# KAUFMAN SurePoxy LM Gel

**Health Product Declaration v2.3** CLASSIFICATION: 03 01 30 Maintenance of Cast-in-Place Concrete **HPD UNIOUE IDENTIFIER: 2116041728** 

#### **Product Description**

SurePoxy LM Gel is a 100% solids, low modulus, epoxy gel resin system that meets ASTM C-881, Types I and II, Grade 3, and Class C. SurePoxy LM Gel is ideal for bonding new concrete (or repair mortars) to old concrete or to adhere old concrete to existing concrete. SurePoxy LM Gel may be applied 2" deep in a single lift, which greatly speeds up the application process. This advantage gives SurePoxy LM Gel the decided edge against the competition





## Section 1: Summary

### **Nested Method / Product Threshold**

#### **CONTENT INVENTORY**

#### **Inventory Reporting Format**

- Nested Materials Method
- C Basic Method
- **Threshold Disclosed Per**
- Material
- Product

#### **Threshold Level**

- C 1,000 ppm
- C Per GHS SDS
- Other

#### Residuals/Impurities Evaluation

Completed in 15 of 15 Materials

Explanation(s) provided for Residuals/Impurities?

Yes ○ No

For all contents above the threshold, the manufacturer has:

Characterized

Yes ○ No

Provided weight and role.

Screened

Yes ○ No

Provided screening results using HPDC-approved methods.

Identified Yes ○ No

Provided name and CAS RN or other identifier.

#### **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.

NESTED MATERIAL | MATERIAL OR SUBSTANCE | RESIDUAL OR **IMPURITY** 

GREENSCREEN SCORE | HAZARD TYPE

BINDER (PART A) [ BISPHENOL A EPICHLOROHYDRIN POLYMER LT-P1 | MUL | SKI | EYE | AQU ] CURING AGENT 1 (PART B) [ ADIPONITRILE LT-UNK | MAM | SKI | EYE | FILLER 1 (PART A) [ QUARTZ BM-1\* | CAN | MAM | GEN ] CATALYST (PART A) [ 1,3-BIS(2,3-EPOXYPROPOXY)-2,2-DIMETHYLPROPANE LT-UNK | SKI | EYE ] CATALYST 1 (PART B) [ 4-NONYLPHENOL (BRANCHED) LT-1 END | MUL | PBT | SKI | AQU | REP | MAM | EYE ] EXTENDER (PART B) [ QUARTZ BM-1\* | CAN | MAM | GEN ] CURING AGENT 2 (PART B) [ 1,2-DIAMINOCYCLOHEXANE LT-UNK | SKI | EYE ] SOLVENT (PART B) [ (POLYETHYL)BENZENES BM-1 | MUL | MAM | SKI | AQU ] FILLER 1 (PART B) [ KAOLIN LT-UNK | CAN TITANIUM DIOXIDE BM-1\* | CAN | END | MAM FERROUS OXIDE LT-UNK | CAN ] FILLER 2 (PART A) [ AQUAFIL BM-1 CATALYST 2 (PART B) [ 1,3-BIS(2,3-EPOXYPROPOXY)-2,2-DIMETHYLPROPANE LT-UNK | SKI | EYE ] BINDER (PART B) [ BISPHENOL A EPICHLOROHYDRIN POLYMER LT-P1 | MUL | SKI | EYE | AQU ] ADDITIVE (PART B) [ BENTONITE LT-UNK] FILLER 2 (PART B) [ AQUAFIL BM-1] PIGMENT (PART A) [ TITANIUM DIOXIDE BM-1\* | CAN | END | MAM ]

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

Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... LT-1, BM-1, LT-P1

Nanomaterial ... No

#### **INVENTORY AND SCREENING NOTES:**

This HPD was produced using primary information from the manufacturer, including CAS numbers and SDS when needed. The manufacturer has made every effort to report the substances in this product to the listed threshold. This is a voluntary, self-reported effort. Any errors or omissions shall be considered a human error and therefore reported to the manufacturer. The manufacturer shall not be liable for omissions. The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD.

\*Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. For this reason, this score is intentionally omitted from the "Contents highest concern" line above. See HPDC's Special Conditions policy for more information.

#### **VOLATILE ORGANIC COMPOUND (VOC) CONTENT**

Material (g/l): 0 Regulatory (g/l): 100

Does the product contain exempt VOCs: No

Are colorants available that do not increase the VOC content of the base

paint when tinted: N/A

# **CERTIFICATIONS AND COMPLIANCE** See Section 3 for additional

listings.

VOC emissions: CDPH Standard Method - Not tested VOC content: MAS Certified Green - VOC Content

#### **CONSISTENCY WITH OTHER PROGRAMS**

Pre-checked for LEED v4 Option 1. Pre-checked for LEED v4.1 Option 1. Third Party Verified?

O Yes

No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2023-12-20 PUBLISHED DATE: 2024-01-11 EXPIRY DATE: 2026-12-20

# 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 2.3, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-3-standard

#### **BINDER (PART A)**

%: 28.0000 - 33.0000

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

OTHER MATERIAL NOTES: Percentages are shown in a range to protect the actual formulation.

#### **BISPHENOL A EPICHLOROHYDRIN POLYMER**

ID: 25068-38-6

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2023-12-26 14:26:25

GreenScreen: LT-P1 %: 100.0000

RC: None

NANO: No

SUBSTANCE ROLE: Binder

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS	
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters	
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]	
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]	
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]	
EYE	GHS - New Zealand	Eye irritation category 2	
SKI	GHS - Australia	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]	
EYE	GHS - Australia	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]	
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]	
SKI	GHS - New Zealand	Skin sensitisation category 1	
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 2	
AQU	GHS - Japan	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]	
AQU	GHS - Japan	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]	
AQU	GHS - Australia	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION	
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022	
		Core Restrictions	
RESTRICTED LIST	International Living Future Institute (ILFI)	Living Building Challenge 4.0 - Red List of Materials & Chemicals - Effective April 1, 2023	
		Red List substances to avoid in Living Building Challenge V4.0 projects	

SUBSTANCE NOTES: This additive is covered under strict intellectual property rights.

CURING AGENT 1 (PART B)	%: 20.0000 - 25.0000	
PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes	MATERIAL TYPE: Other: Organic Compound

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

OTHER MATERIAL NOTES: The manufacturer maintains rigorous intellectual property rights over this additive.

ADIPONITRILE			ID: 111-69-3	
HAZARD DATA SOURCE:	HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD	SCREENING DATE: 2023-12-26 14:58:19
%: 96.0000 - 100.0000	GreenScreen: LT-UNK	RC: PreC	NANO: <b>No</b>	SUBSTANCE ROLE: Curing agent
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
MAM	US EPA - EPCRA Extremely Substances	Hazardous	Extremely Hazar	rdous Substances
SKI	GHS - New Zealand		Skin irritation cat	tegory 2
EYE	GHS - New Zealand		Eye irritation cat	egory 2
MAM	GHS - Japan			damage to organs [Specific target toxicity following single exposure -
MAM	GHS - New Zealand		Acute inhalation	toxicity category 3
MAM	GHS - Japan	GHS - Japan		contact with skin [Acute Toxicity (dermal) -
MAM	GHS - New Zealand		Acute oral toxicit	y category 3
MAM GHS - Japan H301 - Toxic if swallowed [Acute T 3]		GHS - Japan		wallowed [Acute Toxicity (oral) - Category
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
RESTRICTED LIST	Green Science Policy Institut	e (GSPI)	GSPI - Six Class	ses Precautionary List
			Some Solvents	
RESTRICTED LIST	Green Science Policy Institut	e (GSPI)	GSPI - Six Class	ses Precautionary List
			Certain Metals	

SUBSTANCE NOTES: Adiponitrile is a complex combination of hydrocarbons produced by the distillation of products from the hydrogenation of adiponitrile. It contains such compounds as 6-aminohexanamide, 6-aminohexanenitrile, bishexamethylenetriamine, 1,2-cyclohexanediamine, and decanediamines. [ChemicalBook]. It's important to note that the actual material used may not necessarily match the exact ingredient listed. This information is intended for screening purposes only. Since the given CAS RN does not appear on any HPD Priority Lists.

FILLER 1 (PART A)	%: 8.0000 - 12.0000	
PRODUCT THRESHOLD: 100	RESIDUALS AND IMPURITIES EVALUATION COMPLETED:	MATERIAL TYPE: Geologically Derived
ppm	Yes	Material

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

OTHER MATERIAL NOTES:

QUARTZ

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			LIAZADO CODEFNINO DATE: 0000 40 00 44400	
			HAZARD SO	HAZARD SCREENING DATE: 2023-12-26 14:28:
%: 99.0000	GreenScreen: BM-1	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Filler
HAZARD TYPE	LIST NAME AND SOURCE	LIST NAME AND SOURCE		
CAN	US CDC - Occupational Carcino	ogens	Occupational Carc	inogen**
CAN	CA EPA - Prop 65		Carcinogen - spec	ific to chemical form or exposure route*
CAN	US NIH - Report on Carcinogen	S	Known to be Huma occupational setting	an Carcinogen (respirable size - g)**
CAN	MAK		Carcinogen Group man**	1 - Substances that cause cancer in
CAN	IARC		Group 1 - Agent is occupational source	carcinogenic to humans - inhaled from es**
CAN	IARC		Group 1 - Agent is Carcinogenic to humans**	
CAN	US NIH - Report on Carcinogen	S	Known to be a human Carcinogen**	
CAN	GHS - Japan		H350 - May cause 1A]**	cancer [Carcinogenicity - Category
CAN	GHS - Australia	GHS - Australia		cancer by inhalation [Carcinogenicity -
CAN	GHS - New Zealand		Carcinogenicity category 1**	
MAM	GHS - Japan	GHS - Japan		mage to organs through prolonged or [Specific target organs/systemic toxici exposure - Category 1]**
GEN	GHS - Japan	GHS - Japan		of causing genetic defects [Germ cell egory 2]**
MAM	GHS - Australia	GHS - Australia		mage to organs through prolonged or [Specific target organ toxicity Category 1]**
MAM	GHS - New Zealand	GHS - New Zealand		an toxicity - repeated exposure categor
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No	listings found on Additional Hazard List

ID: 14808-60-7

SUBSTANCE NOTES: Per Pharos database: "Only a few elements can replace silicon in the quartz lattice (substitutional positions) or are small enough to occupy free spaces in the lattice (interstitial positions). In natural quartz crystals, the most common ones to replace Si are Al, Fe, Ge, and Ti, whereas Li, Na, Ca, Mg and Fe often occupy interstitial positions in the "c-channels"." [Mindat]

\*\*Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. See HPDC's Special Conditions policy for more information. Manufacturer's Safety Data Sheet (SDS), if applicable, may offer occupational health and safety information.

#### **CATALYST (PART A)** %: 3.0000 - 6.0000

PRODUCT THRESHOLD: 100 RESIDUALS AND IMPURITIES EVALUATION COMPLETED: MATERIAL TYPE: Other: Organic Yes Compound ppm

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

OTHER MATERIAL NOTES: To protect confidentiality, percentages are shown in a range.

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2023-12-26 14:35:		
%: <b>100.0000</b>	GreenScreen: LT-UNK	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Catalyst	
HAZARD TYPE	LIST NAME AND SOU	RCE	WARNINGS		
SKI	EU - GHS (H-Statemer	EU - GHS (H-Statements) Annex 6 Table 3-1		H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]	
SKI	GHS - New Zealand		Skin irritation cate	gory 2	
EYE	GHS - New Zealand		Eye irritation category 2		
SKI	GHS - Australia	GHS - Australia		H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]	
SKI	GHS - Japan	GHS - Japan		H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]	
SKI	GHS - New Zealand	GHS - New Zealand		Skin sensitisation category 1	
ADDITIONAL LISTINGS	LIST NAME AND SOU	RCE	NOTIFICATION		
RESTRICTED LIST	Green Science Policy I	nstitute (GSPI)	GSPI - Six Classe	s Precautionary List	
			Some Solvents		

SUBSTANCE NOTES: Per the Pharos database, no residuals or impurities are available for this chemical substance.

CATALYST 1 (PART B) %: 3.0000 - 6.0000

PRODUCT THRESHOLD: 100 RESIDUALS AND IMPURITIES EVALUATION COMPLETED: MATERIAL TYPE: Other: Organic Compound

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

OTHER MATERIAL NOTES:

#### **4-NONYLPHENOL (BRANCHED)**

ID: 84852-15-3

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD S	HAZARD SCREENING DATE: 2023-12-26 14:54:20		
%: 100.0000	GreenScreen: LT-1	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Catalyst	
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS		

END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
END	OSPAR - Priority PBTs & EDs & equivalent concern	Endocrine Disruptor - Chemical for Priority Action
END	ChemSec - SIN List	Endocrine Disruption
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Substance of Possible Concern
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
REP	EU - GHS (H-Statements) Annex 6 Table 3-1	H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child [Reproductive toxicity - Category 2]
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
EYE	GHS - New Zealand	Serious eye damage category 1
SKI	GHS - Japan	H314 - Causes severe skin burns and eye damage [Skin corrosion / irritation - Category 1]
SKI	GHS - Australia	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - Japan	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]
AQU	GHS - Japan	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
AQU	GHS - Australia	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
AQU	GHS - Korea	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]
AQU	GHS - Korea	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
REP	GHS - Korea	H361 - Suspected of damaging fertility or the unborn child [Reproductive toxicity - Category 2]
SKI	GHS - Korea	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1]
SKI	GHS - New Zealand	Skin corrosion category 1B
REP	GHS - Japan	H361 - Suspected of damaging fertility or the unborn child [Toxic to reproduction - Category 2]

REP	EU - Annex VI CMRs	Reproductive Toxicity - Category 2	
REP	GHS - Australia	H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child [Reproductive toxicity - Category 2]	
END	EU - SVHC List	Equivalent Concern - Candidate List: endocrine disrupting properties cause probable serious effects to the environment or human health	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION	
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022	
		Core Restrictions	
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022	
		Children's Products	
RESTRICTED LIST	International Living Future Institute (ILFI)	Living Building Challenge 4.0 - Red List of Materials & Chemicals - Effective April 1, 2023	
		Red List substances to avoid in Living Building Challenge V4.0 projects	

SUBSTANCE NOTES: No residuals or impurities at or above 100 ppm.

EXTENDER (PART B)	%: 4.0000 - 6.0000	
PRODUCT THRESHOLD: 100	RESIDUALS AND IMPURITIES EVALUATION COMPLETED:	MATERIAL TYPE: Geologically Derived
ppm	Yes	Material

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

QUARTZ				ID: <b>14808-60-7</b>	
HAZARD DATA SC	HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2023-12-26 14:41:34	
%: 99.0000	GreenScreen: BM-1	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Filler	

HAZARD TYPE	LIST NAME AND SOURCE	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	US NIH - Report on Carcinogens	Known to be a human Carcinogen**
CAN	GHS - Japan	H350 - May cause cancer [Carcinogenicity - Category 1A]**
CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]**
CAN	GHS - New Zealand	Carcinogenicity category 1**
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]**
GEN	GHS - Japan	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]**
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]**
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1**
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Per Pharos database: "Only a few elements can replace silicon in the quartz lattice (substitutional positions) or are small enough to occupy free spaces in the lattice (interstitial positions). In natural quartz crystals, the most common ones to replace Si are Al, Fe, Ge, and Ti, whereas Li, Na, Ca, Mg and Fe often occupy interstitial positions in the "c-channels"." [Mindat]

CURING AGENT 2 (PART B)	%: 3.0000 - 5.0000	
PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes	MATERIAL TYPE: Other: Organic Compound

<sup>\*\*</sup>Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. See HPDC's Special Conditions policy for more information. Manufacturer's Safety Data Sheet (SDS), if applicable, may offer occupational health and safety information.

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

OTHER MATERIAL NOTES: Per the Pharos database, no residuals or impurities are available for this additive.

1,2-DIAMINOCYCLOHE	XANE			ID: <b>694-83-7</b>
HAZARD DATA SOURCE	E: Pharos Chemical and Materials Librar	у	HAZARD	SCREENING DATE: 2023-12-26 14:56:12
%: 100.0000	GreenScreen: LT-UNK	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Curing agent
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
SKI	GHS - New Zealand		Skin corrosion ca	ategory 1C
EYE	GHS - New Zealand		Serious eye dan	nage category 1
ADDITIONAL LISTINGS	S LIST NAME AND SOURCE		NOTIFICATION	
None found			١	No listings found on Additional Hazard Lists

SUBSTANCE NOTES: No additional notes are required.

SOLVENT (PART B)	%: 2.0000 - 5.0000
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PRODUCT THRESHOLD: 100 RESIDUALS AND IMPURITIES EVALUATION COMPLETED: MATERIAL TYPE: Geologically Derived Yes Material

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

(POLYETHYL)BENZENES ID: 64742-94-5

HAZARD DATA SOURCE: Pha	aros Chemical and Materials Library		HAZARD S	CREENING DATE: 2023-12-26 14:50:4
%: 99.0000 - 100.0000	GreenScreen: BM-1	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Solvent
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
MUL	German FEA - Substances Haza Waters	ardous to	Class 2 - Hazard t	o Waters
MAM	EU - GHS (H-Statements) Annex	c 6 Table 3-1	H304 - May be fata [Aspiration hazard	al if swallowed and enters airways - Category 1]
MAM	GHS - Japan			respiratory irritation [Specific target agle exposure - Category 3]
SKI	GHS - Japan		H315 - Causes ski Category 2]	in irritation [Skin corrosion / irritation -
AQU	GHS - Japan		H400 - Very toxic tenvironment (acut	to aquatic life [Hazardous to the aquatic e) - Category 1]
AQU	GHS - Japan		-	to aquatic life with long lasting effects aquatic environment (chronic) -
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
RESTRICTED LIST	Green Science Policy Institute (0	GSPI)	GSPI - Six Classe	s Precautionary List
			Some Solvents	

SUBSTANCE NOTES: TSCA Definition 2008: Obtained from distillation of aromatic streams and consisting of mainly aromatic hydrocarbons with carbon numbers of C9 through C16 and boiling range of 165 deg C to 290 deg C.

FILLER 1 (PART B)	%: 2.0000 - 5.0000	
PRODUCT THRESHOLD: 100	RESIDUALS AND IMPURITIES EVALUATION COMPLETED:	MATERIAL TYPE: Geologically Derived
ppm	Yes	Material

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

**KAOLIN** 

ID: 1332-58-7

HAZARD DATA SOURCE: P	haros Chemical and Materials Librar	y	HAZARD SO	CREENING DATE: 2023-12-26 14:37:41
%: 95.0000 - 99.0000	GreenScreen: LT-UNK	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Filler
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
CAN	MAK		Carcinogen Group but not sufficient fo	3B - Evidence of carcinogenic effects or classification
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No	listings found on Additional Hazard Lists

SUBSTANCE NOTES: Residuals or impurities are quantitatively measured and listed in this HPD when greater than or equal to 100 ppm.

TITANIUM DIOXIDE				ID: <b>13463-67-7</b>
HAZARD DATA SOURCE:	Pharos Chemical and Materials Libra	ials Library HAZARD SCREENING DATE: 2023-12-26 14:48:		
%: 0.4000 - 1.7000	GreenScreen: BM-1	RC: None	NANO: Unknown	SUBSTANCE ROLE: Impurity/Residua
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
CAN	US CDC - Occupational Carcin	nogens	Occupational Card	cinogen**
CAN	CA EPA - Prop 65		Carcinogen - spec	cific to chemical form or exposure route**
CAN	IARC		Group 2B - Possik from occupational	oly carcinogenic to humans - inhaled sources**
CAN	MAK			o 3A - Evidence of carcinogenic effects o establish MAK/BAT value**
END	TEDX - Potential Endocrine Di	isruptors	Potential Endocrin	ne Disruptor**
CAN	MAK		Carcinogen Group	o 4 - Non-genotoxic carcinogen with low AT levels**
CAN	IARC		Group 2b - Possib	ply carcinogenic to humans**
CAN	EU - GHS (H-Statements) Ann	nex 6 Table 3-1	H351 - Suspected Category 2]**	of causing cancer [Carcinogenicity -
CAN	GHS - Japan		H351 - Suspected Category 2]**	of causing cancer [Carcinogenicity -
MAM	GHS - Japan		repeated exposure	amage to organs through prolonged or e [Specific target organs/systemic toxicity d exposure - Category 1]**

LIST NAME AND SOURCE	NOTIFICATION
Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
	Children's Products
Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
	Formulated Consumer Products
Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
	Cosmetics & Personal Care Products
US Environmental Protection Agency (US	US EPA - DfE Safer Chemicals Ingredients list (SCIL)
	Colorants - Green Circle (Verified Low Concern)
	Cradle to Cradle Products Innovation Institute (C2CPII)  Cradle to Cradle Products Innovation Institute (C2CPII)  Cradle to Cradle Products Innovation Institute (C2CPII)

SUBSTANCE NOTES: According to the Pharos, kaolin contains 0.4-1.70% titanium dioxide as an impurity.

FERROUS OXIDE

ID: 1345-25-1

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2023-12-26 14:47:00

%: 0.4000 - 0.8000	GreenScreen: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
CAN	MAK		_	oup 3B - Evidence of carcinogenic effects nt for classification
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATIO	N
None found				No listings found on Additional Hazard Lists

 ${\tt SUBSTANCE\ NOTES:}\ According\ to\ the\ Pharos,\ kaolin\ contains\ 0.4-0.8\%\ ferrous\ oxide\ as\ an\ impurity.$ 

FILLER 2 (PART A) %: 2.0000 - 4.0000

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Other: Inorganic

<sup>\*\*</sup>Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. See HPDC's Special Conditions policy for more information. Manufacturer's Safety Data Sheet (SDS), if applicable, may offer occupational health and safety information.

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

OTHER MATERIAL NOTES:

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2023-12-26 14:34:04	
%: 99.0000	GreenScreen: BM-1	RC: None	NANO: <b>Unknown</b>	SUBSTANCE ROLE: Filler
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings	s found on HPD Priority Hazard Lists
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No listin	ngs found on Additional Hazard Lists

CATALYST 2 (PART B) %: 2.0000 - 4.0000

PRODUCT THRESHOLD: 100 RESIDUALS AND IMPURITIES EVALUATION COMPLETED: MATERIAL TYPE: Other: Organic Compound

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

HAZARD DATA SOURCE:	Pharos Chemical and Materials	HAZARD S	CREENING DATE: 2023-12-26 14:53:18	
%: 100.0000	GreenScreen: LT-UNK	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Catalyst
HAZARD TYPE	LIST NAME AND SOUR	CE	WARNINGS	
SKI	EU - GHS (H-Statements	s) Annex 6 Table 3-1	H315 - Causes sk Category 2]	in irritation [Skin corrosion/irritation -
SKI	GHS - New Zealand		Skin irritation cate	gory 2
EYE	GHS - New Zealand		Eye irritation cate	gory 2
SKI	GHS - Australia		H315 - Causes sk Category 2]	in irritation [Skin corrosion/irritation -
SKI	GHS - Japan		H315 - Causes sk Category 2]	in irritation [Skin corrosion / irritation -
SKI	GHS - New Zealand		Skin sensitisation	category 1
ADDITIONAL LISTINGS	LIST NAME AND SOUR	CE	NOTIFICATION	
RESTRICTED LIST	Green Science Policy Ins	stitute (GSPI)	GSPI - Six Classe	s Precautionary List
			Some Solvents	

SUBSTANCE NOTES: Per the Pharos database, no residuals or impurities are available for this substance.

BINDER (PART B) %: 1.0000 - 3.0000

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

HAZARD DATA SOURCE:	Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-12-26 14:49	
%: <b>100.0000</b>	GreenScreen: LT-P1	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Binder
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
MUL	German FEA - Substances I Waters	Hazardous to	Class 2 - Hazard to	o Waters
SKI	EU - GHS (H-Statements) A	nnex 6 Table 3-1	H315 - Causes ski Category 2]	n irritation [Skin corrosion/irritation -
EYE	EU - GHS (H-Statements) A	nnex 6 Table 3-1	H319 - Causes ser damage/eye irritati	rious eye irritation [Serious eye ion - Category 2A]
AQU	EU - GHS (H-Statements) A	nnex 6 Table 3-1		uatic life with long lasting effects aquatic environment (chronic) -
EYE	GHS - New Zealand		Eye irritation categ	jory 2
SKI	GHS - Australia		H315 - Causes ski Category 2]	n irritation [Skin corrosion/irritation -
EYE	GHS - Australia		H319 - Causes ser damage/eye irritati	rious eye irritation [Serious eye ion - Category 2A]
SKI	GHS - Japan		H315 - Causes ski Category 2]	n irritation [Skin corrosion / irritation -
SKI	GHS - New Zealand		Skin sensitisation	category 1
AQU	GHS - New Zealand		Hazardous to the a	aquatic environment - chronic category
AQU	GHS - Japan		H400 - Very toxic t environment (acute	to aquatic life [Hazardous to the aquati e) - Category 1]
AQU	GHS - Japan			to aquatic life with long lasting effects aquatic environment (chronic) -
AQU	GHS - Australia			uatic life with long lasting effects aquatic environment (chronic) -
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
RESTRICTED LIST	Cradle to Cradle Products Ir (C2CPII)	nnovation Institute	C2C Certified v4 P List (RSL) - Effection	Product Standard Restricted Substance ve July 1, 2022
			Core Restrictions	
RESTRICTED LIST	International Living Future Ir	nstitute (ILFI)	Living Building Cha Chemicals - Effect	allenge 4.0 - Red List of Materials & ive April 1, 2023
			Red List substance V4.0 projects	es to avoid in Living Building Challeng

SUBSTANCE NOTES: This additive is covered under strict intellectual property rights.

#### ADDITIVE (PART B) %: 1.0000 - 3.0000

PRODUCT THRESHOLD: 100 RESIDUALS AND IMPURITIES EVALUATION COMPLETED: MATERIAL TYPE: Geologically Derived Material

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

OTHER MATERIAL NOTES:

BENTONITE				ID: <b>1302-78-9</b>
HAZARD DATA SOURCE:	Pharos Chemical and Materials Library		HAZAR	D SCREENING DATE: 2023-12-26 14:44:05
%: 96.0000 - 99.0000	GreenScreen: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Viscosity modifier
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No	warnings found on HPD Priority Hazard Lists
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATIO	N
None found				No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The manufacturer did not disclose the CAS RN for this substance due to proprietary reasons. The data gaps were addressed using information from the Quartz database for common building materials and the Pharos database. It's important to note that the actual material used may not necessarily match the exact ingredient listed. This information is intended for screening purposes only.

#### FILLER 2 (PART B) %: 1.0000 - 3.0000

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Other: Inorganic

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

AQUAFIL ID: 112945-52-5

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2023-12-26 14:40:32	
%: 99.0000	GreenScreen: BM-1	RC: None	NANO: No	SUBSTANCE ROLE: Filler
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warr	nings found on HPD Priority Hazard Lists
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No	listings found on Additional Hazard Lists

PIGMENT	(PART A)	%: 1.0000 - 2.0000
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PRODUCT THRESHOLD: 100 RESIDUALS AND IMPURITIES EVALUATION COMPLETED: MATERIAL TYPE: Geologically Derived Material

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNOT) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.

OTHER MATERIAL NOTES:

TITANIUM DIOXIDE

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2023-12-26 14:27:17

%: 99.0000

GreenScreen: BM-1

RC: None

NANO: Unknown

SUBSTANCE ROLE: Pigment

HAZARD TYPE	LIST NAME AND SOURCE	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	IARC	Group 2b - Possibly carcinogenic to humans**
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]**
CAN	GHS - Japan	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]**
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]**
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
		Formulated Consumer Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
		Cosmetics & Personal Care Products
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE Safer Chemicals Ingredients list (SCIL)  Colorants - Green Circle (Verified Low Concern)

SUBSTANCE NOTES: No impurities at or above 100 ppm.

<sup>\*\*</sup>Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. See HPDC's Special Conditions policy for more information. Manufacturer's Safety Data Sheet (SDS), if applicable, may offer occupational health and safety information.

# 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: 2024-01-08 00:00:00

**EXPIRY DATE:** 

**EXPIRY DATE:** 

CERTIFIER OR LAB: None

MD, USA.

**CERTIFICATE URL:** 

CERTIFICATION AND COMPLIANCE NOTES:

#### **VOC CONTENT**

#### MAS Certified Green - VOC Content

CERTIFYING PARTY: Self-declared APPLICABLE FACILITIES: 3811 Curtis Avenue, Baltimore,

APPLICABLE FACILITIES: 3811 Curtis Avenue, Baltimore,

ISSUE DATE: 2024-01-08 00:00:00

CERTIFIER OR LAB: kaufmanproducts

MD, USA.

**CERTIFICATE URL:** 

CERTIFICATION AND COMPLIANCE NOTES: This is not MAS Green Certification. The VOC content is self-reported by using primary information i.e. SDS. VOC content= 0 grams/liter

### 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.

# **USES**

## Section 5: General Notes

Overhead & Vertical Structural Concrete Repairs

Bond Broken Pieces of Concrete Back

Seal Pre-Stressed Bridge Beams

Crack Sealing

Injection Port Setting Material

Pick Proof Sealant

**COMPLIANCES** 

ASTM C-881, Types I and II, Grade 3, Class C

AASHTO M-235, Types I and II, Grade 3, Class C

**DOT Approved** 

VDOT EP 6

NC DOT Type 1

PACKAGING

34 gallon units

3-gallon units

15-gallon units

#### **MANUFACTURER INFORMATION**

MANUFACTURER: Kaufman Products, Inc.

ADDRESS: 3811 Curtis Avenue Baltimore, Maryland 21226 COUNTRY: United States WEBSITE: kaufmanproducts.net CONTACT NAME: Alex Kaufman

TITLE: **President** PHONE: **4103548600** 

EMAIL: akaufman@kaufmanproducts.net

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

**CAN** Cancer

**DEV** Developmental toxicity **END** Endocrine activity

**EYE** Eye irritation/corrosivity

**GEN** Gene mutation

**GLO** Global warming

**LAN** Land toxicity

MAM Mammalian/systemic/organ toxicity

MUL Multiple

**NEU** Neurotoxicity

NF Not found on Priority Hazard Lists

**OZO** Ozone depletion

PBT Persistent, bioaccumulative, and toxic

PHY Physical hazard (flammable or reactive)

**REP** Reproductive

**RES** Respiratory sensitization

SKI Skin sensitization/irritation/corrosivity

**UNK** Unknown

#### 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 (due to insufficient data)

LT-P1 List Translator Possible 1 (Possible Benchmark-1)

**LT-1** List Translator 1 (Likely Benchmark-1) **LT-UNK** List Translator Benchmark Unknown

NoGS No GreenScreen.

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, www.greenscreenchemicals.org, and Best Practices for Hazard Screening on the HPDC website (hpd-collaborative.org).

#### **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

