

HPD UNIQUE IDENTIFIER: 22381

CLASSIFICATION: 03 62 13 Non-Metallic Non-Shrink Grouting

PRODUCT DESCRIPTION: L&M™ CRYSTEX™ is a high-strength, highly fluid, non-shrink, non-metallic, controlled expansion structural grout with superior dynamic load stability. Provides for long working time, easy placement and can be mixed to a wide range of consistencies.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

<p>Inventory Reporting Format</p> <p><input type="radio"/> Nested Materials Method</p> <p><input checked="" type="radio"/> Basic Method</p>	<p>Threshold level</p> <p><input checked="" type="radio"/> 100 ppm</p> <p><input type="radio"/> 1,000 ppm</p> <p><input type="radio"/> Per GHS SDS</p> <p><input type="radio"/> Other</p>	<p>Residuals/Impurities</p> <p><input checked="" type="radio"/> Considered</p> <p><input type="radio"/> Partially Considered</p> <p><input type="radio"/> Not Considered</p>	<p><i>All Substances Above the Threshold Indicated Are:</i></p> <p>Characterized <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>% weight and role provided for all substances.</i></p>
<p>Threshold Disclosed Per</p> <p><input type="radio"/> Material</p> <p><input checked="" type="radio"/> Product</p>	<p>Explanation(s) provided for Residuals/Impurities?</p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>	<p>Screened <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>All substances screened using Priority Hazard Lists with results disclosed.</i></p>	<p>Identified <input type="radio"/> Yes Ex/SC <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p><i>One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.</i></p>

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.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY

GREENSCREEN SCORE | HAZARD TYPE

L&M™ CRYSTEX™ | QUARTZ LT-1 | CAN PORTLAND CEMENT LT-P1
 | CAN | END UNDISCLOSED LT-1 | CAN | MUL UNDISCLOSED BM-1 |
 END | PHY | RES UNDISCLOSED NoGS UNDISCLOSED LT-UNK
 UNDISCLOSED BM-1 | CAN UNDISCLOSED LT-UNK UNDISCLOSED
 NoGS UNDISCLOSED BM-3 UNDISCLOSED BM-1 | END | MUL | CAN
 CALCIUM CARBONATE BM-3 LIMESTONE; CALCIUM CARBONATE LT-
 UNK]

Number of Greenscreen BM-4/BM3 contents ... 2

Contents highest concern GreenScreen Benchmark or List translator Score ... BM-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This HPD was created with Basic Inventory. Materials listed as Undisclosed in Section 2 is done to preserve integrity of formula and maintain competitive advantage. The component CAS# was used to identify associated hazards of these components.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

Material (g/l): 0.00 Regulatory (g/l): N/A

Does the product contain exempt VOCs: No

Are ultra-low VOC tints available: N/A

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: N/A

VOC content: TDS 251 "Low VOC LATICRETE Products"

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared

VERIFIER:
VERIFICATION #:

SCREENING DATE: 2020-10-09

PUBLISHED DATE: 2020-10-09

EXPIRY DATE: 2023-10-09

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 2.2, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-2-standard

L&M™ CRYSTEX™

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are measured by quantitative methods and are only displayed when they are potentially greater than 100 ppm.

OTHER PRODUCT NOTES: See SDS at www.laticrete.com for occupational exposure information.

QUARTZ

ID: 14808-60-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-10-09

#: 55.0000 - 60.0000 GS: LT-1 RC: None NANO: No SUBSTANCE ROLE: Filler

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	US NIH - Report on Carcinogens	Known to be Human Carcinogen (respirable size - occupational setting)
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CANCER	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	GHS - New Zealand	6.7A - Known or presumed human carcinogens
CANCER	GHS - Japan	Carcinogenicity - Category 1A [H350]
CANCER	GHS - Australia	H350i - May cause cancer by inhalation

SUBSTANCE NOTES: The amount of this component may vary based on the plant of manufacture.

PORTLAND CEMENT

ID: 65997-15-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-10-09

#: 40.0000 - 45.0000 GS: LT-P1 RC: None NANO: No SUBSTANCE ROLE: Binder

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES: The amount of this component may vary based on the plant of manufacture.

UNDISCLOSED

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-10-09		
%: 0.2000 - 0.3000	GS: LT-1	RC: None	NANO: No	SUBSTANCE ROLE: Plasticizer
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
CANCER	EU - REACH Annex XVII CMRs	Carcinogen Category 1 - Substances known to be Carcinogenic to man		
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant		
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man		
CANCER	GHS - Australia	H350 - May cause cancer		
CANCER	CA EPA - Prop 65	Carcinogen		

SUBSTANCE NOTES: The amount of this component may vary based on the plant of manufacture. This product is shown as undisclosed to preserve integrity of formula and maintain competitive advantage. The component CAS# was used to identify associated hazards.

UNDISCLOSED

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-10-09		
%: 0.0600 - 0.0700	GS: BM-1	RC: None	NANO: No	SUBSTANCE ROLE: Viscosity modifier
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor		
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air		
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H261 - In contact with water releases flammable gases		
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced		

SUBSTANCE NOTES: The amount of this component may vary based on the plant of manufacture. This product is shown as undisclosed to preserve integrity of formula and maintain competitive advantage. The component CAS# was used to identify associated hazards.

UNDISCLOSED

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-10-09		
%: 0.0500 - 0.1000	GS: NoGS	RC: None	NANO: No	SUBSTANCE ROLE: Viscosity modifier
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		

SUBSTANCE NOTES: The amount of this component may vary based on the plant of manufacture. This product is shown as undisclosed to preserve integrity of formula and maintain competitive advantage. The component CAS# was used to identify associated hazards.

UNDISCLOSED

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-10-09		
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%: 0.0300 - 0.0400

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Processing regulator

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: The amount of this component may vary based on the plant of manufacture. This product is shown as undisclosed to preserve integrity of formula and maintain competitive advantage. The component CAS# was used to identify associated hazards.

UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-10-09**

%: 0.0200 - 0.0300

GS: BM-1

RC: None

NANO: No

SUBSTANCE ROLE: Defoamer

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
CANCER	IARC	Group 2b - Possibly carcinogenic to humans

SUBSTANCE NOTES: The amount of this component may vary based on the plant of manufacture. This product is shown as undisclosed to preserve integrity of formula and maintain competitive advantage. The component CAS# was used to identify associated hazards.

UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-10-09**

%: 0.0100 - 0.0200

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Defoamer

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: The amount of this component may vary based on the plant of manufacture. This product is shown as undisclosed to preserve integrity of formula and maintain competitive advantage. The component CAS# was used to identify associated hazards.

UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-10-09**

%: 0.0050 - 0.0100

GS: NoGS

RC: None

NANO: No

SUBSTANCE ROLE: Viscosity modifier

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: The amount of this component may vary based on the plant of manufacture. This product is shown as undisclosed to preserve integrity of formula and maintain competitive advantage. The component CAS# was used to identify associated hazards.

UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-10-09**

%: 0.0010 - 0.0020

GS: BM-3

RC: None

NANO: No

SUBSTANCE ROLE: Filler

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: The amount of this component may vary based on the plant of manufacture. This product is shown as undisclosed to preserve integrity of formula and maintain competitive advantage. The component CAS# was used to identify associated hazards.

UNDISCLOSED

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library	HAZARD SCREENING DATE: 2020-10-09
%: 0.0002 - 0.0005	GS: BM-1 RC: None NANO: No SUBSTANCE ROLE: Plasticizer

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	ChemSec - SIN List	Endocrine Disruption
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SUBSTANCE NOTES: The amount of this component may vary based on the plant of manufacture. This product is shown as undisclosed to preserve integrity of formula and maintain competitive advantage. The component CAS# was used to identify associated hazards.

CALCIUM CARBONATE

ID: 471-34-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library	HAZARD SCREENING DATE: 2020-10-09
%: Impurity/Residual	GS: BM-3 RC: None NANO: No SUBSTANCE ROLE: Impurity/Residual

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: This substance is an impurity or residual. This impurity/residual may or may not be present based on the source of the raw material and/or be less than 100ppm.

LIMESTONE; CALCIUM CARBONATE

ID: 1317-65-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library	HAZARD SCREENING DATE: 2020-10-09
%: Impurity/Residual	GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Impurity/Residual

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: This substance is an impurity or residual. This impurity/residual may or may not be present based on the source of the raw material and/or be less than 100ppm.

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	N/A		
CERTIFYING PARTY: Self-declared	ISSUE DATE: 2020-10-	EXPIRY DATE:	CERTIFIER OR LAB: LATICRETE
APPLICABLE FACILITIES: Applies to All Facilities.	09		
CERTIFICATE URL:			
CERTIFICATION AND COMPLIANCE NOTES: L&M™ CRYSTEX™ has not been tested for VOC emissions.			

VOC CONTENT	TDS 251 "Low VOC LATICRETE Products"		
CERTIFYING PARTY: Self-declared	ISSUE DATE: 2020-08-	EXPIRY DATE:	CERTIFIER OR LAB: LATICRETE
APPLICABLE FACILITIES: Applies to All Facilities	12		Lab
CERTIFICATE URL:			
https://cdn.laticrete.com/~/-/media/support-and-downloads/technical-datasheets/tds251.ashx			
CERTIFICATION AND COMPLIANCE NOTES: There are no guidelines for maximum VOC content for structural grout materials in LEED v4.1. Please take note of the VOC content as stated in Section 1: VOLATILE ORGANIC COMPOUND (VOC) CONTENT.			

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.

WATER	HPD URL: No HPD Available
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:	
L&M CRYSTEX to be mixed with water only following mix ratios and directions as stated on product data sheet.	

Section 5: General Notes

L&M™ CRYSTEX™ meets the Living Building Challenge v4.0 requirement that the product does not contain any of the Red Listed Materials or Chemicals. Specifically, L&M CRYSTEX does not contain the following: Antimicrobials (marketed with a health claim) •Alkylphenols and related compounds •Asbestos •Bisphenol A (BPA) and structural analogues •California Banned Solvents •Chlorinated Polymers, including Chlorinated polyethylene (CPE), Chlorinated Polyvinyl Chloride (CPVC), Chloroprene (neoprene monomer), Chlorosulfonated polyethylene (CSPE), Polyvinylidene chloride (PVDC), and Polyvinyl Chloride (PVC) •Chlorobenzenes •Chlorofluorocarbons (CFCs) & Hydrochlorofluorocarbons (HCFCs) •Formaldehyde (added) • Monomeric, polymeric and organo-phosphate halogenated flame retardants (HFRs) •Organotin Compounds •Perfluorinated Compounds (PFCs) •Phthalates (orthophthalates) •Polychlorinated Biphenyls (PCBs) •Polycyclic Aromatic Hydrocarbons (PAH) •Short-Chain and Medium-Chain Chlorinated Paraffins •Toxic Heavy Metals - Arsenic, Cadmium, Chromium, Lead (added), and Mercury •Wood treatments containing Creosote, Arsenic or Pentachlorophenol. See Section 1 for Volatile Organic Compounds (VOC) (wet applied products) information.

MANUFACTURER INFORMATION

MANUFACTURER: LATICRETE International
ADDRESS: 1 Laticrete Park North
 Bethany CT 06524, USA
WEBSITE: <https://laticrete.com>

CONTACT NAME: Mitch Hawkins
TITLE: Senior Manager, Technical Services
PHONE: 203-393-4619
EMAIL: wmhawkins@laticrete.com

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-1 List Translator 1 (Likely Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the information contained within the list did not result in a clear mapping to a LT-1 or LTP1 score.)
BM-2 Benchmark 2 (use but search for safer substitutes)	NoGS No GreenScreen.
BM-1 Benchmark 1 (avoid - chemical of high concern)	
BM-U Benchmark Unspecified (due to insufficient data)	
LT-P1 List Translator Possible 1 (Possible Benchmark-1)	

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 for compliance with the HPD standard noted.