

HPD UNIQUE IDENTIFIER: 1402812416

CLASSIFICATION: 03 30 00 Cast-in-Place Concrete

PRODUCT DESCRIPTION: These are the specifications for Eco as screened in this HPD: In English: Weight of the mixture- 2,047[kg/m3]; Flexural Strength to 28 days- 24.5 [MPa]/ 3556[psi]; Nominal Slump: 18 [cm]; Nominal air content: 2-3 [%]; Water % in cement- 46.4%; Maximum size Gravel (limestone)- 10 [mm]; Size of sand: No.4.75 [mm]; Shrink Limit [%] @ 56 days: 0.002 En Espanol: Peso Volumétrico- 2,047[kg/m3]; Resistencia a Compresión a 28 days- 24.5 [MPa]/ 3.556 [psi]; Revenimiento Nominal- 18 [cm]; Contenido de Aire Nonimal-Menor al 2-3 [%]; Agua:Cemento-46.4%; Tamaño Máximo de Agregado (limestone)- 10 [mm]; Tamaño de Arena- No. 4.75 [mm]; Contracción máxima [%] @ 56 days- 0.002

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format	Threshold Level	Residuals/Impurities Evaluation	For all contents above the threshold, the manufacturer has:
<input checked="" type="radio"/> Nested Materials Method	<input checked="" type="radio"/> 100 ppm	Completed in 10 of 10 Materials	<b>Characterized</b> <input checked="" type="radio"/> Yes <input type="radio"/> No
<input type="radio"/> Basic Method	<input type="radio"/> 1,000 ppm	<b>Explanation(s) provided for Residuals/Impurities?</b>	<i>Provided weight and role.</i>
<b>Threshold Disclosed Per</b>	<input type="radio"/> Per GHS SDS		<b>Screened</b> <input checked="" type="radio"/> Yes <input type="radio"/> No
<input type="radio"/> Material	<input type="radio"/> Other	<input checked="" type="radio"/> Yes <input type="radio"/> No	<i>Provided screening results using HPDC-approved methods.</i>
<input checked="" type="radio"/> Product			<b>Identified</b> <input type="radio"/> Yes <input checked="" type="radio"/> No
			<i>Provided name and CAS RN or other identifier.</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.

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

**GREENSCREEN SCORE** | HAZARD TYPE

**FINE AGGREGATE** [ **QUARTZ** BM-1 | CAN | MAM | GEN ] **COURSE AGGREGATE** [ **BASALT AGGREGATE** ] **WATER, RECYCLED AND NON-RECYCLED** [ **WATER** BM-4 | **WATER** BM-4 ] **CEMEX CEMENT (GENERAL PROFILE)** [ **UNDISCLOSED** BM-2 | SKI | MAM | EYE **UNDISCLOSED** BM-1 | CAN | MAM **UNDISCLOSED** BM-2 | MAM **UNDISCLOSED** BM-2 | MAM **UNDISCLOSED** BM-3dg | CAN | MAM **UNDISCLOSED** BM-1 | CAN | MAM **UNDISCLOSED** BM-2 ]

**SC:MIXEDRC:POST CONSUMER RECYCLED CONCRETE FORM MIXED SOURCES** [ **PORTLAND CEMENT** LT-P1 | CAN | END | MAM **RECYCLED CONCRETE** ] **POST CONSUMER RECYCLED PET** [ **POLYETHYLENE TEREPHTHALATE (PET)** LT-P1 ] **FLY ASH** [ **FLY ASH** LT-UNK ] **SC:MIXEDRC:POST CONSUMER RECYCLED TIRES** [ **CARBON BLACK** BM-1 | CAN | EYE | MAM | PHY **STYRENE BUTADIENE RUBBER (BENZENE, ETHENYL-, POLYMER WITH 1,3-BUTADIENE)** LT-UNK **NATURAL RUBBER** LT-UNK | RES **ZINC OXIDE** BM-1 | END | MUL | AQU | MAM | REP **FILLERS, ACCELERATORS, AND OTHER ADDITIVES** ] **CONCRETE ADDITIVE PLASTICIZER** [ **WATER** BM-4 **POLIGNATE SODIUM** LT-UNK ] **ADDITIVE 1** [ **WATER** BM-4 **CALCIUM LIGNOSULFONATE** LT-UNK ]

Number of Greenscreen BM-4/BM3 contents ... 5

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

Nanomaterial ... Yes

**INVENTORY AND SCREENING NOTES:**

Special Conditions applied: [GeologicalMaterial]

Special Conditions applied: [MixedRecycledContent]

This HPD lists all the ingredients/substances that exceed the declared threshold. Ingredients below the declared threshold do not need to be reported on the HPD. This inventory was made with primary information from Cemex CTCC (Mexico). Actual material was not tested therefore any information about residuals and impurities is listed simply as a reference based on scientific literature in Pharos and the Toxnot databases. The presence of the residual or impurity substance can not be confirmed through the listing in this HPD. Cemex CTCC has made its best effort to collect product substance information and comply with the HPD format. Any errors are simply mistakes and notification of the Cemex contact should be made.

**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: Inherently non-emitting source per LEED

EPD: Type III Environmental Product Declaration (EPD) by Labeling Sustainability

**CONSISTENCY WITH OTHER PROGRAMS**

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared  
VERIFIER:  
VERIFICATION #:

SCREENING DATE: 2024-02-12  
PUBLISHED DATE: 2024-03-07  
EXPIRY DATE: 2027-02-12

## 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](http://www.hpd-collaborative.org/hpd-2-3-standard)

### FINE AGGREGATE

#: 30.0000 - 45.0000

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Geologically Derived Material

RESIDUALS AND IMPURITIES NOTES: The threshold applied to Residuals and Impurities (R/I) is the same as the threshold applied to intentionally added substances, in terms of level, i.e., 100 ppm or 1000 ppm. Residuals and impurities present below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data as declared in the common product database or in 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. The main databases used for researching potential residuals and impurities are Pharos and PubChem (formerly Toxnot).

OTHER MATERIAL NOTES: River sand

### QUARTZ

ID: 14808-60-7

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2024-02-12 4:28:25

#: 99.0000

GreenScreen: BM-1

RC: UNK

NANO: No

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: SOURCES**

Dennen\_1964 HanStone\_HPD IARC\_Silica Mindat\_Quartz PowderTech\_SDS

**NOTES**

"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]

**COURSE AGGREGATE**

#: 15.0000 - 25.0000

PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes	MATERIAL TYPE: Geologically Derived Material
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RESIDUALS AND IMPURITIES NOTES: The threshold applied to Residuals and Impurities (R/I) is the same as the threshold applied to intentionally added substances, in terms of level, i.e., 100 ppm or 1000 ppm. Residuals and impurities present below the declared Inventory Threshold do not need to be reported on the HPD.” This includes average data as declared in the common product database or in 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. The main databases used for researching potential residuals and impurities are Pharos and PubChem (formerly Toxnot).

OTHER MATERIAL NOTES: Basalt: Basalt generally has a composition of 45–52 wt% SiO<sub>2</sub>, 2–5 wt% total alkalis,[ 0.5–2.0 wt% TiO<sub>2</sub>, 5–14 wt% FeO and 14 wt% or more Al<sub>2</sub>O<sub>3</sub>. Contents of CaO are commonly near 10 wt%, those of MgO commonly in the range 5 to 12 wt%.

This is using a generic basalt profile that is not region-specific. The exact composition of the aggregate used in this concrete is unknown.

**BASALT AGGREGATE**

ID: **Geological Material**

HAZARD DATA SOURCE: **HPDC Special Conditions Policy**

%: **90.0000 - 100.0000**      GreenScreen: **Not Required**      RC: **UNK**      NANO: **No**      MATERIAL ROLE: **Filler**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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Hazard Screening is not applicable to this Special Condition

INGREDIENT DESCRIPTION AND COMPOSITION: Basalt generally has a composition of 45–52 wt% SiO<sub>2</sub>, 2–5 wt% total alkalis,[ 0.5–2.0 wt% TiO<sub>2</sub>, 5–14 wt% FeO and 14 wt% or more Al<sub>2</sub>O<sub>3</sub>. Contents of CaO are commonly near 10 wt%, those of MgO commonly in the range 5 to 12 wt%.

COUNTRY OF ORIGIN: Mexico

RADIOACTIVE ELEMENTS: Unknown

POTENTIAL PRESENCE OF TOXIC METALS: Unknown

MATERIAL CONTENT NOTES: In crushed form, basalt also finds use as aggregate in concrete. Crushed basalt aggregates are dense fine-grained rocks that are of very dark color- green or black and are formed when molten lava from deep in the earth's crust rises up and solidifies.

This disclosure does not provide potential presence of radioactive elements which may be found in certain geological materials.  
This disclosure does not provide potential presence of toxic metals which may be found in certain geological materials.

**WATER, RECYCLED AND NON-RECYCLED**    %: **10.0000 - 22.0000**

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

RESIDUALS AND IMPURITIES NOTES: No impurities were registered in the Pharos database.

OTHER MATERIAL NOTES: This is for both recycled and non-recycled water used in Eco Concrete.

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2024-02-12 4:28:25**%: **70.0000**GreenScreen: **BM-4**RC: **None**NANO: **No**SUBSTANCE ROLE: **Diluent**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
EXEMPT	European Union / European Commission (EU EC)	EU - REACH Exemptions  Exempted from REACH Annex IV listing due to intrinsic safety

SUBSTANCE NOTES: This is unrecycled water.

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2024-02-12 4:28:26**%: **30.0000**GreenScreen: **BM-4**RC: **PostC**NANO: **No**SUBSTANCE ROLE: **Diluent**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
EXEMPT	European Union / European Commission (EU EC)	EU - REACH Exemptions  Exempted from REACH Annex IV listing due to intrinsic safety

SUBSTANCE NOTES: Post-consumer recycled water

**CEMEX CEMENT (GENERAL PROFILE)**%: **10.0000 - 15.0000**

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Other: Inorganic Material

RESIDUALS AND IMPURITIES NOTES: The threshold applied to Residuals and Impurities (R/I) is the same as the threshold applied to intentionally added substances, in terms of level, i.e., 100 ppm or 1000 ppm. Residuals and impurities present below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data as declared in the common product database or in 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. The main databases used for researching potential residuals and impurities are Pharos and PubChem (formerly Toxnot).

OTHER MATERIAL NOTES: This is based on primary CEMEX information. This is a general cement profile with percentage ranges because the actual cement content cannot be verified every time the concrete is sold. Cement depends on the plant and location.

Data Quality: Good

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2024-02-12 4:28:26**

#: **40.0000 - 60.0000**      GreenScreen: **BM-2**      RC: **UNK**      NANO: **No**      SUBSTANCE ROLE: **Binder**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
SKI	GHS - Australia	H315 - Causes skin irritation [Skin corrosion/irritation - 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]
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
SKI	GHS - New Zealand	Skin corrosion category 1C
EYE	GHS - New Zealand	Serious eye damage category 1
EYE	GHS - Japan	H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]
EYE	GHS - Australia	H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List  Antimicrobials

SUBSTANCE NOTES: This is a basic profile for cement used in CEMEX ready-mix concrete. It is based on the data from multiple formulations and each concrete mixture may or may not contain the exact ingredients listed.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2024-02-12 4:28:26**

#: **12.0000 - 16.0000**      GreenScreen: **BM-1**      RC: **UNK**      NANO: **No**      SUBSTANCE ROLE: **Filler**

HAZARD TYPE	LIST NAME AND SOURCE	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]
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List  Antimicrobials

SUBSTANCE NOTES: This is a basic profile for cement used in CEMEX ready-mix concrete. It is based on the data from multiple formulations and each concrete mixture may or may not contain the exact ingredients listed.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-02-12 4:28:26**

#: **3.3800** GreenScreen: **BM-2** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
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 (C2CP11)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP11)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products



SUBSTANCE NOTES: This is a basic profile for cement used in CEMEX ready-mix concrete. It is based on the data from multiple formulations and each concrete mixture may or may not contain the exact ingredients listed.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-02-12 4:28:26**

%: **1.9600** GreenScreen: **BM-2** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: This is a basic profile for cement used in CEMEX ready-mix concrete. It is based on the data from multiple formulations and each concrete mixture may or may not contain the exact ingredients listed.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-02-12 4:28:26**

%: **0.6400** GreenScreen: **BM-3dg** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Stabilizer**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: This is a basic profile for cement used in CEMEX ready-mix concrete. It is based on the data from multiple formulations and each concrete mixture may or may not contain the exact ingredients listed.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-02-12 4:28:27**

%: **0.1800** GreenScreen: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: This is a basic profile for cement used in CEMEX ready-mix concrete. It is based on the data from multiple formulations and each concrete mixture may or may not contain the exact ingredients listed.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-02-12 4:28:27**

%: **0.1200** GreenScreen: **BM-2** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: This is a basic profile for cement used in CEMEX ready-mix concrete. It is based on the data from multiple formulations and each concrete mixture may or may not contain the exact ingredients listed.

**SC:MIXEDRC:POST CONSUMER RECYCLED CONCRETE FORM MIXED SOURCES**

%: **10.0000 - 15.0000**

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Other: Post Consumer Recycled Concrete

RESIDUALS AND IMPURITIES NOTES: The threshold applied to Residuals and Impurities (R/I) is the same as the threshold applied to intentionally added substances, in terms of level, i.e., 100 ppm or 1000 ppm. Residuals and impurities present below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data as declared in the common product database or in 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. The main databases used for researching potential residuals and impurities are Pharos and PubChem (formerly Toxnot).

This source of fine aggregate is from mixed sources for post-consumer recycled concrete including the demolition of previous structures and projects. Due to the unknown nature of the material the special condition for mixed recycled content has been applied to this material.

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2024-02-12 4:28:27**

%: **30.0000 - 60.0000**      GreenScreen: **LT-P1**      RC: **PostC**      NANO: **No**      SUBSTANCE ROLE: **Binder**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
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
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The addition of Portland Cement is a general substance for the post-consumer recycled content concrete. All substances & compositions are truly unknown and this is a general guess at best. The recording of substances in this special condition follows the guidance by HPDC on the emerging best practices section, Mixed Recycled Content/SCRC/2018-02-23/2018-12-08.

**RECYCLED CONCRETE**

ID: **Mixed Recycled Content**

HAZARD DATA SOURCE: **HPDC Special Conditions Policy**

%: **30.0000**      GreenScreen: **Not Required**      RC: **PostC**      NANO: **No**      MATERIAL ROLE: **Filler**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
Hazard Screening is not applicable to this Special Condition		

INGREDIENT DESCRIPTION: Post Consumer Concrete from Demolition used as aggregate

ANALYTICAL TESTING: The material was inventoried by weight

BATCH VARIATION: Yes, This would be based on the type of demolition

COUNTRY OF ORIGIN: Demolished public works projects and buildings in Mexico

MATERIAL CONTENT NOTES: The recording of substances in this special condition follows the guidance by HPDC on the emerging best practices section, Mixed Recycled Content/SCRC/2018-02-23/2018-12-08.

Due to the nature of the recycled material This disclosure does not provide information on the potential presence of hazardous substances which may be found in certain mixed recycled materials.

**POST CONSUMER RECYCLED PET**      %: **1.0000 - 5.0000**

**RESIDUALS AND IMPURITIES NOTES:** Residuals are unknown in post-consumer recycled material. The threshold applied to Residuals and Impurities (R/I) is the same as the threshold applied to intentionally added substances, in terms of level, i.e., 100 ppm or 1000 ppm. Residuals and impurities present below the declared Inventory Threshold do not need to be reported on the HPD.” This includes average data as declared in the common product database or in 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. The main databases used for researching potential residuals and impurities are Pharos and PubChem (formerly Toxnot).

**OTHER MATERIAL NOTES:** This is post consumer recycled PET used as aggregate. The exact aggregate composition is unknown. Plastic aggregate (PA) is produced by mechanically separating and processing plastic waste. A life cycle analysis of mixed household plastics shows that mechanical recycling provides a higher net positive environmental impact than the recovery of energy or land-filling. Different types of plastic waste have been used as aggregate, filler or fibre in cement mortar and concrete after mechanical treatment. They include: polyethylene terephthalate (PET) bottles, polyvinyl chloride, PVC pipes, high density polyethylene, HDPE, thermosetting plastics, mixed plastic waste, expanded polystyrene foam, polyurethane foam, polycarbonate, and glass-reinforced plastic.  
Data Quality: Fair due to above mentioned uncertainty.

**POLYETHYLENE TEREPHTHALATE (PET)**

ID: 25038-59-9

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2024-02-12 4:28:27**

%: **90.0000**      GreenScreen: **LT-P1**      RC: **PostC**      NANO: **No**      SUBSTANCE ROLE: **Filler**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

**SUBSTANCE NOTES:** Impurities are unknown since this is post-consumer recycled PET. Plastic aggregate (PA) is produced by mechanically separating and processing plastic waste. A life cycle analysis of mixed household plastics shows that mechanical recycling provides a higher net positive environmental impact than the recovery of energy or land-filling<sup>2-4</sup>. Different types of plastic waste have been used as aggregate, filler or fibre in cement mortar and concrete after mechanical treatment. They include: polyethylene terephthalate (PET) bottles, polyvinyl chloride, PVC pipes, high-density polyethylene, HDPE, thermosetting plastics, mixed plastic waste, expanded polystyrene foam, polyurethane foam, polycarbonate, and glass reinforced plastic.

**FLY ASH**      %: **1.0000 - 5.0000**

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

**RESIDUALS AND IMPURITIES NOTES:** The threshold applied to Residuals and Impurities (R/I) is the same as the threshold applied to intentionally added substances, in terms of level, i.e., 100 ppm or 1000 ppm. Residuals and impurities present below the declared Inventory Threshold do not need to be reported on the HPD.” This includes average data as declared in the common product database or in 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. The main databases used for researching potential residuals and impurities are Pharos and PubChem (formerly Toxnot).

**OTHER MATERIAL NOTES:** Fly ash is a by-product produced from the combustion of coal in electric utility or industrial boilers. Fly ash consists primarily of oxides of silicon, aluminum iron and calcium. Magnesium, potassium, sodium, titanium, and sulfur are also present to a lesser degree. When used as a mineral admixture in concrete, fly ash is classified as either Class C or Class F ash based on its chemical composition.

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2024-02-12 4:28:27**%: **99.0000**GreenScreen: **LT-UNK**RC: **PreC**NANO: **No**SUBSTANCE ROLE: **Filler**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Per the LEED, supplementary cementitious materials, such as fly ash, slag cement and silica fume, are considered pre-consumer recycled content.

### SC:MIXEDRC:POST CONSUMER RECYCLED TIRES %: 0.2500 - 4.0000

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES EVALUATION  
COMPLETED: YesMATERIAL TYPE: Other: Waste  
Tires

RESIDUALS AND IMPURITIES NOTES: The actual nature of this special condition material is unknown. The threshold applied to Residuals and Impurities (R/I) is the same as the threshold applied to intentionally added substances, in terms of level, i.e., 100 ppm or 1000 ppm. Residuals and impurities present below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data as declared in the common product database or in 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. The main databases used for researching potential residuals and impurities are Pharos and PubChem (formerly Toxnot).

OTHER MATERIAL NOTES: A common list of ingredients in recycled tire rubber includes:

Natural rubber 9006-04-6 232-689-0 N/AV 15 – 40

Synthetic rubber 9003-55-8 N/AV N/AV 15 – 40

Carbon black 1333-86-4 215-609-9 N/AV 15 – 40

Zinc oxide 1314-13-2 215-222-5 030-013-00-7 1 – 5

Sulfur 7704-34-9 231-722-6 016-094-00-1 0.1 – 0.5

Fillers, accelerators, anti-ozonants N/AP N/AP N/AP 3 – 7

The five listed ingredients shall be used in this HPD as a general list of what may or may not appear in the recycled tires used in Eco Concrete. Due to the mixed composition and unknown ingredients, the filler and accelerators shall be used as a special condition substance.

Data Quality: Fair due to the uncertainty of the recycled content.

### CARBON BLACK

ID: 1333-86-4

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2024-02-12 4:28:27**%: **15.0000 - 40.0000**GreenScreen: **BM-1**RC: **PostC**NANO: **Yes**SUBSTANCE ROLE: **Filler**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2b - Possibly carcinogenic to humans
EYE	GHS - New Zealand	Eye irritation category 2
CAN	GHS - New Zealand	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]
PHY	GHS - Japan	H251 - Self-heating;; may catch fire [Self-heating substances and mixtures - Category 1]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The recording of substances in this special condition follows the guidance by HPDC on the emerging best practices section, Mixed Recycled Content/SCRC/2018-02-23/2018-12-08.

For more information, see the material special condition: SC: MixedRC:Post Consumer Recycled Tires

**STYRENE BUTADIENE RUBBER (BENZENE, ETHENYL-, POLYMER WITH 1,3-BUTADIENE)**

ID: 9003-55-8

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-02-12 4:28:27**

#: **15.0000 - 40.0000** GreenScreen: **LT-UNK** RC: **PostC** NANO: **No** SUBSTANCE ROLE: **Filler**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The recording of substances in this special condition follows the guidance by HPDC on the emerging best practices section, Mixed Recycled Content/SCRC/2018-02-23/2018-12-08.

For more information, see the material special condition: SC: MixedRC:Post Consumer Recycled Tires

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-02-12 4:28:27**

%: **15.0000 - 40.0000** GreenScreen: **LT-UNK** RC: **PostC** NANO: **No** SUBSTANCE ROLE: **Filler**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The recording of substances in this special condition follows the guidance by HPDC on the emerging best practices section, Mixed Recycled Content/SCRC/2018-02-23/2018-12-08.

For more information, see the material special condition: SC: MixedRC:Post Consumer Recycled Tires

**FILLERS, ACCELERATORS, AND OTHER ADDITIVES**

ID: **Mixed Recycled Content**

HAZARD DATA SOURCE: **HPDC Special Conditions Policy**

%: **3.0000 - 7.0000** GreenScreen: **Not Required** RC: **PostC** NANO: **No** MATERIAL ROLE: **Filler**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
Hazard Screening is not applicable to this Special Condition		

INGREDIENT DESCRIPTION: Post Consumer Recycled Tires

ANALYTICAL TESTING: The substance was inventoried by researching the best available data on recycled tire rubber.

BATCH VARIATION: Yes, Therefore, based on post-consumer recycled tires, tire brands and their composition vary from batch to batch.

COUNTRY OF ORIGIN: Mexico

MATERIAL CONTENT NOTES: The recording of substances in this special condition follows the guidance by HPDC on the emerging best practices section, Mixed Recycled Content/SCRC/2018-02-23/2018-12-08.

For more information, see the material special condition: SC: MixedRC:Post Consumer Recycled Tires

the nature of the product

This disclosure does not provide information on the potential presence of hazardous substances which may be found in certain mixed recycled materials.

**ZINC OXIDE**

ID: **1314-13-2**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-02-12 4:28:28**

%: **1.0000 - 5.0000** GreenScreen: **BM-1** RC: **PostC** NANO: **No** SUBSTANCE ROLE: **Filler**



HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
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]
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
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
REP	GHS - Japan	H361 - Suspected of damaging fertility or the unborn child [Toxic to reproduction - Category 2]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List  Antimicrobials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
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

SUBSTANCE NOTES: The recording of substances in this special condition follows the guidance by HPDC on the emerging best practices section, Mixed Recycled Content/SCRC/2018-02-23/2018-12-08.

For more information, see the material special condition: SC: MixedRC:Post Consumer Recycled Tires

**CONCRETE ADDITIVE PLASTICIZER %: 0.0500 - 0.1000**

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

RESIDUALS AND IMPURITIES NOTES: The threshold applied to Residuals and Impurities (R/I) is the same as the threshold applied to intentionally added substances, in terms of level, i.e., 100 ppm or 1000 ppm. Residuals and impurities present below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data as declared in the common product database or in 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. The main databases used for researching potential residuals and impurities are Pharos and PubChem (formerly Toxnot).

OTHER MATERIAL NOTES: This information is covered by strict intellectual property rights and will not be disclosed by the manufacturer. To complete this HPD peer-reviewed quality data has been used to fill in the gaps. Per the SDS there are no substances listed as hazardous in the additive. The Quartz database and the European Federation of Concrete Admixtures Association (EFCA)- Plastizicer EPD have been used for primary information. Per the EPD:

"Plasticizers and superplasticizers essentially contain either lignosulphonate, naphthalene sulphonate, melamine sulphonate and polycarboxylate/polycarboxylic or mixtures thereof.

Defoaming agents and preservatives are added as minor components and auxiliaries. Active substance concentration lies between 10 and 40% by mass. The typical dosage of plasticizers lies between 0.2 and 1.6% (referred to the finished product) by mass in relation to the cement weight. The typical dosage of superplasticizers lies between 0.4 and 2.0% by mass in relation to the cement weight. The products covered by this EPD typically contain the following proportions by mass of constituent materials and auxiliaries referred to:

Lignosulphonate\*: max. 40 %

Naphthalene sulphonate\*: max. 40 %

Melamine sulphonate\*: max. 45 %

Polycarboxylate\*: max. 45 %

Polyarylether max. 35 %

Na-gluconate max. 35 %

Additives: max. 5 %

Water: approx. 55 - 75 %"

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2024-02-12 4:28:28**%: **50.0000 - 70.0000**GreenScreen: **BM-4**RC: **UNK**NANO: **No**SUBSTANCE ROLE: **Diluent**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
EXEMPT	European Union / European Commission (EU EC)	EU - REACH Exemptions  Exempted from REACH Annex IV listing due to intrinsic safety

SUBSTANCE NOTES: No impurities are registered per the Pharos database.

**POLIGNATE SODIUM**

ID: 8061-51-6

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2024-02-12 4:28:28**%: **30.0000 - 40.0000**GreenScreen: **LT-UNK**RC: **None**NANO: **No**SUBSTANCE ROLE: **Plasticizer**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The manufacturer maintains rigorous intellectual property rights over this additive. To complete this HPD peer-reviewed quality data has been used to fill in the gaps, therefore the actual material used may or may not contain the exact ingredients listed. This information is for screening purposes only.

**ADDITIVE 1**%: **0.0000 - 0.0500**

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: The threshold applied to Residuals and Impurities (R/I) is the same as the threshold applied to intentionally added substances, in terms of level, i.e., 100 ppm or 1000 ppm. Residuals and impurities present below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data as declared in the common product database or in 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. The main databases used for researching potential residuals and impurities are Pharos and PubChem (formerly Toxnot).

OTHER MATERIAL NOTES: This information is covered by strict intellectual property rights and will not be disclosed by the manufacturer. To complete this HPD peer-reviewed quality data has been used to fill in the gaps. Per the SDS there are no substances listed as hazardous in the additive. The Quartz database and the European Federation of Concrete Admixtures Association (EFCA)- Retarder EPD have been used for primary information. Per the EPD:

“The raw materials most frequently used for retarders are: sucrose, gluconates, phosphates, and lignin sulphonates. Preservatives are added as minor components and auxiliaries. Retarders are aqueous solutions of the raw materials or mixes of the raw materials referred to above. Active substance concentration lies between 10 and 30% by mass. The typical dosage of retarders lies between 0.2 and 2.0% by mass in relation to the cement weight. The products covered by this EPD typically contain the following proportions by mass of constituent materials and auxiliaries referred to:

- Sucrose\*: max. 35 %
- Gluconates\*: max. 45 %
- Phosphates\*: max. 60 %
- Lignin sulphonates\*: max. 40 %
- Phosphonic acid\*: max. 10 %
- Tetrapotassium pyrophosphate max. 30 %
- Additives: max. 0.2 %
- Water: approx. 40 - 98 %”

**WATER**

ID: 7732-18-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-02-12 4:28:28**

#: **50.0000 - 60.0000** GreenScreen: **BM-4** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Diluent**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
EXEMPT	European Union / European Commission (EU EC)	EU - REACH Exemptions  Exempted from REACH Annex IV listing due to intrinsic safety

SUBSTANCE NOTES: The actual formula is heavily protected by intellectual property rights. This information is based on peer-reviewed data.

**CALCIUM LIGNOSULFONATE**

ID: 8061-52-7

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-02-12 4:28:28**

#: **30.0000 - 36.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The manufacturer maintains rigorous intellectual property rights over this additive. To complete this HPD peer-reviewed quality data has been used to fill in the gaps, therefore the actual material used may or may not contain the exact ingredients listed. This information is for screening purposes only.

## 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	Inherently non-emitting source per LEED	
CERTIFYING PARTY: Self-declared	ISSUE DATE: 2024-03-07 00:00:00	CERTIFIER OR LAB: None
APPLICABLE FACILITIES: This is not a facility (location-based) certification.	EXPIRY DATE:	
CERTIFICATE URL:		
CERTIFICATION AND COMPLIANCE NOTES: Per the LEED v4.1 standard, concrete is a non-emitting source.		

EPD	Type III Environmental Product Declaration (EPD) by Labeling Sustainability	
CERTIFYING PARTY: Third Party	ISSUE DATE: 2024-03-06 00:00:00	CERTIFIER OR LAB: Labeling Sustainability
APPLICABLE FACILITIES: This product is produced at multiple facilities, please check the registry at <a href="https://www.labelingsustainability.com/epd-registry">https://www.labelingsustainability.com/epd-registry</a> for the exact facility's EPD.	EXPIRY DATE:	
CERTIFICATE URL:		
CERTIFICATION AND COMPLIANCE NOTES: This product is produced at multiple facilities, please check the registry at <a href="https://www.labelingsustainability.com/epd-registry">https://www.labelingsustainability.com/epd-registry</a> for the exact facility's EPD.		

## 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

This inventory was made with primary information from Cemex CTCC (Mexico). Actual material was not tested therefore any information about residuals and impurities is listed simply as a reference based on scientific literature in Pharos and the toxnet databases. The presence of the residual or impurity substance can not be confirmed through the listing in this HPD. Cemex CTCC has made its best effort to collect product substance information and comply with the HPD format. Any errors are simply mistakes and notification of the Cemex contact should be made.

Residuals and impurities are considered in accordance with the HPD Best Practice Guidance, 10.02.17, version 1 "The threshold applied to Residuals and Impurities (R/I) is the same as the threshold applied to intentionally added substances, in terms of level, i.e., 100 ppm or 1000 ppm. Residuals and impurities present below the declared Inventory Threshold do not need to be reported on the HPD." This includes average data as declared in the common product database or in 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. The main databases used for researching potential residuals and impurities are Pharos and PubChem (formerly toxnet). 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.

Several materials followed the special condition for mixed recyclables where the material content is unknown. This includes recycled concrete and recycled tires. The recycled PET is assumed to be primarily PET. The following Emerging Best Practice was followed when recording substances under the special condition.

SPECIAL CONDITION: Mixed Recycled Content  
Version: SC MixedRC/2018-02-23

Every effort has been made to report the substances in this product by the manufacturer to the listed threshold. This is a voluntary, self-reported effort. Any errors or omissions shall be considered human error and therefore reported to the manufacturer. The manufacturer shall not be liable for omissions. A range of percentage of product composition was used in this HPD to hide the actual product composition for proprietary reasons. This is a list of plants that produce the Aparentia Concrete:

ZONA PACIFICO  
CD. GUZMÁN: PD0152 CD.GUZMAN, PD0500 AUTLAN; CD. OBREGÓN: PD0214 CD.OBREGON, PD0342 CONSTELLATION CD.OBREGON 2,

PD0447

CONSTELLATION CD.OBREGON; COLIMA: PD0147 COLIMA; CULIACAN: PD0135 CULIACAN, PD0420 CULIACAN II; ENSENADA: PD0340 EL SAUZAL, PD0445 ENSENADA; GUADALAJARA: PD0083 GUADALAJARA I III, PD0123 TLAJOMULCO, PD0127 MANANTIAL, PD0149 GDL.MATRIZ, PD0150 PLANTA 2 PERIFERICO, PD0154 PLANTA OCOTLAN, PD0174 TESISTAN, PD0280 PLANTA COLOTLAN, PD0339 EL SALTO, PD0406 PLANTA PONIENTE, PD0423 LA PERLA, PD0452 ZAPOPAN III, PD0454 CD. LA GRANJA II, PD0494 PLANTA PONIENTE II, PD0518 TONALA; GUAYMAS: PD0146 GUAYMAS I; HERMOSILLO: PD0196 HERMOSILLO AEROPUERTO, PD0212 HERMOSILLO CENTRO, LA PAZ: PD0272 EOLICO COROMUEL, PD0427 LA PAZ 1, LAGOS DE MORENO: PD0156 LAGOS DE MORENO, PD0418 PARQUE COLINAS; LOS CABOS: PD0428 RIU LOS CABOS, PD0429 SAN JOSE DEL CABO; LOS MOCHIS: PD0179 LOS MOCHIS; MANZANILLO: PD0151 MANZANILLO, PD0278 EL TAMARINDO; MAZATLÁN: PD0195 MAZATLÁN, PD0275 MAZATLAN 2; MEXICALI: PD0170 MEXICALI PALACO, PD0197 MEXICALI PALACO II, PD0290 CONSTELLATION MEXICALI; TEPATITLÁN: PD0131 TEPATITLAN; TEPIC: PD0130 TEPIC, PD0302 CANAL CENTENARIO 2, PD0988 TROYA CANAL CENTENARIO 2; TIJUANA: PD0161 TIJ.VALLE SUR, PD0163 TIJ.GARCIA, PD0167 TIJ.OTAY, PD0220 VIA RAPIDA TIJUANA, PD0341 ALAMAR II, PD0419 SAN PEDRO-TECATE; VALLARTA: PD0159 PUERTO VALLARTA, PD0244 PLANTA CAPOMO, PD0432 TRONCAL SAN PANCHO, PD0434 PLANTA MAYAN, PD0446 TUNELES GUAMUCHIL, PD0563 PUNTA DE MITA

#### ZONA CENTRO

ACAPULCO: PD0076 ACAPULCO (MORTEROS), PD0397 PLAN DE LOS AMATES, PD0983 TROYA ACAPULCO; CUAUTLA: PD0430 CUAUTLA II; CUERNAVACA: PD0193 TEZOYUCA; CDMX: PD0063 CENTRAL, PD0065 CEYLAN, PD0067 LOS REYES, PD0071 XOCHIMILCO, PD0081 HUEHUETOCA V, PD0086 VALLEJO, PD0088 ARMAS, PD0099 MINAS, PD0186 IZTAPALAPA, PD0189 ROJO GOMEZ, PD0190 XALOSTC, PD0237 LA ESTRELLA, PD0282 DF ARMAS II, PD0284 LA ESTRELLA III, PD0293 TLAHUAC, PD0315 CUAUTITLAN II, PD0317 SANTA FE, PD0331 NAUCALPAN II, PD0426 MINAS III, PD0458 ECATEPEC II, PD0464 NAUCALPAN III, PD0495 ECATEPEC IV, PD0556 ZUMPANGO, PD0625 ESTRELLA II, CTCC; LÁZARO CÁRDENAS: PD0526 LÁZARO CÁRDENAS 2; MORELIA: PD0117 MORELIA; PACHUCA: PD0037 TULA V, PD0091 TULA IV, PD0178 HUEJUTLA 2, PD0208 SAHAGUN, PD0481 EMILIANO ZAPATA, PD0481 PACHUCA, PD0482 TIZAYUCA, PD0527 TEPEJI; QUERÉTARO: PD0192 AEROPUERTO QRO, PD0255 CASAS ARA 2, PD0283 LA ESTANCIA, PD0497 QUERÉTARO, PD0498 PARQUE INDUSTRIAL, PD0499 CASAS ARA, PD0528 VIVEICA; SAN JUAN DEL RÍO: PD0505 SAN JUAN DEL RÍO, TIZAPA: PD0243 TIZAPA; TOLUCA: PD0187 TOLUCA, PD0338

ATLACOMULCO,

PD0404 TOLUCA LERMAS; URUAPAN: PD0078 URUAPAN; ZAMORA: PD0153 ZAMORA

#### ZONA NORESTE

AGUASCALIENTES: PD0401 SUR II, PD0615 AGUASC NORTE, PD0616 AGUASC SUR; CD. VICTORIA, PD0510 CD. VICTORIA; CELAYA: PD0286 SAN

MIGUEL DE ALLENDE, PD0444 APASEO, PD0643 CELAYA; COAHUILA NORTE: PD0016 PIEDRAS NEGRAS, PD0032 CASTAÑOS, PD0051 ACUÑA; DURANGO: PD0034 DURANGO; EOLICO SANTIAGO: PD0218 EOLICO SANTIAGO 2, PD0224 EOLICO SANTIAGO 1; IRAPUATO: PD0513 IRAPUATO II, PD0641 IRAPUATO; LAREDO: PD0204 LAREDO; LEÓN: PD0245 SILAO II, PD0407 MICHELLIN, PD0635 LEÓN 1 LIBRAMIENTO, PD0636 LEÓN 2 HILAMAS, PD0638 LEÓN 5 CEMENTOS, PD0640 SILAO; MATAMOROS: PD0038 MATAMOROS II, PD0048 MATAMOROS; MONTERREY: PD0002 SANTA ROSA, PD0007 MTY. I ESCOBEDO, PD0011 MORONES PRIETO, PD0017 CADEREYTA, PD0018 LOS LERMAS, PD0022 INSURGENTES, PD0023 LOS LERMAS A, PD0027 LI-MON, PD0033 RUIZ CORTINEZ, PD0233 SANTA CATARINA, PD0239 TALAVERNA II, PD0246 MONTERREY II, PD0261 NUEVO APODACA, PD0306 NUEVO APODACA 2, PD0411 ZUAZUA, PD0424 Insurgentes II, PD0466 CIUDAD MITRAS, PD0484 VIADUCTO STA CATARINA, PD0549 SANTA ROSA 2; PESQUERIA: PD0436 PESQUERIA, PD0453 PESQUERIA 3; POZA RICA: PD0316 TUXPAN, PD0546 POZA RICA; REYNOSA: PD0052 REYNOSA 1, PD0262 BALCONES II; SALTILLO: PD0029 SALTILLO 1 PERF., PD0232 IKANO SALTILLO, PD0236

ARTEAGA,

PD0301 LOMAS LOURDES, PD0405 PLANTA 4 RAMOS ARIZPE; SAN LUIS POTOSÍ: PD0548 S.L.P PLANTA 1, PD0551 PLANTA CD. VALLES, PD0552 PTA. ZONA INDUSTRI; TAMPICO: PD0506 PLANTA ALTAMIRA; TORREON: PD0035 GOMEZ PALACIOS, PD0036 AEROPUERTO TORREON,

PD0235 PUENTE MIELERAS; ZACATECAS: PD0544 ZACATECAS PLANTA 1; EÓLICO SAN CARLOS: PD0228 SAN CARLOS 1, PD0507 SAN CARLOS

2; EÓLICO FENICIAS: PD0219 EOLICO FENICIAS 2, PD0415 EOLICO FENICIAS 1;

#### ZONA SURESTE

CAMPECHE: PD0061 CAMPECHE, PD0400 CAMPECHE II; CANCUN: PD0055 CANCUN, PD0057 PLAYA DEL CARMEN, PD0188 NIZUC, PD0247 PUERTO MORELOS, PD0270 RIVIERA MAYA, PD0300 PETEMPICH, PD0304 MAYACOBIA II, PD0311 PUERTA DEL MAR II, PD0327 RIVIERA II, PD0403 PETEMPICH II, PD0410 ARCO VIAL, PD0440 VIVEICA PASEO LAS PALMAS, PD0442 CALINTER 2, PD0455 PAAMUL II, PD0502 ARCO VIAL II, PD0509 VILLAS DEL SOL II, PD0665 TULUM; CARDEL-POZA RICA: PD0431 CARDEL-POZA RICA, CARRETERA EJUTLA - PUERTO ESCONDIDO: PD0379 EL GAVILAN; CARRETERA MITLA-TEHUANTEPEC: PD0209 MELITON; CD. DEL CARMEN: PD0326 PUENTE LA UNIDAD 2, PD0440 CD.DEL CARMEN; CHETUMAL: PD0109 CHETUMAL; COATZACOALCOS: PD0203 COATZACOALCOS II, PD0279 TESECHOACAN, PD0399 NUEVO TEAPA, PD0471 COATZACOALCOS, PD0553 PLANTA ACAYUCAN, PD0986 SUCHILAPAN; COZUMEL: PD0056 COZUMEL; EOLICAS: PD0328 ESPINAL - SANTA RITA II, PD0334 4 MILPAS, PD0461 ESPINAL SANTA RITA; EÓLICOS PUEBLA: PD0409 EÓLICOS II; MÉRIDA: PD0058 MERIDA PLANTA II, PD0059 MERIDA PLANTA I, PD0229 MERIDA III, PD0231 MERIDA III, PD0274 VALLADOLID II, PD0441 DZITYA I, PD0451 DZITYA II, PD0992 CAVA DZITYA, PD0993 CAVA PERIFERICO; NUEVO NECAXA: PD0470 SAN MARCOS 2; OAXACA: PD0080 SALINA CRUZ, PD0101 OAXACA, PD0298 SALINA CRUZ II; ORIZABA: PD0092 ORIZABA, PD0116 PLANTA ZONGOLICA, PD0491 PLANTA TIERRA BLANCA; PINOTEPA: PD0046 JAMILTEPEC, PD0389 ZACATEPEC; PUEBLA: PD0316 PLANTA NUEVO NECAXA III, PD0468 PLANTA CHACHAPA, PD0469 ATLIXCO, PD0472 TEPEACA H2, PD0473 SEDENA PUEBLA, PD0474 VIALIDADES PUEBLA I, PD0475 PUEBLA II, PD0476 SAN MARTIN, PD0601 PLANTA AUDI 1, PD0630 CHIPILO; SALINA CRUZ: PD0462 SALINA CRUZ II; TAPACHULA: PD0060 TAPACHULA, PD0310 TAPACHULA II; TLAXCALA: PD0435 APIZACO III; TUXTLA GUTIÉRREZ: PD0200 TUXTLA GUTIERREZ, PD0387 MINI PLANTA CHIAPAS, PD0422 PLANTA ARRIAGA, PD0480 SAN CRISTOBAL, PD0525 TUXTLA GUTIERREZ II, PD0994 PROYECTO TROYA TONALA; VERACRUZ: PD0202 VERACRUZ II, PD0297 PUERTO SECO, PD0336 COYOL I, PD0433 AMPLIACION LAGUNA VERDE, PD0562 API II, PD0999 PROYECTO TROYA; VILLAHERMOSA: PD0183 VILLAHERMOSA, PD0207 SOL DE CARDENAS, PD0268 SAMARIA II, PD0294 VILLAHERMOSA II, PD0391 PLANTA BALANCAN, PD0402 PALENQUE II, PD0477 CARDENAS, PD0984 MEZCALAPA, PD0999 CONCRETEC-TROYA; XALAPA: PD0062 FIDELIDAD, PD0110 JALAPA, PD0226 CD. PRIMAVERA, PD0305 LAS TRANCAS II, PD0386 MISANTLA, PD0987 MADROÑO

Aparentia

**MANUFACTURER INFORMATION**

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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**

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

**GreenScreen (GS)**

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

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](http://www.greenscreenchemicals.org), and Best Practices for Hazard Screening on the HPDC website ([hpd-collaborative.org](http://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*

