

Section 1: Summary

CONTENT INVENTORY

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

- Residuals and impurities considered in 5 of 5 materials
- see Section 2: Material Notes
 - see Section 5: General Notes

Based on the selected Content Inventory Threshold:

Characterized.....	<input checked="" type="radio"/>	<input type="radio"/>
Are the Percent Weight and Role provided for all substances?	Yes	No
Screened.....	<input checked="" type="radio"/>	<input type="radio"/>
Are all substances screened using Priority Hazard Lists with results disclosed?	Yes	No
Identified.....	<input checked="" type="radio"/>	<input type="radio"/>
Are all substances disclosed by Name (Specific or Generic) and Identifier?	Yes	No

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.

Number of Greenscreen BM-4/BM3 contents..... 0
 Contents highest concern GreenScreen Benchmark or List translator Score..... LT-1
 Nanomaterial..... No

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

AGGREGATES #2 [LIMESTONE; CALCIUM CARBONATE **LT-UNK**
 GRAVEL **UNK**] CEMENT TYPE HE [PORTLAND CEMENT **LT-UNK** |
 CAN CALCIUM OXIDE **LT-UNK** QUARTZ **LT-1** | CAN CHROMATE **UNK**
 NICKEL, OTHER INORGANIC COMPOUNDS **UNK**] SLAG CEMENT [
 BLAST FURNACE SLAG **LT-UNK** QUARTZ **LT-1** | CAN] GLASS
 POWDER [SILICA, FUSED **LT-1** | CAN] ADMIXTURE #1 [
 POLYETHYLENE GLYCOL MONO(BRANCHED P-NONYLPHENYL) ETHER
LT-1 | END | PBT | MUL | REP | AQU | DEV]

INVENTORY AND SCREENING NOTES:

HPD has been built as a Material Content Inventory Display. Therefore, inventory thresholds are related to the composition of each material and not the final product. 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.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE

No certifications have been added to this HPD.

<input checked="" type="radio"/> Self-Published*	VERIFIER:	SCREENING DATE: December 1, 2016	EXPIRY DATE*: December 1, 2019
<input type="radio"/> Third Party Verified	VERIFICATION #:	RELEASE DATE: February 17, 2017	* or within 3 months of significant change in product contents

**See HPDC website for details*



Section 2: Content in Descending Order of Quantity

This section lists materials in a product and the substances in each material based on the Inventory Threshold for each material. If residuals or impurities from the manufacturing or extraction processes are considered for a material, these are inventoried and characterized to the extent described in the Material and/or General Notes. Chemical substances are screened against the HPD Priority Hazard Lists for human and environmental health impacts. Screening is based on best available information; "Not Found" does not necessarily mean there is no potential hazard associated with the product or its contents. More information about Priority Hazard Lists and the GreenScreen can be found online: www.hpd-collaborative.org and www.greenscreenchemicals.org.

AGGREGATES #2

HPD URL: %: 92.1800

Residuals Considered: Yes

Inventory Threshold: 1000 ppm

Material Notes: Aggregates are composed of asphalt sand and block screenings

LIMESTONE; CALCIUM CARBONATE

ID: 1317-65-3

%: 54.2300

GS: LT-UNK

RC: None

NANO: NO

ROLE: inert granular materials

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Approximation for block (limestone) screenings

GRAVEL

ID:

%: 45.7700

GS: UNK

RC: None

NANO: NO

ROLE: inert granular materials

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Gravel is a synonym of sand

CEMENT TYPE HE

HPD URL: %: 6.1000

Residuals Considered: Yes

Inventory Threshold: 1000 ppm

Material Notes: Cementing material

PORTLAND CEMENT

ID: 65997-15-1

%: 90.0000 - 100.0000

GS: LT-UNK

RC: None

NANO: NO

ROLE: Binding ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

MAK

Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: See Material notes

CALCIUM OXIDE

ID: 1305-78-8

%: 0.3000 - 3.0000	GS: LT-UNK	RC: None	NANO: NO	ROLE: Additional ingredient #1
--------------------	------------	----------	----------	--------------------------------

HAZARDS:**AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Material notes

QUARTZ

ID: 14808-60-7

%: 0.1000 - 1.5000	GS: LT-1	RC: None	NANO: NO	ROLE: Additional ingredient #2
--------------------	----------	----------	----------	--------------------------------

HAZARDS:**AGENCY(IES) WITH 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
--------	-----	--

SUBSTANCE NOTES: Crystalline silica

CHROMATE

ID: 13907-45-4

%: 0.0000 - 0.1000	GS: UNK	RC: None	NANO: NO	ROLE: Additional ingredient #3
--------------------	---------	----------	----------	--------------------------------

HAZARDS:**AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Approximation for Chromate compounds

NICKEL, OTHER INORGANIC COMPOUNDS

ID:

%: 0.0000 - 0.1000	GS: UNK	RC: None	NANO: NO	ROLE: Additional ingredient #4
--------------------	---------	----------	----------	--------------------------------

HAZARDS:**AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Approximation for Nickel compounds. "Inorganic compounds" was selected as best suited in this context.

SLAG CEMENT**%: 1.6900****HPD URL:**

Inventory Threshold: 1000 ppm

Residuals Considered: Yes

Material Notes: Ground granulated blast-furnace slag. Slag replaces the original portland cement input.

BLAST FURNACE SLAG

ID: 65996-69-2

%: 100.0000

GS: LT-UNK

RC: PreC

NANO: NO

ROLE: Supplementary
Cementing Material**HAZARDS:****AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE 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.

QUARTZ

ID: 14808-60-7

%: Impurity/Residual

GS: LT-1

RC: None

NANO: NO

ROLE: Impurity/Residual

HAZARDS:**AGENCY(IES) WITH 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

SUBSTANCE NOTES: Crystalline silica

GLASS POWDER**%: 1.6900****HPD URL:**

Inventory Threshold: 1000 ppm

Residuals Considered: Yes

Material Notes: Alternate material to Slag cement. Glass powder is present at 1.69% in standard block - Milton with glass powder. Glass powder replaces the original portland cement input.

%: 100.0000	GS: LT-1	RC: PostC	NANO: NO	ROLE: Supplementary Cementing Material
-------------	----------	-----------	----------	--

HAZARDS:**AGENCY(IES) WITH WARNINGS:**

CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
--------	-----------------------------------	-------------------------

SUBSTANCE NOTES: Approximation for recycled glass transformed into powder.

ADMIXTURE #1

%: 0.0200

HPD URL:

Inventory Threshold: Per GHS SDS

Residuals Considered: Yes

Material Notes: Manufacturer's statement: Mixture of the substances listed below with additional nonhazardous ingredients. Since the admixture is present in the final product at a weight % of less than 0.1%, the information based on the safety data sheet is sufficient to meet the HPD Open Standard requirements.

POLYETHYLENE GLYCOL MONO(BRANCHED P-NONYLPHENYL) ETHER

ID: 127087-87-0

%: 10.0000 - 20.0000	GS: LT-1	RC: None	NANO: NO	ROLE: Admixture ingredient
----------------------	----------	----------	----------	----------------------------

HAZARDS:**AGENCY(IES) WITH WARNINGS:**

ENDOCRINE	EU - Priority Endocrine Disrupters	Category 1 - In vivo evidence of Endocrine Disruption Activity
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
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

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.



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.



Section 5: General Notes



MANUFACTURER INFORMATION

MANUFACTURER: Permacon

CONTACT NAME: Blaise Perron

ADDRESS: 8145 rue Bombardier
Anjou, QC H1J 1A5
Canada

TITLE: Technical support engineer

PHONE: 5143512120

WEBSITE: www.permacon.ca

EMAIL: bperron@permacon.ca

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

GLO Global warming

PHY Physical Hazard (reactive)

CAN Cancer

MAM Mammalian/systemic/organ toxicity

REP Reproductive toxicity

DEV Developmental toxicity

MUL Multiple hazards

RES Respiratory sensitization

END Endocrine activity

NEU Neurotoxicity

SKI Skin sensitization/irritation/corrosivity

EYE Eye irritation/corrosivity

OZO Ozone depletion

LAN Land Toxicity

GEN Gene mutation

PBT Persistent Bioaccumulative Toxic

NF Not found on Priority Hazard Lists

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)

LT-P1 List Translator Possible Benchmark 1

BM-3 Benchmark 3 (use but still opportunity for improvement) **BM-2** Benchmark 2 (use but search for safer substitutes)

LT-1 List Translator Likely Benchmark 1

BM-1 Benchmark 1 (avoid - chemical of high concern)

LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)

BM-U Benchmark Unspecified (insufficient data to benchmark)

UNK 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

Nano Composed of nanoscale particles or nanotechnology

Declaration Level

Self-declared Manufacturer's self-declaration (First Party)

Independent Lab Manufacturer's self-declaration using results from an independent lab

Second Party Verification by trade association or other interested party

Third Party Verification by independent certifier

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 does not provide an assessment of health impacts throughout the product life cycle. It does not provide an assessment of exposure or risk associated with product handling or use. It also does not address potential health impacts of: (i) substances used or created during the manufacturing process unless they remain in the final product, or (ii) substances created after the product is delivered for end use (e.g., if the product burns, degrades, or otherwise changes chemical composition).

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

A disclosure completed in compliance with the HPD Open Standard is referred to as a "Health Product Declaration," or "HPD." 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 Open Standard noted.