

HPD UNIQUE IDENTIFIER: 152392729600

CLASSIFICATION: 06 11 13 Engineered Wood Products

PRODUCT DESCRIPTION: Laminated Engineered Bamboo lumber and panels used in exterior applications. This product is used exterior decorative applications such as wall coverings, site furnishings, posts, trellis, pergola, planters, and other outdoor items.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format	Threshold Level	Residuals/Impurities Evaluation	<i>For all contents above the threshold, the manufacturer has:</i>
<input type="radio"/> Nested Materials Method	<input type="radio"/> 100 ppm	<input type="radio"/> Completed	Characterized <input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="radio"/> Basic Method	<input type="radio"/> 1,000 ppm	<input type="radio"/> Partially Completed	<i>Provided weight and role.</i>
Threshold Disclosed Per	<input type="radio"/> Per GHS SDS	<input checked="" type="radio"/> Not Completed	Screened <input checked="" type="radio"/> Yes <input type="radio"/> No
<input type="radio"/> Material	<input checked="" type="radio"/> Other	Explanation(s) provided :	<i>Provided screening results using HPDC-approved methods.</i>
<input checked="" type="radio"/> Product		<input checked="" type="radio"/> Yes <input type="radio"/> No	Identified <input type="radio"/> Yes <input checked="" type="radio"/> No
			<i>Provided name and CAS RN or other identifier.</i>

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

PRODUCT | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY
GREENSCREEN SCORE | HAZARD TYPE

LAMBOO® ELEMENTS™ PRODUCTS [UNDISCLOSED LT-UNK | RES
| SKI | EYE | MAM UNDISCLOSED BM-3 | MAM | EYE | PHY
UNDISCLOSED LT-P1 UNDISCLOSED NoGS BAMBOO]

Number of Greenscreen BM-4/BM3 contents ... 1
Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ...
LT-P1
Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Special Conditions applied: [BiologicalMaterial]

Residuals/Impurities in select raw materials are quantitatively measured, and displayed in the HPD when greater than 100 ppm.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: Environmental Product Declaration (EPD) by ASTM
: Environmental Product Declaration (EPD) by ASTM

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared

VERIFIER:
VERIFICATION #:

SCREENING DATE: 2024-02-28

PUBLISHED DATE: 2024-02-28

EXPIRY DATE: 2027-02-28

Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.3, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-3-standard

LAMBOO® ELEMENTS™ PRODUCTS

PRODUCT THRESHOLD: Other

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: No

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered based on supplier SDS. SDS may not identify all Residuals or Impurities present in this Product that would require reporting on the HPD. No Residuals or Impurities are expected to be present at or above Content Inventory Threshold that return a GreenScreen score of BM-1, LT-1, LT-P1 or NoGS.

OTHER PRODUCT NOTES: For more information about the Lamboo® Elements™ products, please visit www.lamboo.us.

BAMBOO

ID: **Biological Material**

HAZARD DATA SOURCE: **HPDC Special Conditions Policy**

%: **98.0000 - 99.0000** GreenScreen: **Not Required** RC: **None** NANO: **No** MATERIAL ROLE: **Biological material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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Hazard Screening is not applicable to this Special Condition

BIOLOGICAL MATERIALS CATEGORY: Plant-based materials

INGREDIENT DESCRIPTION: Phyllostachys edulis

MATERIAL CONTENT NOTES: Moso (Phyllostachys edulis) Bamboo is a rapidly growing plant-based material that has been used in building applications for hundreds of years. This material is the primary material used in Lamboo engineered products.

This disclosure does not provide information on allergens, hyper-accumulation of metals, production of any toxic substances during normal metabolic activities, pesticides, and other potential hazards or sources of hazards which may be found in certain biological materials.

UNDISCLOSED

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2024-02-28 12:23:12**

%: **0.5000 - 0.9000** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Coating**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
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RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
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SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
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EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
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MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]
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SKI	GHS - New Zealand	Skin irritation category 2
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
EYE	GHS - Japan	H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]
SKI	GHS - Japan	H314 - Causes severe skin burns and eye damage [Skin corrosion / irritation - Category 1]
SKI	GHS - Australia	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
SKI	GHS - New Zealand	Skin sensitisation category 1
EYE	GHS - Korea	H319 - Causes serious eye irritation [Serious eye damage/irritation - Category 2]
SKI	GHS - Korea	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
SKI	GHS - Malaysia	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
MAM	GHS - Korea	H311 - Toxic in contact with skin [Acute toxicity (dermal) - Category 3]
MAM	Québec CSST - WHMIS 1988	Class D1A - Very toxic material causing immediate and serious toxic effects
MAM	GHS - Japan	H311 - Toxic in contact with skin [Acute Toxicity (dermal) - Category 3]
MAM	GHS - Malaysia	H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]
MAM	GHS - New Zealand	Acute dermal toxicity category 3
MAM	GHS - Korea	H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 2]
MAM	GHS - Australia	H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2]
EYE	GHS - Malaysia	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
RES	GHS - Japan	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled [Respiratory sensitization - Category 1A]
MAM	GHS - Korea	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
MAM	GHS - New Zealand	Acute inhalation toxicity category 1

MAM	GHS - Japan	H330 - Fatal if inhaled [Acute toxicity (inhalation: vapor) - Category 1]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP11)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Formulated Consumer Products
SUBSTANCE NOTES: Used in top coat system for protection of bamboo materials in exterior applications.		

UNDISCLOSED

ID: **Undisclosed**

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2024-02-28 12:25:57		
%: 0.2000 - 0.5000	GreenScreen: BM-3	RC: UNK	NANO: No	SUBSTANCE ROLE: Accelerator
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]		
EYE	GHS - New Zealand	Eye irritation category 2		
PHY	GHS - New Zealand	Flammable liquids category 2		
PHY	GHS - Japan	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents		
SUBSTANCE NOTES: Used in topcoat system on bamboo used in exterior applications.				

UNDISCLOSED

ID: **Undisclosed**

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2024-02-28 12:47:42		
%: 0.2000 - 0.4000	GreenScreen: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Adhesive
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
None found		No listings found on Additional Hazard Lists		

SUBSTANCE NOTES: Adhesive used to glue together bamboo slats.

UNDISCLOSED

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2024-02-28 12:29:09**

#: **0.0100 - 0.0500**

GreenScreen: **NoGS**

RC: **UNK**

NANO: **No**

SUBSTANCE ROLE: **Activator**

HAZARD TYPE

LIST NAME AND SOURCE

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS

LIST NAME AND SOURCE

NOTIFICATION

None found

No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Used in topcoat system to protect bamboo in exterior applications.

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS	Environmental Product Declaration (EPD) by ASTM	
CERTIFYING PARTY: Third Party	ISSUE DATE: 2023-01-16 00:00:00	CERTIFIER OR LAB: The International EPD® System
APPLICABLE FACILITIES: ALL	EXPIRY DATE: 2028-01-16 00:00:00	
CERTIFICATE URL:		
CERTIFICATION AND COMPLIANCE NOTES: EPD has been verified and certified by The International EPD System.		

BIOBASED CONTENT	Environmental Product Declaration (EPD) by ASTM	
CERTIFYING PARTY: Third Party	ISSUE DATE: 2023-01-16 00:00:00	CERTIFIER OR LAB: The International EPD® System
APPLICABLE FACILITIES: All	EXPIRY DATE: 2028-01-16 00:00:00	
CERTIFICATE URL:		
CERTIFICATION AND COMPLIANCE NOTES: EPD has been verified and certified by The International EPD System.		

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

Section 5: General Notes

This HPD is provided solely for the intended recipient in connection with its assessment of products and for no other purpose. In providing information, Lamboo expresses no opinion and makes no representations as to the applicability, suitability, accuracy, or completeness of the declaration form, or the standards, rules, classifications, warnings, or criteria utilized or referenced therein. Please refer to Lamboo's website for more information on this product - <https://www.lamboo.us/resourcelibrary>

MANUFACTURER INFORMATION

MANUFACTURER: **Lamboo Technologies, LLC**
 ADDRESS: **301 West Edwards Street**
Litchfield, Illinois 62056
 COUNTRY: **United States**

WEBSITE: **www.lamboo.us**
 CONTACT NAME: **Jeran Hammann**
 TITLE: **Executive Vice President**
 PHONE: **866-966-2999**
 EMAIL: **jeran@lamboo.us**

The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

KEY

Hazard Types

AQU Aquatic toxicity	LAN Land toxicity	PHY Physical hazard (flammable or reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive
DEV Developmental toxicity	MUL Multiple	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	NF Not found on Priority Hazard Lists	UNK Unknown
GEN Gene mutation	OZO Ozone depletion	
GLO Global warming	PBT Persistent, bioaccumulative, and toxic	

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible 1 (Possible Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS No GreenScreen.
BM-U Benchmark Unspecified (due to insufficient data)	

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, www.greenscreenchemicals.org, and Best Practices for Hazard Screening on the HPDC website (hpd-collaborative.org).

Recycled Types

PreC Pre-consumer recycled content
PostC Post-consumer recycled content
UNK Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms:

GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material
Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and

