



Safety Data Sheet

LAMCO LFL® Engineered Lumber (all grades)
LAMCO LFL® Engineered Rimboard
LAMFLOOR®

Lamco Forest Products Inc.
 760 chemin de la Moraine
 St-Felicien (Quebec) Canada
 G8K 0A1
<http://www.lamcoewp.com>

LAMCO Emergency Phone : (418) 679-2121 #0
 Additional information : (418) 679-2121 #226
 Date Prepared : August 23, 2017
 Poison Emergency Center (free): 1-877-671-4608

1. Product Identification

Product	Manufacturing Location
LAMCO LFL® Engineered Lumber (all grades) LAMCO LFL® Engineered Rimboard LAMFLOOR®	Canada : St-Felicien, Quebec USA : None

2. Hazardous Ingredients/ Identity Information

Name	CAS#	Percent	Agency	Exposure Limit	Comments
Wood	None	99.4	OSHA	PEL-TWA 15mg/m ³ (Note 1)	Total dust
			OSHA	PEL-TWA 5mg/m ³	Respirable dust fraction
			ACGIH	TLV-TWA 5mg/m ³ STEL(15 min.) 10 mg/m ³	Inhalable fraction, all species except Western Red Cedar
			NIOSH	TWA (<10 hrs) : 1mg/m ³	Recommended Exposure Limit
<u>Purbond HB</u> E032 1-component	101-68-8	0.1	OSHA TWA	0.02 ppm	Metylenebis

polyurethane	9016-87-09	0.05	ACGIH TLV OSHA TWA ACGIH TLV	0.005 ppm 0.02 ppm 0.005 ppm	(phenylisocyanate) Polymeric diphenylmethane diisocyanate
	9016-87-09	0.05	OSHA TWA ACGIH TLV	0.02 ppm 0.005 ppm	Isocyanic acid polymethylenepoly- phenylene ester
<u>Purbond GT 20</u>	None	0.4	OSHA PEL	5 mg/m ³ (respirable fraction) 15 mg/m ³ (total dust)	Limestone
			ACGIH TLV	10mg/m ³ (TWA total dust)	Limestone
<u>Purbond GT 205</u>	101-68-8	0.036	OSHA TWA ACGIH TLV	0.02 ppm 0.005 ppm	Methylenebis (phenylisocyanate)
	9016-87-09	0.018	OSHA TWA ACGIH TLV	0.02 ppm 0.005 ppm	Polymeric diphenylmethane diisocyanate
	26447-40-5	0.006	None	None	Methylene biphenyl isocyanate
Sealer	None	0.005- 0.01	None	None	Aqueous latex paint

Note 1 : Wood dust is regulated by OSHA as ‘‘Particulate Not Otherwise Regulated’’ (PNOR) or Nuisance Dust. However some States have incorporated the 1989 OSHA PEL’s in their plans (Note: Court has overturned OSHA’s 1989 Air Contaminants Rule in 1992, including PEL’s for wood dust. The 1989 vacated PEL’s were: 5mg/m³ STEL (15 min.) – 10 mg/m³ PEL-TWA (for softwood and hardwood).

3. Hazard Information

Appearance and odor :

LAMCO products consist of an amalgam of solid wood glued on the edge and then finger jointed. The wood components of the product are black spruce, red spruce, white spruce, jack pine, balsam fir and/or eastern larch. Total glue of 0.57% per solid content.

Emergency Overview :

Cutting (manual or mechanical) and/or abrasion processes on LAMCO products result in generation of wood dust.

Routes of Entry :

Inhalation and contact of wood dust with skin and eyes.

Medical Conditions Generally Aggravated by Exposure :

Pre-existing respiratory conditions or allergies may be aggravated by wood dust.

Potential Chronic Health Effects :

Wood dust can cause eye irritation and can induce allergic contact dermatitis in sensitive individuals.

Potential Chronic Health Hazards :

Prolonged, repetitive contact or exposure to high wood dust levels may result in allergic contact dermatitis or respiratory sensitization. Prolonged exposure or inhalation of wood dust has been reported to cause nasal cancer.

Carcinogenic Listing :

NTP :	- Wood dust :	carcinogenic to human
	- Glues :	non carcinogenic
IARC (Group 1) :	- Wood dust :	carcinogenic to human
	- Glues :	non carcinogenic
OSHA :	- Glues :	non carcinogenic

4. First Aid Measures :

Eye Contact :

Wood dust may cause mechanical irritation. In case of contact, flush eyes immediately with plenty of water for at least 15 minutes, hold lids apart to ensure flushing of each entire eye. Get medical attention if irritation persists.

Skin Contact :

Some species of wood dust may induce allergic contact dermatitis on sensitized individuals, as well as mechanical irritation resulting in erythema and hives. In case of contact, flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and footwear. Get medical attention if irritation persists or if dermatitis occurs. Wash clothing before reuse.

Inhalation :

Wood dust may cause obstruction of nasal passages, resulting in dryness of nose, dry cough, sneezing and headaches. Remove individual to fresh air. Get medical attention if irritation persists or if severe coughing or breathing difficulty occurs.

Ingestion : Not likely to occur.

Note to physician :

Respiratory ailments and preexisting skin conditions may be aggravated by exposure to wood dust.

5. Fire and Explosion Data :

<u>Flammability of the Product :</u>	FLAMMABLE
<u>Auto-ignition temperature :</u>	204° - 260° C (400° - 500° F)
<u>Flash Point :</u>	NAP
<u>Flammable Limits :</u>	LFL : See below : ‘‘Unusual Fire and Explosion Hazards’’ UFL : NAP
<u>Extinguishing Media :</u>	Water, carbon dioxide, dry sand or earth

Unusual Fire and Explosion Hazards :

Depending on moisture content and particle diameter (more important), wood dust may explode in the presence of an ignition source (heat, flame, spark, static discharge...) **Dust explosion is strongly possible if dust concentration rises above critic value of 40 grams/m³ (LFL).** Wood dust may also explode when in contact with strong acids or oxidants.

Products of Combustion :

Burning of wood products produces irritating and toxic emissions, including carbon oxides, aldehydes and organic acids.

Burning of cured glue produces carbon oxides, isocyanate vapors, oxide nitrogen, oxide of sulfur, hydrogen cyanide.

6. Accidental Release Measures :

Not applicable to LAMCO products in their purchased form. Sweep or vacuum wood dust generated by sawing, sanding, drilling or routing operations. Remove ignition source and provide good ventilation where dust conditions may occur. Place recovered wood dust in a container for proper disposal. Use approved respirator and goggles where ventilation is not possible.

7. Handling and Storage :

No special precaution required for handling and storage of this product.

Avoid prolonged breathing of wood dust.

Keep away from ignition source and open flame.

8. Exposure Controls and Personal Protection :

Personal Protective Equipment :

- Eye Protection : - Not applicable to LAMCO products in their purchased form.
 - AVOID CONTACT OF DUST WITH EYES.
 - When machining, use safety glasses with side shields or dust resistant safety goggles (in Canada, for more details, refer to CSA Standard Z94.3 – M88 “Industrial Eye and Face Protection”).

- Body Protection : - Not applicable to LAMCO products in their purchased form.
 - AVOID CONTACT OF DUST WITH SKIN.
 - Wear coverall.
 - Remove and wash dust contaminated clothing before reuse.

- Respiratory Protection : - Not applicable to LAMCO products in their purchased form.
 - Use NIOSH approved filtering face piece respirator when exposure limits may be exceeded. In Canada, adopt a comprehensive safety program as per CSA Standard Z94.4 – M1984.

- Protection Gloves : - Not required. However use of cloth, canvas or leather gloves is recommended to minimize potential splinters or mechanical irritation.
- Work / Hygiene Practices : - Cleanup work areas where dust accumulates. Minimize blow down or other practices that generate high airborne dust concentration.

- Ventilation : Provide local exhaust as needed so that exposure limits are met.

9. Physical / Chemical Properties :

Physical State and Appearance :

An assembling of solid short wood pieces, glued on the edge and finger jointed with a slight aromatic odor. Wood components of the product consist of black spruce, red spruce, white spruce, jack pine, balsam fir and/or eastern larch.

Chemical Properties :

- Molecular formula :	NAP
- Molecular weight :	NAP
- PH :	NAP
- Boiling/ condensation point :	NAP
- Melting/ freezing point :	NAP
- Critical temperature :	NAP
- Specific gravity :	Variable, depends on wood species
- Vapor pressure :	NAP
- Vapor density :	NAP
- Odor threshold :	NAV
- Evaporation rate :	NAV
- Water/Oil distribution coefficient :	NAP
- Viscosity, % volatile/ vol. @ 21°C :	0
- Solubility in water :	Insoluble in cold / hot water

10. Stability and Reactivity :

Stability and reactivity : This product is stable.

Conditions to avoid : Avoid open flame. Product may ignite at temperatures exceeding 204°C (400°F).

Incompatibility with Various Substances : Wood can ignite if in contact with oxidizing agents.

Hazardous Decomposition Products : Thermal decomposition products include carbon oxides, aldehydes, organic acids and aromatic hydrocarbons.

Hazardous Polymerization : Will not occur.

Sensitivity to Mechanical Impact : NAP

Sensitivity to Static Discharge : NAP

11. Toxicological Informaion :

Routes of Entry : Inhalation and contact with skin and eyes.

Chronic Effects on Human :

- Wood Dust : No test data exists on the actual mixture, but find below data available on wood dust. Exposure to wood dust may cause asthmatic symptoms and signs, nasal dryness, irritation, coughing and sinusitis. Skin contact may cause dermatitis and/or irritation. Eye contact may cause irritation and/or conjunctivitis. Inhalation of wood dust may irritate respiratory tract by causing: drying of the mucus, sneezing, irritating cough, and expectorations. It may cause difficulty in breathing such as: bronchitis, nasal discharge, respiratory tract obstruction. People with existing respiratory tract ailments should avoid exposure to wood dust. OSHA rates wood dust as moderately toxic (3.3) with probable oral lethal dose to humans of 0.5 – 5 gr./ kg. (or 1 pound per 150 pound person).

12. Ecological Information :

Environmental Fate : Biodegradable

Ecotoxicity : NAP for finished product

BDO5 and COD : Depending on species

Product Biodegradation : Depending on species. Unlikely to produce hazardous products in short term degradation. Long term degradation products may arise in extremely small amount due to the presence of isocyanate.

Special Remark on the Environment : Biodegradation of wood may lower oxygen level in water, which may be hazardous to aquatic life.

13. Disposal Considerations :

Waste Disposal Informations : Waste must be disposed of in accordance with federal, state/provincial and local environmental regulations. If disposed of/or discarded in its purchased form, incineration is preferable. Dry land disposal is acceptable in most States and Provinces. It is the user's responsibility to determine at the time of disposal whether the product meets criteria for hazardous waste in its State or Province.

14. Transport Information :

Not regulated as a hazardous material by the DOT (U.S. Department of Transportation) and not listed as a hazardous material in Canadian Transportation of Dangerous Goods (TGD).

15. Regulatory Information :

US Federal Regulations: This product is not controlled under the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Canadian Regulations: This product is not controlled under WHMIS. It has been classified according to the hazard criteria of the Controlled Product Regulation (CPR) and this MSDS contains all the information required by the CPR.

16. Other Information :

Date revised : August 23, 2017

Prepared by : LAMCO Forest Products Inc.

Notice to Reader :

The information and data herein are believed to be accurate and have 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 applicable federal, state/provincial and local laws and regulations. It is the user's responsibility to determine if the product is suitable for its proposed applications and to follow necessary safety precautions. LAMCO Forest Products Inc. makes no warranty of any kind, express or implied, concerning the accuracy or completeness of the information and data herein. LAMCO Forest Products Inc. 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. The user has the responsibility to make sure that this MSDS is the most up-to-date issue.

Definition of Common Terms :

ACGIH	= American Conference of Governmental Industrial Hygienists
B.C.	= British Columbia
BDO5	= Biological Demand Oxygen at 5 days
CAS#	= Chemical Abstracts System Number
COD	= Chemical Oxygen Demand
CSA	= Canadian Standard Association
CPR	= Controlled Product Regulation (Canada)
DOT	= U.S. Department of Transportation
IARC	= International Agency for Research on Cancer
LEL	= Lower Exposure Limit
LFL	= Lower Flammable Limit
NAP	= Not Applicable
NAV	= Not Available
NIOSH	= National Institute for Occupational Safety and Health
NPRI	= National Pollution Release Inventory (Canada)
NTP	= National Toxicology Program
OEL	= Occupational Exposure Limit (Ontario)
OSHA	= Occupational Safety and Health Administration
PEL	= Permissible Exposure Limit
PNOR	= Particle Not Otherwise Regulated (OSHA)
RQMT	= Règlement sur la Qualité du Milieu de Travail (Quebec)
STEL	= Short-Term Exposure Limit (15 minutes)
TDG	= Transportation of Dangerous Goods (Canada)
TLV	= Threshold Limit Value
TWA	= Time-weighted Average (8 hours)
TAWEV	= Time-weighted Average Exposure Value (Ontario)
UFL	= Upper Flammable Limit
VOC	= Volatile Organic Compounds
WHMIS	= Workplace Hazardous Materials Information System (Canada)