L&M™ CRYSTEX™
by LATICRETE International

CLASSIFICATION: 03 62 13

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

Inventory Reporting Format
- Nested Materials Method
- Basic Method

Threshold Disclosed Per
- Material
- Product

Threshold level
- 100 ppm
- 1,000 ppm
- Per GHS SDS
- Per OSHA MSDS
- Other

Residuals/Impurities
- Considered
- Partially Considered
- Not Considered

All Substances Above the Threshold Indicated Are:

Characterized
- Yes Ex/SC
- Yes
- No

% weight and role not provided for all substances and/or one or more Special Condition did not follow guidance.

Screened
- Yes Ex/SC
- Yes
- No

All substances screened using Priority Hazard Lists with results disclosed.

Identified
- Yes Ex/SC
- Yes
- No

One or more substances not disclosed by Name (Specific or Generic) and Identifier and/or one or more Special Condition did not follow guidance.

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-3 | END | MUL | CAN CALCIUM CARBONATE BM-2 | BM-2 LIMESTONE; CALCIUM CARBONATE LT-UNK | NoGS ]

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

No pre-checks completed or disclosed.

PREPARATOR: Self-Prepared
VERIFIER:
VERIFICATION #: 
SCREENING DATE: 2020-03-16
PUBLISHED DATE: 2020-05-11
EXPIRY DATE: 2023-03-16
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 2.1.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-1-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: 2020-03-16
%
55.00 - 60.00
GS: LT-1
RC: None
NANO: No
ROLE: Aggregate

HAZARD TYPE

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

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: 2020-03-16
%
40.00 - 45.00
GS: LT-P1
RC: None
NANO: No
ROLE: Binder

HAZARD TYPE

<table>
<thead>
<tr>
<th>AGENCY AND LIST TITLES</th>
<th>WARNINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS - New Zealand</td>
<td>6.7A - Known or presumed human carcinogens</td>
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<td>GHS - Japan</td>
<td>Carcinogenicity - Category 1A [H350]</td>
</tr>
<tr>
<td>GHS - Australia</td>
<td>H350i - May cause cancer by inhalation</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Agency and List Titles</th>
<th>WARNINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANCER</td>
<td>Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification</td>
</tr>
<tr>
<td>ENDOCRINE</td>
<td>Potential Endocrine Disruptor</td>
</tr>
</tbody>
</table>

**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:** 2020-03-16

<table>
<thead>
<tr>
<th>%: 0.20 - 0.30</th>
<th>GS: LT-1</th>
<th>RO: None</th>
<th>NANO: No</th>
<th>ROLE: Water Reducer</th>
</tr>
</thead>
</table>

**HAZARD TYPE** | **AGENCY AND LIST TITLES** | **WARNINGS** |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CANCER</td>
<td>CA EPA - Prop 65</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>CANCER</td>
<td>EU - REACH Annex XVII CMRs</td>
<td>Carcinogen Category 1 - Substances known to be Carcinogenic to man</td>
</tr>
<tr>
<td>MULTIPLE</td>
<td>ChemSec - SIN List</td>
<td>CMR - Carcinogen, Mutagen &amp;/or Reproductive Toxicant</td>
</tr>
<tr>
<td>CANCER</td>
<td>MAK</td>
<td>Carcinogen Group 1 - Substances that cause cancer in man</td>
</tr>
<tr>
<td>CANCER</td>
<td>GHS - Australia</td>
<td>H350 - May cause cancer</td>
</tr>
</tbody>
</table>

**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:** 2020-03-16

<table>
<thead>
<tr>
<th>%: 0.06 - 0.07</th>
<th>GS: BM-1</th>
<th>RO: None</th>
<th>NANO: No</th>
<th>ROLE: Rheology Modifier</th>
</tr>
</thead>
</table>

**HAZARD TYPE** | **AGENCY AND LIST TITLES** | **WARNINGS** |
<table>
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<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENDOCRINE</td>
<td>TEDX - Potential Endocrine Disruptors</td>
<td>Potential Endocrine Disruptor</td>
</tr>
<tr>
<td>PHYSICAL HAZARD (REACTIVE)</td>
<td>EU - GHS (H-Statements)</td>
<td>H250 - Catches fire spontaneously if exposed to air</td>
</tr>
<tr>
<td>PHYSICAL HAZARD (REACTIVE)</td>
<td>EU - GHS (H-Statements)</td>
<td>H261 - In contact with water releases flammable gases</td>
</tr>
<tr>
<td>RESPIRATORY</td>
<td>AOEC - Asthmagens</td>
<td>Asthmagen (Rs) - sensitizer-induced</td>
</tr>
</tbody>
</table>

**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
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<table>
<thead>
<tr>
<th>Substance Notes</th>
<th>Role</th>
<th>CAS# Used</th>
<th>Associated Hazards</th>
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<td>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.</td>
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<td>MAK</td>
<td>Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification</td>
<td></td>
</tr>
<tr>
<td><strong>CANCER</strong></td>
<td>IARC</td>
<td>Group 2b - Possibly carcinogenic to humans</td>
<td></td>
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</tbody>
</table>

### UNDISCLOSED

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</tr>
<tr>
<td><strong>CANCER</strong></td>
<td>IARC</td>
<td>Group 2b - Possibly carcinogenic to humans</td>
<td></td>
</tr>
<tr>
<td>Component</td>
<td>HAZARD SCREENING METHOD: Pharos Chemical and Materials Library</td>
<td>HAZARD SCREENING DATE: 2020-03-16</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------------</td>
<td>-------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Rheology Modifier</td>
<td>%: 0.01 - 0.01 GS: NoGS RC: None NANO: No ROLE: Rheology Modifier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filler</td>
<td>%: 0.00 GS: BM-3 RC: None NANO: No ROLE: Filler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Reducer</td>
<td>%: 0.00 GS: BM-1 RC: None NANO: No ROLE: Water Reducer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>%: Impurity/Residual GS: BM-3 RC: None NANO: No ROLE: Impurity/Residual</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**UNDISCLOSED 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**

<table>
<thead>
<tr>
<th>Component</th>
<th>HAZARD SCREENING METHOD: Pharos Chemical and Materials Library</th>
<th>HAZARD SCREENING DATE: 2020-03-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate</td>
<td>%: Impurity/Residual GS: BM-3 RC: None NANO: No ROLE: Impurity/Residual</td>
<td></td>
</tr>
</tbody>
</table>

**CALCIUM CARBONATE ID:** 471-34-1

**HAZARD TYPE AGENCY AND LIST TITLES WARNINGS**

- **ENDOCRINE**
  - ChemSec - SIN List: Endocrine Disruption
  - 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
### LIMESTONE; CALCIUM CARBONATE

**ID:** 1317-65-3

<table>
<thead>
<tr>
<th>HAZARD TYPE</th>
<th>AGENCY AND LIST TITLES</th>
<th>WARNINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>None found</td>
<td></td>
<td>No warnings found on HPD Priority Hazard Lists</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>HAZARD SCREENING METHOD: Pharos Chemical and Materials Library</th>
<th>HAZARD SCREENING DATE: 2020-03-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>%: Impurity/Residual</td>
<td>GS: LT-UNK</td>
</tr>
<tr>
<td>RC: None</td>
<td>NANO: No</td>
</tr>
<tr>
<td>ROLE: Impurity/Residual</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>CERTIFYING PARTY</th>
<th>ISSUE DATE</th>
<th>CERTIFIER OR LAB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-declared</td>
<td>2019-12-19</td>
<td>LATICRETE</td>
</tr>
</tbody>
</table>

**APPLICABLE FACILITIES:** Applies to All Facilities.

**CERTIFICATE URL:** N/A

**EXPIRY DATE:** N/A

**CERTIFICATION AND COMPLIANCE NOTES:** L&M™ CRYSTEX™ has not been tested for VOC emissions.

### VOC CONTENT

<table>
<thead>
<tr>
<th>CERTIFYING PARTY</th>
<th>ISSUE DATE</th>
<th>CERTIFIER OR LAB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-declared</td>
<td>2019-01-18</td>
<td>LATICRETE</td>
</tr>
</tbody>
</table>

**APPLICABLE FACILITIES:** Applies to All Facilities

**CERTIFICATE URL:** https://cdn.laticrete.com/~/media/support-and-downloads/technical-datasheets/tds251.ashx

**EXPIRY DATE:** N/A

**CERTIFICATION AND COMPLIANCE NOTES:** TDS 251 "Low VOC LATICRETE Products"

There are no guidelines for maximum VOC content for structural grout materials in LEED v4. 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

KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet
GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

- AQU Aquatic toxicity
- CAN Cancer
- DEV Developmental toxicity
- END Endocrine activity
- EYE Eye irritation/corrosivity
- GEN Gene mutation
- GLO Global warming
- MAM Mammalian/systemic/organ toxicity
- MUL Multiple hazards
- NEU Neurotoxicity
- OZO Ozone depletion
- PBT Persistent Bioaccumulative Toxic
- PHY Physical Hazard (reactive)
- REP Reproductive toxicity
- RES Respiratory sensitization
- SKI Skin sensitization/irritation/corrosivity
- LAN Land Toxicity
- NF Not found on Priority Hazard Lists

GreenScreen (GS)

- BM-4 Benchmark 4 (prefer-safer chemical)
- BM-3 Benchmark 3 (use but still opportunity for improvement)
- BM-2 Benchmark 2 (use but search for safer substitutes)
- BM-1 Benchmark 1 (avoid - chemical of high concern)
- BM-U Benchmark Unspecified (insufficient data to benchmark)

LT-P1 List Translator Possible Benchmark 1
LT-1 List Translator Likely Benchmark 1
LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
NoGS Unknown (no data on List Translator Lists)

Recycled Types

- PreC Preconsumer (Post-Industrial)
- PostC Postconsumer
- Both Both Preconsumer and Postconsumer
- Unk Inclusion of recycled content is unknown
- None Does not include recycled content

Other Terms

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.