

HPD UNIQUE IDENTIFIER: 23827

CLASSIFICATION: 32 14 00 Unit Paving

PRODUCT DESCRIPTION: Unilock’s manufacturing teams have an unrelenting commitment to shipping only top quality products. Every Unilock product is durable, made with colorfast pigments, slip resistant, resistant to salt erosion, and designed to tolerate oil and gas spills. This HPD covers the Senzo and Umbriano product lines manufactured at Unilock’s world class facilities. Also includes CSI MasterFormat 32 14 13 Precast Concrete Unit Paving.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

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

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY
GREENSCREEN SCORE | HAZARD TYPE
ENDURACOLOR PLUS EASY CLEAN ARCHITECTURAL PAVERS [
NATURAL SAND Not Screened **MIXED AGGREGATE** Not Screened
PORTLAND CEMENT LT-P1 | CAN | END **QUARTZ** LT-1 | CAN **BLAST**
FURNACE SLAG LT-UNK **IRON OXIDE** LT-UNK | CAN **FERRIC OXIDE**
BM-2 | CAN **TITANIUM DIOXIDE** LT-1 | CAN | END **FERRIC OXIDE**
YELLOW LT-UNK **CALCIUM OXIDE** LT-P1 **SILICA, AMORPHOUS** LT-P1
 | CAN **SULFUR TRIOXIDE** LT-P1 | MAM]

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.

This Health Product Declaration (HPD) was completed in accordance with the HPD Standard version 2.1.1, and discloses hazards associated with all substances present at or above 1000 parts per million (ppm) in the finished product, along with the role and percent weight.

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 – Not tested

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: 2019-11-25

PUBLISHED DATE: 2021-02-17

EXPIRY DATE: 2022-11-25

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

ENDURACOLOR PLUS EASY CLEAN ARCHITECTURAL PAVERS

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were "Considered", as outlined in Emerging Best Practices. Residuals or impurities with the potential to be present at or above the Content Inventory Threshold indicated that return a GS score of BM-1, LT-1, LT-P1 or NoGS have been disclosed, based on information provided in supplier disclosure letters, supplier SDS, and as predicted by process chemistry (Pharos CML).

OTHER PRODUCT NOTES: Percent by weight of substances reported as range to account for formulation variations between product lines and manufacturing facilities.

NATURAL SAND

ID: SC:GeoMat

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2019-11-25

#: 33.0000 - 63.0000 GS: Not Screened 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: Includes fine sand, very fine sand, and concrete sand.

MIXED AGGREGATE

ID: SC:GeoMat

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2019-11-25

#: 29.0000 - 39.0000 GS: Not Screened 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: Aggregate materials used in the manufacture of bricks, mortar, cement, concrete, plasters, paving materials and other constructions materials. Other means of identification: Limestone; Sand & Gravel; Granite; Recycled Concrete Aggregate (RCA). Recycled Concrete Aggregate (RCA) is a granular base material produced by reclaiming existing hydraulic cement concrete and processing the materials to make a new aggregate.

PORTLAND CEMENT

ID: 65997-15-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2019-11-25

#: 5.0000 - 25.0000 GS: LT-P1 RC: None NANO: No SUBSTANCE ROLE: Binder

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

SUBSTANCE NOTES: Includes Portland cement, white cement, and mortar from multiple suppliers. From supplier documentation: "Cement is made from materials mined from the earth and processed using energy provided by fuels. Additional materials, such as fly ash, kiln dust and slag may also be introduced into the cement manufacturing process. A chemical analysis of cement may reveal trace amounts of naturally occurring but potentially harmful chemical compounds such as free crystalline silica, organic compounds, potassium and sodium compounds, heavy metals including cadmium, chromium (including hexavalent chromium), nickel and lead. Other trace constituents may include calcium oxide (also known as free lime or quick lime) and organic compounds from grinding aids such as amine acetate salts, glycols and 1,2-ethanediol."

QUARTZ

ID: 14808-60-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-11-25**

#: **0.0000 - 10.0000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Filler**

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

SUBSTANCE NOTES: White quartz. May also represent potential impurity or component of various raw materials.

BLAST FURNACE SLAG

ID: 65996-69-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-11-25**

#: **0.0000 - 10.0000** GS: **LT-UNK** RC: **PreC** NANO: **No** SUBSTANCE ROLE: **Binder**

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

SUBSTANCE NOTES: Slag cement. Other means of identification: GGBFS; Ground Granulated Blast Furnace Cement. Industrial uses in manufacture of concrete, portland cement, blended cement and other building and construction materials. Supplier documentation states: The majority of components in Granulated Blast Furnace Slag are various glassy Metallic Silicates (Iron, Calcium, Magnesium, Aluminum, and Titanium Silicates), including: Dicalcium Silicate (Ca₂SiO₄) 14284-23-2, Merwinite (Ca₃MgSi₂O₈) 13813-64-4, and Gehlenite (Ca₂Al₂SiO₇) 1302-56-3. 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. Ground granulated blast-furnace slag (GGBFS) 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.

IRON OXIDE

ID: 1317-61-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-11-25**

#: **0.0000 - 2.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: Percent by weight of substance reported as a range due to different colors available. Contact manufacturer if more information is required.

FERRIC OXIDE

ID: 1309-37-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-11-25**

#: **0.0000 - 1.0000** GS: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: GreenScreen Benchmark® assessment score of BM-2 was provided by the HPD Builder Tool. Percent by weight of substance reported as a range due to different colors available. Contact manufacturer if more information is req

TITANIUM DIOXIDE

ID: 13463-67-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-11-25**

#: **0.0000 - 1.0000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CAN	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SUBSTANCE NOTES: Pigmentary Titanium Dioxide is identified on the US EPA Safer Chemical Ingredient List (Green Circle - Verified Low Concern). Percent by weight of substance reported as a range due to different colors available. Contact manufacturer if more information is required.

FERRIC OXIDE YELLOW

ID: 51274-00-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-11-25**

%: **0.0000 - 1.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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

SUBSTANCE NOTES: Percent by weight of substance reported as a range due to different colors available. Contact manufacturer if more information is required.

CALCIUM OXIDE

ID: 1305-78-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-11-25**

%: **Impurity/Residual** GS: **LT-P1** 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: Sources: Portland cement; slag cement. As per Pharos CML: Component; Frequent; % Unknown.

SILICA, AMORPHOUS

ID: 7631-86-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-11-25**

%: **Impurity/Residual** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	GHS - Australia	H350i - May cause cancer by inhalation
CAN	GHS - Japan	Carcinogenicity - Category 1A [H350]

SUBSTANCE NOTES: Potential impurity of slag cement (65996-69-2) as per Pharos CML (Pollutant/Contaminant; Frequent; % Unknown).

SULFUR TRIOXIDE

ID: 7446-11-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-11-25**

%: **Impurity/Residual** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances

SUBSTANCE NOTES: Potential source: Portland cement. As per Pharos CML: Component; Integral; 3.0%.

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 – Not tested

CERTIFYING PARTY: Self-declared

ISSUE DATE: 2019-08-14

EXPIRY DATE:

CERTIFIER OR LAB: N/A

APPLICABLE FACILITIES: N/A

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES:

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

EnduraColor Plus Easy Clean Architectural Pavers are manufactured at the following Unilock facilities: Brewster, New York; Aurora, Illinois; Marengo, Illinois; Georgetown, Ontario, Uxbridge, MA, Pickering ON

MANUFACTURER INFORMATION

MANUFACTURER: Unilock
ADDRESS: 401 The West Mall
 Suite 610
 Toronto ON M9C 5J5, CANADA
WEBSITE: www.unilock.com

CONTACT NAME: Brad Swanson
TITLE: Director of Commercial Sales
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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)	
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)	NoGS No GreenScreen.

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.