

HPD UNIQUE IDENTIFIER: 27722

CLASSIFICATION: 09 66 00 Terrazzo Flooring

PRODUCT DESCRIPTION: Sensitile's Terrazzo products feature hundreds of light-conducting channels embedded in a fine terrazzo substrate, allowing the materials to manipulate light in unique ways. The surprising result is a shifting, shimmering, and twinkling response to light, movement, and shadows. Sensitile's Terrazzo family of materials is available both as pre-cast tiles or slabs, and can also be custom cast to the specific requirements of different projects. This HPD covers the following Sensitile Terrazzo product lines: Sensitile Terrazzo™ Slabs; Sensitile Terrazzo™ Tiles; Terrazzo Lumina™ Slabs; Terrazzo Lumina™ Tiles; PIXA™ Slabs. Also includes the following CSI MasterFormat numbers: 09 66 13 Portland Cement Terrazzo Flooring; 09 66 16 Terrazzo Floor Tile; 09 66 16.13 Portland Cement Terrazzo Floor Tile; 09 77 33 Terrazzo Wall Finish; 12 36 00 Countertops; 12 36 13 Concrete Countertops; 10 22 00 Partitions.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

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

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

SENSITILE'S TERRAZZO LINE [SC:SAND Not Screened PORTLAND CEMENT LT-P1 | CAN | END GLASS OXIDE LT-UNK DIETHYLENE GLYCOL MONO-N-BUTYL ETHER LT-P1 | END | EYE UNDISCLOSED NoGS SILICON DIOXIDE BM-1 | CAN TITANIUM DIOXIDE LT-1 | CAN | END ALUMINUM CALCIUM IRON OXIDE (ALCA2FE05) NoGS FERRIC OXIDE BM-1 | CAN QUARTZ BM-1 | CAN]

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

Contents highest concern GreenScreen Benchmark or List translator Score ... BM-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 2.2, 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. Substances not "Identified" are those considered proprietary to suppliers.

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: Intertek - Certified Clean Air Gold

LCA: Environmental Product Declaration (EPD) by SCS

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?	PREPARER: Self-Prepared	SCREENING DATE: 2022-03-02
☐ Yes	VERIFIER:	PUBLISHED DATE: 2022-03-02
☒ No	VERIFICATION #:	EXPIRY DATE: 2025-03-02

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-02 14:02:20		
%: 5.4000 - 5.5000	GS: LT-UNK	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:				

DIETHYLENE GLYCOL MONO-N-BUTYL ETHER

ID: 112-34-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-02 14:02:20		
%: 0.1000 - 0.2000	GS: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Stabilizer
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
END	TEDX - Potential Endocrine Disruptors		Potential Endocrine Disruptor	
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1		H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]	
SUBSTANCE NOTES: Component of shrinkage-reducing admixture.				

UNDISCLOSED

ID: Undisclosed

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-02 14:02:21		
%: 0.1000 - 0.2000	GS: NoGS	RC: None	NANO: No	SUBSTANCE ROLE: Plasticizer
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
None found	No warnings found on HPD Priority Hazard Lists			
SUBSTANCE NOTES: Supplier has shared substance identity under the terms of a non-disclosure agreement; substance to remain proprietary to supplier. Substance has been screened against HPD Priority Lists using the HPD Builder with results disclosed.				

SILICON DIOXIDE

ID: 7631-86-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-02 14:02:21		
%: 0.0800 - 0.1200		GS: BM-1		RC: None NANO: No SUBSTANCE ROLE: Processing regulator
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
CAN	GHS - Japan		H350 - May cause cancer [Carcinogenicity - Category 1A]	
CAN	GHS - Australia		H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]	
SUBSTANCE NOTES: Component of plasticizer and shrinkage-reducing admixture. GreenScreen Benchmark® assessment score of BM-1 was provided by the HPD Builder Tool. Warnings restricted to respirable forms (Silica, crystalline - airborne particles of respirable size). May also represent potential impurity of Portland cement as per Pharos CML.				

TITANIUM DIOXIDE

ID: 13463-67-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-03-02 14:02:22	
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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
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

SUBSTANCE NOTES: Identified on the US EPA Safer Chemical Ingredient List (Green Circle - Verified Low Concern). Form-specific hazards: airborne particles of respirable size – occupational setting. Specific guidelines have been created to address known issues related to transparency and disclosure for several materials (“Special Conditions”), including those with Form-Specific Hazards such as Titanium Dioxide; however, this function is not yet available in the HPD Builder. Substance not used in all formulations. Contact manufacturer if more information is required.

ALUMINUM CALCIUM IRON OXIDE (ALCA2FEO5)

ID: 12068-35-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-02 14:02:22		
%: Impurity/Residual	GS: NoGS	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: Potential impurity of Portland cement as per Pharos CML.				

FERRIC OXIDE

ID: 1309-37-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-02 14:02:23		
%: Impurity/Residual	GS: BM-1	RC: None	NANO: No	SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification		

SUBSTANCE NOTES: Potential impurity of Portland cement as per Pharos CML. GreenScreen Benchmark® assessment score of BM-1 was provided by the HPD Builder Tool. Warnings restricted to respirable forms (Silica, crystalline - airborne particles of respirable size).

QUARTZ

ID: 14808-60-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-02 14:02:23		
%: 0.0000 - 5.8000	GS: BM-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 - New Zealand	6.7A - Known or presumed human carcinogens
CAN	GHS - Japan	H350 - May cause cancer [Carcinogenicity - Category 1A]
CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]

SUBSTANCE NOTES: Aggregate not used in all formulations. Contact manufacturer if more information is required. May also represent potential impurity of sand and Portland cement as per supplier documentation and Pharos CML. GreenScreen Benchmark® assessment score of BM-1 was provided by the HPD Builder Tool. Quartz is one of several compounds with warnings restricted to respirable forms (Silica, crystalline - airborne particles of respirable size).

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	Intertek - Certified Clean Air Gold		
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Ypsilanti, MI 48198 USA CERTIFICATE URL: https://tinyurl.com/3m9ewrh4	ISSUE DATE: 2021-05-19	EXPIRY DATE: 2022-05-19	CERTIFIER OR LAB: Intertek
CERTIFICATION AND COMPLIANCE NOTES: Certificate Number: CA-18479-2021a. Conformance Criteria: California Department of Public Health (CDPH) Standard Method v1.2: Private Office and School Classroom. Product Category: Building Products. Models Included: PIXA™, Sensitile Terrazzo™, Terrazzo Lumina™. TVOC Range: Between 0.5 and 5.0 mg/m3.			
LCA	Environmental Product Declaration (EPD) by SCS		
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Ypsilanti, MI 48198 CERTIFICATE URL: https://www.scsglobalservices.com/certified-green-products-guide?pd_pid=43373	ISSUE DATE: 2018-01-09	EXPIRY DATE: 2023-01-08	CERTIFIER OR LAB: SCS Global Services
CERTIFICATION AND COMPLIANCE NOTES: EPD Number: SCS-EPD-04816. Products: Sensitile Systems Concrete Slabs and Tiles; Product Lines: Terrazzo Lumina™; PIXA™; Sensitile Terrazzo™. Declared Unit: 1 m2 of slab or tile surface. Reference Flow: 1 m2 of slab or tile with a 1-1/4" thickness, and with a total weight of 64 kg/m2. Results are shown as an average of slab/tile products with, or without, aggregate. Reference PCR: Product Category Rule (PCR) for preparing an Environmental Product Declaration (EPD) for Construction Products and CPC 54 Construction Services, v2.2, May 2017.			

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.

STONETECH® BULLETPROOF® SEALER BY LATICRETE INTERNATIONAL INC.	HPD URL: https://hpdrepository.hpd-collaborative.org/repository/HPDs/168_STONETECH_Bulletproof_Sealer.pdf
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Sealant employed on a project-by-project basis. Contact manufacturer if more information is required.	

Section 5: General Notes

MANUFACTURER INFORMATION

MANUFACTURER: Sensitile Systems
ADDRESS: 1735 Holmes Road
Ypsilanti MI 48198, USA
WEBSITE: www.sensitile.com

CONTACT NAME: Justyna Bernacki
TITLE: Production
PHONE: 313-872-6314
EMAIL: info@sensitile.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)	
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.