm STEL (See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level (See 29 CFR 1910.1048); 0.75 ppm TWA (See 29 CFR 1910.1048)
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Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Formaldehyde	50-00-0	
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U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Formaldehyde	50-00-0	100 lb final RQ; 45.4 kg final RQ
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U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Formaldehyde	50-00-0	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Formaldehyde	50-00-0	100 lb EPCRA RQ
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Formaldehyde	50-00-0	500 lb TPQ
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U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Formaldehyde	50-00-0	0.1 % de minimis concentration
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U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Formaldehyde	50-00-0	Not Listed
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United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Formaldehyde	50-00-0	carcinogen, initial date 1/1/88 (gas)
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U.S. - California - Proposition 65 - Developmental Toxicity

• Formaldehyde	50-00-0	Not Listed
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U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Formaldehyde	50-00-0	Not Listed
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U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Formaldehyde	50-00-0	40 µg/day NSRL (gas)
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U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Formaldehyde	50-00-0	Not Listed
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U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Formaldehyde	50-00-0	Not Listed
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Other Information

- **WARNING:** This product contains a chemical known to the State of California to

cause cancer.

Section 16 - Other Information

Last Revision Date

- 22/June/2015

Preparation Date

- 28/December/2014

Disclaimer/Statement of Liability

- Murphy Engineered Wood Division believes that the information contained in this SDS to be accurate and has been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with all applicable federal, state and local laws and regulations. Murphy Engineered Wood Division makes no warranty of any kind, expressed or implied, concerning the accuracy or completeness of the information and data herein. Murphy Engineered Wood Division and its entities will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet (SDS)



Laminated Veneer Lumber (LVL)

1. Identification

TRADE NAME (AS LABELED): Laminated Veneer Lumber (LVL)

SYNONYMS: Header, Phenol Formaldehyde/Resorcinol Formaldehyde Bonded Product

PRODUCT USES: Building Materials

CHEMICAL NAME/CLASS: Wood Products

MANUFACTURER'S NAME: Pacific Woodtech Corporation
ADDRESS: 1850 Park Lane, Burlington, WA. 98233
EMERGENCY PHONE: (800) 424-9300 (CHEMTREC)
BUSINESS PHONE: (360) 707-2200
INTERNET ACCESS: <http://www.pacificwoodtech.com>
REVISED DATE: March 3 2015

2. Hazard(s) Identification

Signal Word: DANGER

Product Classification (GHS)	Hazard Statement(s)	Pictogram(s)
HEALTH Carcinogenicity- Category 1A	Dusts may cause nasopharyngeal cancer and/or cancer of the nasal cavities and paranasal sinuses	A red diamond-shaped pictogram with a black silhouette of a person's head and neck, indicating a health hazard.

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

Hazards Not Otherwise Classified (HNOC): Warning! Laminated Veneer Lumber (LVL) may form Combustible dust concentrations in air during processing. Specifically, in instances where product dust is suspended in air in sufficient concentrations in proximity to an ignition source. Users of this product should examine the potential to generate wood and organic resin dust during handling and processing and related combustibility hazards and controls. See additional comments in SDS.

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

Precautionary Statement(s):

Prevention Statements - Do not handle until all safety precautions have been read and understood. Wear eye and respiratory protection for excessive wood dust exposures. Do not breathe dust. In case of inadequate ventilation wear respiratory protection. Avoid creating dusty conditions whenever feasible.

Response Statements – If exposed or concerned get medical advice/attention. Remove contact lenses if present and rinse eyes thoroughly if particles are in the eye. If eye irritation persists, get medical advice/attention.

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 (C ₇ H ₆ O ₂)	9003-35-4	1-9
Paraffin Wax ³	8002-74-2	0-2

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

4. First Aid Measures

Ingestion: Not applicable under normal use.

Eye Contact: Wood and resin dust may cause mechanical irritation. Treat dust in eye as foreign object. Flush with water to remove dust particles. Seek medical help if irritation persists.

Skin Contact: Wood dust of certain species can elicit allergic contact dermatitis in sensitized individuals, as well as mechanical irritation resulting in erythema and hives. Seek medical help if rash, irritation or dermatitis persists. Resin dust may also cause skin reactions in susceptible individuals.

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

Inhalation: Wood and resin dust may cause unpleasant obstruction in the nasal passages, resulting in dryness of nose, dry cough, sneezing and headaches. Remove to fresh air. Seek medical help if persistent irritation, severe coughing or breathing difficulty occurs.

Symptoms or Effects:

Acute Symptoms - Wood dust can cause eye irritation. Certain species of wood dust can elicit allergic contact dermatitis in sensitized individuals. Wood dust may cause respiratory irritation, nasal dryness, coughing, sneezing and wheezing as a result of inhalation. Formaldehyde may cause temporary irritation of skin, eyes, or respiratory system.

Chronic Symptoms - Wood dust, depending on the species, may cause allergic contact dermatitis and respiratory sensitization with prolonged, repetitive contact or exposure to elevated dust levels. Formaldehyde may cause sensitization in susceptible individuals.

Note to Physician/Special Treatment: None

5. Fire-fighting Measures

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

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

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

Special Firefighting Equipment/Procedures: None

5. Fire Fighting Measures (cont'd.)

Unusual Fire and Explosion Hazards: Depending on moisture content and more importantly, particle diameter and airborne concentration, wood and resin dust may explode in the presence of an ignition source. Wood dust may similarly deflagrate (combustion without detonation like an explosion) if ignited in an open or loosely contained area. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dusts. Reference NFPA Standards 654 and 664 for guidance. Ventilation systems should be kept clean and precautions should be taken to prevent sparks or other ignition sources.

6. Accidental Release Measures

Steps to be Taken In Case Material Is Released or Spilled: Sweep or vacuum up for recovery and disposal. Avoid creating dusty conditions whenever feasible. Maintain good housekeeping to avoid accumulation of dried wood and resin dust on exposed surfaces. Use approved filtering facepiece respirator ("dust mask") and goggles where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort. Place recovered wood dust in a container for proper disposal.

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 dusts. These products may release some formaldehyde in gaseous form. Specific handling and storage conditions should be assessed to determine potential formaldehyde concentrations. 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	PEL-TWA 0.75 ppm	Free gaseous formaldehyde
	OSHA	PEL-STEL 2 ppm	
	ACGIH	TLV- (C) 0.3 ppm	Ceiling limit
Paraffin wax	OSHA	PEL-TWA 2 mg/m ³	Paraffin wax fume
	ACGIH	TLV-TWA 2 mg/m ³	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/m³ PEL-TWA and 10 mg/m³ STEL (15 min), all softwood and hardwood except Western Red Cedar. Wood dust is now regulated by OSHA as "Particulates Not Otherwise Regulated" (PNOR), which is also referred to as "nuisance dust". However, some states have incorporated the 1989 OSHA PEL's in their state plans. Additionally, OSHA indicated that it may cite employers under the OSH Act general duty clause in appropriate circumstances for noncompliance with the 1989 PEL¹⁵.

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

^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. Large scale chamber studies conducted by the APA Engineered Wood Association on panel materials using similar manufacturing processes and adhesives Laminated Veneer Lumber (LVL) have shown that the finished products should off-gas levels below 0.1 ppm as well.

Ventilation:

LOCAL EXHAUST – Provide local exhaust as needed so that exposure limits are met. Ventilation to control dust should be considered where potential explosive concentrations and ignition sources are present. The design and operation of any exhaust system should consider the possibility of explosive concentrations of wood dust within the system. See “SPECIAL” section below. Use of tool mounted exhaust systems should also be considered, especially when working in enclosed areas.

MECHANICAL (GENERAL) – Provide general ventilation in processing and storage areas so that exposure limits are met.

SPECIAL – Ensure that exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or suppression systems designed and operated in accordance with applicable standards if the operating conditions justify their use.

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

Personal Protective Equipment:

RESPIRATORY PROTECTION – Use NIOSH approved filtering face piece respirator (“dust mask”) or higher levels of respiratory protection as indicated if there is a potential to exceed the exposure limits or for symptom relief or worker comfort. Use respiratory protection in accordance with regulatory requirements such as the OSHA respiratory protection standard 29 CFR 1910.134 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 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 odor and natural wood color. The wood component of these products may consist of aspen, Douglas fir, western hemlock, southern yellow pine or yellow poplar.

Odor/ Odor Threshold(s):	NAV
pH:	NAP
Melting/Freezing Point:	NAP
Boiling Point (@ 760 mm Hg) and Range:	NAP
Flash Point:	NAV
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

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

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.

Hazardous Decomposition or By-Products: Thermal decomposition (i.e. smoldering, burning) can release carbon monoxide, oxides of nitrogen, carbon dioxide, aliphatic aldehydes including formaldehyde, resin acids, terpenes and polycyclic aromatic hydrocarbons. 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: NAP

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, Twelfth Edition, NTP states, "Wood dust is known to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in humans". An association between wood dust exposure and cancer of the nasal cavity has been observed in many case reports, cohort studies, and case-control studies that specifically addressed nasal cancer. Strong and consistent associations with cancer of the nasal cavities and paranasal sinuses were observed both in studies of people whose occupations are associated with wood dust exposure and in studies that directly estimated wood dust exposure. This classification is based primarily on increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. The evaluation did not find sufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust. There is inadequate evidence for the carcinogenicity of wood dust from studies in experimental animals according to NTP.

11. Toxicological Information (cont'd.)

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, Twelfth 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.

Carcinogenicity Listing:

- 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

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 nasal dryness, irritation, coughing and sinusitis. NTP and IARC classify wood dust as a human carcinogen (IARC Group 1). 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. IARC and NTP classify formaldehyde as a human carcinogen (IARC Group 1). See Section 2 above.

Target Organs: Eyes, skin, respiratory system.

12. Ecological Information

Ecotoxicity: NAV for finished product.

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

Biopersistence and Degradability:

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.

The wood and resin portions of this product would be expected to be biodegradable.

Bioaccumulation: NAV

Soil Mobility: NAV

Other adverse effects: NAP

13. Disposal Considerations

Waste Disposal Method: If disposed of or discarded in its purchased form, incineration is preferable, if allowed. Dry land disposal is acceptable in most states. It is, however, the user's responsibility to determine at the time of disposal whether your product meets RCRA criteria for hazardous waste. Follow applicable federal, state, and local regulations.

14. Transport Information

Mode: (Air, Land, water) Not regulated as a hazardous material by the U.S. Department of Transportation. Not listed as a hazardous material in Canadian Transportation of Dangerous Goods (TDG).

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 dust generated by sawing, sanding or machining this product may be hazardous. Workplace exposure to formaldehyde is specifically regulated under 29 CFR 1910.1048.

STATE RIGHT-TO-KNOW:

California Prop 65 – This product contains formaldehyde, which depending on temperature and humidity, may be emitted from the product. Pacific Woodtech has evaluated formaldehyde emission rates from its products and have found these rates to be below the significant risk level. The user should determine whether formaldehyde emissions resulting from its site specific use, handling, ventilation design, capacity and final construction design for this product could exceed the safe harbor level.

Warning: Drilling, sawing, sanding or machining wood products generates wood dust, a substance 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 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 and wood dust appear on New Jersey's Environmental Hazardous Substance List.

Minnesota – Minnesota Statutes, 1984, Sections 144.495 and 325F.181 do not apply to this product; these statutes apply to plywood, particleboard and MDF and other products manufactured with urea-formaldehyde resins.

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

15. Regulatory Information (cont'd.)

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 A	Yes
corrosive hazard	No
A fire hazard	No
A reactivity hazard	No
A sudden release hazard	No

FDA: Not intended for use as a food additive or indirect food contact item.

WHMIS Classification: Controlled Product: D2A - wood dust and formaldehyde: IARC Group 1.

16. Other Information

Date Prepared: 12/14/2010

Date Revised: 03/03/2015

Prepared By: Pacific Woodtech Corporation

Pacific Woodtech SDS available on:

<http://www.pacificwoodtech.com/EvaluationReports.html>

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 make sure that this SDS is the most up-to-date issue.

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)
EC50	=	Effective Concentration That Inhibits the Endpoint to 50% of Control Population
EPA	=	U.S. Environmental Protection Agency
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
LC50	=	Concentration in Air Resulting in Death To 50% of Experimental Animals
LCLo	=	Lowest Concentration in Air Resulting in Death
LD50	=	Administered Dose Resulting in Death to 50% of Experimental Animals
LDLo	=	Lowest Dose Resulting in Death
LEL	=	Lower Explosive Limit
LFL	=	Lower Flammable Limit
MSHA	=	Mine Safety and Health Administration
NAP	=	Not Applicable
NAV	=	Not Available
NIOSH	=	National Institute for Occupational Safety and Health
NFPA	=	National Fire Protection Association
NPRI	=	Canada-National Pollution Release Inventory
NTP	=	National Toxicology Program
OSHA	=	Occupational Safety and Health Administration

16. Other Information (cont'd.)

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

Laminated Veneer Lumber (LVL)

SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Laminated Veneer Lumber (LVL)

Manufacturer/Supplier Trade name: RigidLam® LVL

Manufacturer/Supplier Article number:

Recommended uses of the product and restrictions on use: Building Material - Structural

Manufacturer Details:

Roseburg
P. O. Box 1088
Roseburg, Oregon 97470
541-679-3311

Supplier Details:

Roseburg
P. O. Box 1088
Roseburg, Oregon 97470
541-679-3311

Emergency telephone number:

Roseburg: 541-679-3311

SECTION 2: Hazards identification

Classification of the substance or mixture:

Not classified for physical or health hazards under GHS.
Hazards Not Otherwise Classified - Combustible Dust.

Hazard statements:

Precautionary statements:

If medical advice is needed, have product container or label at hand.
Read label before use.
Do not eat, drink or smoke when using this product.

Combustible Dust Hazard:

May form combustible dust concentrations in air (during processing).

Other Non-GHS Classification:

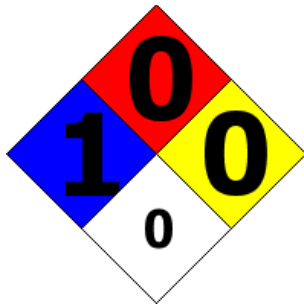
WHMIS

D2A



NFPA/HMIS

Laminated Veneer Lumber (LVL)



NFPA SCALE (0-4)

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	X

HMIS RATINGS (0-4)

SECTION 3: Composition/information on ingredients

Ingredients:		
CAS n/a	Wood	95 %
CAS 9003-35-4	Phenol Formaldehyde Resin	4 – 5%
CAS n/a	LVL Structural seal (F)	0.1 %
Percentages are by weight		

SECTION 4: First aid measures

Description of first aid measures

After inhalation: Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Get medical assistance if cough or other symptoms appear.

After skin contact: Rinse/flush exposed skin gently using soap and water for 15-20 minutes. Seek medical advice if discomfort or irritation persists. Wood dust of certain species may elicit allergic contact dermatitis in sensitized individuals and can cause mechanical irritation.

After eye contact: Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned.

After swallowing: Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:

Irritation, nausea, headache, shortness of breath.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician. Physician should treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents: Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors. FIRE can result in carbon dioxide,

Laminated Veneer Lumber (LVL)

carbon monoxide, oxides of nitrogen, aldehydes, cyanides and other hazardous gases and particles. Fine wood dust may be generated with the chips are ground or further machined. Fine wood dust can be explosive in the presence of an ignition source depending on particle size and moisture content. Airborne concentrations of 40 grams per cubic meter are often used as the lower explosive limit (LEL) for wood dusts. OSHA interprets the explosive level as having no visibility within five feet or less.

Advice for firefighters:

Protective equipment: Use NIOSH-approved respiratory protection/breathing apparatus.

Additional information (precautions): Move product containers away from fire or keep cool with waterspray as a protective measure, where feasible. Use spark-proof tools and explosion-proof equipment. 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. Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Use spark-proof tools and explosion-proof equipment. Ensure that air-handling systems are operational. Ensure adequate ventilation.

Environmental precautions:

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Should not be released into environment.

Methods and material for containment and cleaning up:

Keep in suitable closed containers for disposal. Always obey local regulations. Wood dust generated from sawing, sanding, or machining may be vacuumed or shoveled for recovery or disposal. Avoid dusty conditions and provide good ventilation. Use NIOSH/MSHA-approved respiratory protection and goggles where exposure limits may be exceeded. Wear protective eyewear, gloves, and clothing. Refer to Section 8. 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. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect solids in powder form using vacuum with (HEPA filter).

Reference to other sections:**SECTION 7: Handling and storage****Precautions for safe handling:**

Minimize dust generation and accumulation. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities:

Store away from incompatible materials. Protect from freezing and physical damage. Keep away from food and beverages. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store in cool, dry conditions in well-sealed containers. Store with like hazards.

SECTION 8: Exposure controls/personal protection

Laminated Veneer Lumber (LVL)

Control Parameters: n/a, Wood Dust, OSHA PEL TWA (Total Dust) 15 mg/m³ (50 mppcf*)
n/a, Wood Dust, ACGIH TLV TWA (inhalable particles) 1 mg/m³
50-00-0, Formaldehyde, OSHA PEL:TWA 0.75mg/m³
50-00-0, Formaldehyde, ACGIH TLV STEL 0.3 ppm
n/a, Cured Resin Solids as dust , ACGIH TLV TWA 0.3 ppm

Appropriate Engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/reparable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. 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 no leakage from the equipment). Use under a fume hood

Respiratory protection: Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

Protection of skin: Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing. Protective Gloves: Cloth, canvas or leather gloves are recommended for protection against mechanical irritation or wood splinters.

Eye protection: Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

General hygienic measures: Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing.

SECTION 9: Physical and chemical properties

Appearance (physical state,color):	Solid	Explosion limit lower: Explosion limit upper:	Not determined Not determined
Odor:	Not Determined	Vapor pressure:	Not determined
Odor threshold:	Not determined	Vapor density:	Not determined
pH-value:	Not Determined	Relative density:	0.40-0.80, variable depends on wood species and moisture
Melting/Freezing point:	Not determined	Solubilities:	<0.1% in water
Boiling point/Boiling range:	Not determined	Partition coefficient (n-octanol/water):	Not determined
Flash point (closed cup):	Not determined	Auto/Self-ignition temperature:	Not determined
Evaporation rate:	Not determined	Decomposition temperature:	Not determined

Laminated Veneer Lumber (LVL)

Flammability (solid,gaseous):	Not determined	Viscosity:	a. Kinematic: Not determined b. Dynamic: Not determined
Density: Not determined			

SECTION 10: Stability and reactivity

Reactivity: Nonreactive under normal conditions.
Chemical stability: Stable under normal conditions.
Possible hazardous reactions: None under normal processing.
Conditions to avoid: Incompatible Materials. Avoid open flame. Product may ignite at temperatures in excess of 400F (204C).
Incompatible materials: Concentrated acids or bases will alter the product. Avoid contact with magnesium, aluminum, zinc (galvanized), tin, chromium, brass and bronze. Contact with these materials may generate hydrogen which is explosive. Exposure to elevated temperatures or strong acids or bases will cause polymerization with evolution of formaldehyde, phenol and/or water.
Hazardous decomposition products: Thermal and/or thermal-oxidative decomposition can produce irritating toxic fumes and gases, including carbon monoxide, carbon dioxide, phenol, formaldehyde, sulfur oxides, nitrogen oxides, and hazardous particles.

SECTION 11: Toxicological information

Acute Toxicity: No additional information.	
Chronic Toxicity: No additional information.	
Corrosion Irritation: No additional information.	
Sensitization:	No additional information.
Single Target Organ (STOT):	No additional information.
Numerical Measures:	No additional information.
Carcinogenicity:	Wood Dust: Wood Dust Carcinogenicity Listing: Wood dust is listed by NTP known to be a Human Carcinogen (10th Report), IARC Monographs: Wood dust, Group 1 - IARC Group 1: Carcinogenic to humans; sufficient evidence of carcinogenicity. This classification is primarily based on studies showing an association between occupational exposure to wood dust and adenocarcinoma of the nasal cavities and paranasal sinuses. IARC did not find sufficient evidence of an association between occupational exposure to wood dust and cancers of the hypopharynx, oropharynx, lymphatic and hematopoietic systems, lungs, stomach, colon or rectum. Formaldehyde: Formaldehyde is listed by IARC as Carcinogenic to Humans (Group 1) for sufficient evidence that formaldehyde causes nasopharyngeal, a rare cancer in humans, and "limited evidence" for cancer of nasal cavity and sinuses, and a "strong but not sufficient evidence" for leukemia. NTP included formaldehyde in the annual report on carcinogens. OSHA regulated formaldehyde as a potential carcinogen.
Mutagenicity:	No additional information.
Reproductive Toxicity:	No additional information.

SECTION 12: Ecological information

Laminated Veneer Lumber (LVL)**Eco toxicity Persistence and degradability:****Bio accumulative potential:****Mobility in soil:****Other adverse effects:****SECTION 13: Disposal considerations****Waste disposal recommendations:**

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14: Transport information**UN-Number**

Not Regulated.

UN proper shipping name

Not Regulated.

Transport hazard class(es)**Packing group:** Not Regulated.**Environmental hazard:****Transport in bulk:****Special precautions for user:****SECTION 15: Regulatory information****United States (USA)****SARA Section 311/312 (Specific toxic chemical listings):**

Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

RCRA (hazardous waste code):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

50-00-0 Formaldehyde

Proposition 65 (California):**Chemicals known to cause cancer:**

n/a Wood Dust

50-00-0 Formaldehyde

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

Laminated Veneer Lumber (LVL)

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

Title 22 California Code of Regulations requires that a clear and reasonable warning be given before exposure to chemicals listed by the State of California as causing cancer or reproductive toxicity. Wood dust and Formaldehyde is on California's list of chemicals known to the State to cause cancer.

Prop 65 WARNING:

Drilling, sawing, sanding or machining wood products generates wood dust and other substances known to the State of California to cause cancer. Avoid inhaling dust generated from wood products or use a dust mask or other safeguards for personal protection. Wood products emit chemicals known to the State of California to cause birth defects or other reproductive harm.

Canada**Canadian Domestic Substances List (DSL):**

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients are listed.

SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material. Roseburg RigidLam® LVL is manufactured to the U.S. Structural Composite Lumber (SCL) standard, ASTM D 5456. This standard requires the use of exterior exposure, moisture resistant adhesives. All grades of RigidLam® LVL are manufactured with phenol-formaldehyde based adhesive systems and contain no added urea-formaldehyde resins. These exterior exposure adhesives form a chemically stable bond that emits such low amounts of formaldehyde gas it is often indistinguishable from background levels. Because these adhesives have long demonstrated very low emission levels, there are no U.S. standards or regulations governing formaldehyde emissions for laminated veneer lumber. California Air Resources Board (CARB) Regulation Section 93120.1 Definition (8) specifically exempts Structural Composite Lumber that is manufactured to the requirements of ASTM D 5456-06. The federal law regarding formaldehyde emissions, which goes into effect in 2013, takes the same stance as CARB and specifically exempts SCL, which includes LVL. LVL is also exempt from the U.S. HUD Manufactured Housing Standard because it is not a plywood or particle board product and is manufactured with a phenolic adhesive system.

GHS Full Text Phrases:

Laminated Veneer Lumber (LVL)**Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
CFR: Code of Federal Regulations (USA)
SARA: Superfund Amendments and Reauthorization Act (USA)
RCRA: Resource Conservation and Recovery Act (USA)
TSCA: Toxic Substances Control Act (USA)
NPRI: National Pollutant Release Inventory (Canada)
DOT: US Department of Transportation

Effective date: 10.24.2014**Last updated:** 05.31.2015