Material Safety Data Sheet

Lamwall® and Lamfloor®

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1. Product Identification

Product	Manufacturing Location
Lamwall® Lamfloor®	Canada : St-Felicien, Quebec USA : None

2. Hazardous Ingredients/ Identity Information

Name	CAS#	Percent	Agency	Exposure Limit	Comments
Wood	None	98 - 99	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.) 10mg/m^3	Inhalable fraction, all species except Western Red Cedar
			NIOSH	TWA (<10 heures) : 1mg/ m^3	Recommanded Exposure Limit
			Ontario	OEL-reg 833 (2008) TAWEV 5mg/m^3 STEV 10mg/m^3	Total dust

			B.C. Quebec	BC reg 296-97 (2008) et WCA, Guidelines part5 TLV-TWA 2.5mg/m^3 L .R.Q. c. S-2.1, r.15 (1981,mod.2001) 10mg/m^3	Total dust TWA total
Resin Solids Crosslinking PVAC and Aluminium Chloride Catalyst *(Note 2-3)*	None	0.75-1.25	None	None	Curing of glue in the mill may release small amounts of gazeous formaldehyde, but curing is completed within 24 hours.

Note 1 : Wood dust is regulated by OSHA as ''Particule 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/m^3 STEL (15 min.) – 10 mg/m^3 PEL-TWA (for softwood and hardwood).
Note 2 : The VOC content of adhesives used is equal or less than the current VOC content limits of the South Coast Air Quality Management District (SCAQMD) Rule #1168.
This product is not regulated by the California Air Resources Board's (CARB) Air Toxic Control Measure, being a structural composite lumber meeting the ASTM D-5456 norm.

Note 3 : This product does not contain urea-formaldehyde resins.

3. **Hazard Information**

Appearance and odor :

Lamwall® **and** Lamfloor® products consist of an amalgam of solid short pieces of wood glued on the edge and then finger jointed**.** The wood components of the product are either jack pine, balsam fir and/or eastern larch.

Emergency Overview :

Cutting (manual or mechanical) and/or abrasion processes on Lamwall® **and** Lamfloor® 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
IARC (Group 1) :	-Wood dust :	carcinogenic to human
B.C. (K1) :	-Wood dust :	confirmed carcinogenic to human

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 headhaches. 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 pre-existing skin conditions may be aggravated by exposure to wood dust.

5. Fire and Explosion Data :

Flammability of the Product : FLAMMABLE

Auto-ignition temperature : 204° - 260° C (400° - 500° F)

Flash Point : NAP

Flammable Limits : LFL : See below : ''Unusual Fire and Explosion Hazards''

UFL : NAP

Extinguising Media : Water, carbon dioxyde, dry sand or earth

Unusual Fire and Explosion Hazards :
Depending on moisture content and particule 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/m^3 (LFL). Wood dust may also explode when in contact with strong acids or oxydants.

Product of Combustion :
Burning of wood products produces irritating and toxic emissions, including carbon dioxyde, carbon monoxyde,aldehydes and organic acids.
Burning of cured glue produces carbon dioxyde, carbon monoxyde, aldehydes, particulate matter and organic compounds.

6. Accidental Release Measures :

Not applicable to Lamwall® **and** Lamfloor® products in its 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 recovred wood dust in a container for proper disposal. Use approved respirator and googles 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 Lamwall® and Lamfloor® products in its purchased form.
  - AVOID CONTACT OF DUST WITH EYES.
  - When machining, use safety glasses with side shields or dust resistant safety googles (in Canada, for more details, refer to CSA Standard Z94.3 – M88 ''Industrial Eye and Face Protection'').

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

- Respiratory Protection : - Not applicable to Lamwall® and Lamfloor® products in its purchased Form.
  - Use NIOH approved filtering face piece respirator when exposure limits may be exceeded. In Canada, adopt a comprehensive 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 slives or mechanical irritation.

- Work / Hygiene Practices : - Clean up 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 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 ignate at temperatures exceeding 204°C (400°F).

Incompatibility with Various Sustances : Wood can ignate if in contact with oxydizing agents.

Hazardous Decomposition Products : Thermal decomposition products include carbon monoxyde, carbon dioxyde, aldehydes, organic acids and polynuclear 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 datas available on wood dust. Exposure to wood dust may cause asthmatic symptoms and signs, nasal dryness, irritation, coughing and sinusitis. Skin contact may cause dermatits 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 expectoration. 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 to produce hazardous products in short term degradation.

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 responsibilty 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 Transportsation 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 prepared : February 02, 2009

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 = Particule Not Otherwise Regulated (OSHA)
STEL = Short-Term Exposure Limit (15 minutes)
TDG = Transportation of Dangerous Goods (Canada)
TLV = Threshold Limit Value
TWA = Time-Wheighted 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)