

HPD UNIQUE IDENTIFIER: 22581

CLASSIFICATION: 04 22 23 Architectural Concrete Unit Masonry

PRODUCT DESCRIPTION: This HPD covers Permacon's Lightweight Block with and without glass powder. More specifically this HPD concerns Lightweight Blocks made at Permacon's Milton plant.

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

<p><b>Inventory Reporting Format</b></p> <p><input checked="" type="radio"/> Nested Materials Method</p> <p><input type="radio"/> Basic Method</p> <p><b>Threshold Disclosed Per</b></p> <p><input type="radio"/> Material</p> <p><input checked="" type="radio"/> Product</p>	<p><b>Threshold level</b></p> <p><input type="radio"/> 100 ppm</p> <p><input checked="" type="radio"/> 1,000 ppm</p> <p><input type="radio"/> Per GHS SDS</p> <p><input type="radio"/> Other</p>	<p><b>Residuals/Impurities</b></p> <p>Residuals/Impurities Considered in 4 of 5 Materials</p> <p><b>Explanation(s) provided for Residuals/Impurities?</b></p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>	<p><i>All Substances Above the Threshold Indicated Are:</i></p> <p><b>Characterized</b> <input checked="" type="radio"/> Yes Ex/SC <input type="radio"/> Yes <input type="radio"/> No</p> <p><i>% weight and role provided for all substances except SC substances characterized according to SC guidance.</i></p> <p><b>Screened</b> <input checked="" type="radio"/> Yes Ex/SC <input type="radio"/> Yes <input type="radio"/> No</p> <p><i>All substances screened using Priority Hazard Lists with results disclosed except SC substances screened according to SC guidance.</i></p> <p><b>Identified</b> <input checked="" type="radio"/> Yes Ex/SC <input type="radio"/> Yes <input type="radio"/> No</p> <p><i>All substances disclosed by Name (Specific or Generic) and Identifier except SC substances identified according to SC guidance.</i></p>
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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**

AGGREGATES [ BLAST FURNACE SLAG LT-UNK SC:LIMESTONE Not Screened ] PORTLAND LIMESTONE CEMENT [ PORTLAND CEMENT LT-P1 | END | CAN QUARTZ LT-1 | CAN CALCIUM OXIDE LT-P1 LIMESTONE LT-UNK PHOSPHOGYPSUM LT-UNK ] GLASS POWDER [ GLASS / MINERAL FIBER (POST-CONSUMER RECYCLED) LT-UNK ] SLAG CEMENT [ BLAST FURNACE SLAG LT-UNK QUARTZ LT-1 | CAN ] ADMIXTURE [ POLYETHYLENE GLYCOL MONO(BRANCHED P-NONYLPHENYL) ETHER BM-1tp | END | MUL | REP | AQU | DEV ]

Number of Greenscreen BM-4/BM3 contents ... 0

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Special conditions applied: GeologicalMaterial

[LEED v4] "Yes ex/SC" result is due only to materials and substances for which Special Conditions were applied. Thus "Yes ex/SC" does not disqualify the product for the LEED v4 Materials and Resources Disclosure and Optimization credit, Option 1.

Permacon's products have been screened at a 1,000 ppm level so that all intentional materials and known potential residuals that could have existed in raw materials, at that level, have been disclosed. Permacon's Lightweight Block contains special condition materials, geological materials, which have been reported accordingly.

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: CDPH Standard Method V1.2 (Section 01350/CHPS) - N/A

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

- Yes
- No

PREPARER: Vertima

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2020-10-19

PUBLISHED DATE: 2020-10-19

EXPIRY DATE: 2023-10-19

## 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](http://www.hpd-collaborative.org/hpd-2-2-standard)

### AGGREGATES

#: 86.5000

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: Yes MATERIAL TYPE: Geologically Derived Material

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities reported by the manufacturers. Naturally occurring elements can be present in the limestone, such as Vanadium pentoxide.

OTHER MATERIAL NOTES: Aggregates are composed of lightweight aggregates (slag) and block screenings (limestone).

### BLAST FURNACE SLAG

ID: 65996-69-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-10-19

#: 75.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Filler

#### HAZARD TYPE

#### AGENCY AND LIST TITLES

#### WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Lightweight aggregates

### SC:LIMESTONE

ID: SC:GeoMat

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-10-19

#: 25.0000 GS: Not Screened RC: None NANO: No SUBSTANCE ROLE: Filler

#### HAZARD TYPE

#### AGENCY AND LIST TITLES

#### WARNINGS

Hazard Screening not performed

#### SUBSTANCE NOTES:

Version: SCGeoMats/2019-06-20

Origin: Canada (province of Ontario)

Typical Composition: Primarily calcium carbonate and magnesium carbonate

Potential presence of toxic metals: May contain traces of Vanadium pentoxide

Presence of Radioactive Elements: No radioactive elements present.

Limestone screenings. Limestone CAS number is 1317-65-3

### PORTLAND LIMESTONE CEMENT

#: 9.9500

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: Yes MATERIAL TYPE: Geologically Derived Material

RESIDUALS AND IMPURITIES NOTES: Chromate and nickel compounds can be present in the cement at trace levels, i.e., below the declaration threshold.

OTHER MATERIAL NOTES: Limestone replaces clinker used to produce regular Portland cement.

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-10-19**

%: **80.0000 - 90.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

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

SUBSTANCE NOTES: See Material notes

**QUARTZ**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-10-19**

%: **0.1000 - 1.5000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
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	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: Crystalline silica.

**CALCIUM OXIDE**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-10-19**

%: **0.0000 - 2.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

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

SUBSTANCE NOTES: See Material notes

**LIMESTONE**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-10-19**

%: 0.0000 - 15.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Filler

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: See material notes.

**PHOSPHOGYPSUM**

ID: 13397-24-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-10-19

%: 0.0000 - 6.0000

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: See material notes.

**GLASS POWDER**

%: 3.4600

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Glass

RESIDUALS AND IMPURITIES NOTES: No residuals reported. As this is recycled glass, ceramic particles can be present in the glass powder.

OTHER MATERIAL NOTES: Alternate material to Slag cement.

**GLASS / MINERAL FIBER (POST-CONSUMER RECYCLED)**

ID: 65997-17-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-10-19

%: 100.0000

GS: LT-UNK

RC: PostC

NANO: No

SUBSTANCE ROLE: Filler

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: This substance is made form recycled glass transformed into powder.

**SLAG CEMENT**

%: 3.4600

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Geologically Derived Material

RESIDUALS AND IMPURITIES NOTES: Manufacturer's statement: Granulated blast-furnace slag is a co-product of the steel industry produced by adding a limestone flux to the ore to remove non-ferrous contaminants. As such, it may contain small quantities of hazardous heavy metals, including trace amounts of chromium, usually in solution in the glass. The ground granulated blast-furnace slag is a vitreous material containing silica, alumina, magnesia and calcium oxides. It also contains a small quantity of iron, sodium, titanium and manganese oxides. The oxides do not actually occur in free form but as complexed silica-based glasses.

OTHER MATERIAL NOTES: Ground granulated blast-furnace slag cement.

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-10-19**%: **95.0000 - 100.0000** GS: **LT-UNK** RC: **PreC** NANO: **No** SUBSTANCE ROLE: **Filler**

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

SUBSTANCE NOTES: See material notes.

**QUARTZ**

ID: 14808-60-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-10-19**%: **Impurity/Residual** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
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	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: Crystalline silica comes from unreacted molten slag.

**ADMIXTURE**%: **0.0400**

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: No MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Composition, residuals and impurities are below the declaration threshold.

OTHER MATERIAL NOTES: The admixture is a mixture of the substances listed below with additional nonhazardous ingredients. Since the admixture is present in the final product below the declaration threshold, the information listed on the safety data sheet is sufficient to meet the HPD Open Standard requirements.

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-10-19**

%: **10.0000 - 20.0000** GS: **BM-1tp** RC: **None** NANO: **No** SUBSTANCE ROLE: **Surfactant**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	OSPAR - Priority PBTs & EDs & equivalent concern	Endocrine Disruptor - Chemical for Priority Action
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - Action Plan in development
ENDOCRINE	ChemSec - SIN List	Endocrine Disruption
REPRODUCTIVE	US EPA - PPT Chemical Action Plans	Reproductive effects
CHRON AQUATIC	US EPA - PPT Chemical Action Plans	Highly toxic to aquatic organisms
DEVELOPMENTAL	US EPA - PPT Chemical Action Plans	Developmental Effects
ENDOCRINE	EU - SVHC Authorisation List	Equivalent Concern - Candidate List

SUBSTANCE NOTES: Hazardous ingredient disclosed in the admixture SDS

## 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	CDPH Standard Method V1.2 (Section 01350/CHPS) - N/A		
CERTIFYING PARTY: Self-declared	ISSUE DATE: 2020-09-	EXPIRY DATE:	CERTIFIER OR LAB: n/a
APPLICABLE FACILITIES: All facilities.	18		
CERTIFICATE URL:			
CERTIFICATION AND COMPLIANCE NOTES: Concrete is an inherently non-emitting source.			

## 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

**MANUFACTURER INFORMATION**

**MANUFACTURER:** Permacon  
**ADDRESS:** 8375 5th Side Road  
**Milton ON L9T 2X7, Canada**  
**WEBSITE:** www.permacon.ca

**CONTACT NAME:** Customer Service  
**TITLE:** -  
**PHONE:** 905-875-4215  
**EMAIL:** customerservicegta@permacon.ca

*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**

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

**GreenScreen (GS)**

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