

HPD UNIQUE IDENTIFIER: 1128407279616

CLASSIFICATION: 03 05 00 Common Work Results for Concrete

PRODUCT DESCRIPTION: The product density of the ready-mix concrete product covered in this HPD is 2400 kg/m3. Other details, such as strength, and slump value, can't be detailed here because they differ from project to project based on the slight adjustments in mix compositions required by the project specification. Contact Transgulf for additional mix information.

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:
☒ Nested Materials Method	☒ 100 ppm	Completed in 8 of 8 Materials	Characterized ☒ Yes ☐ No
☐ Basic Method	☐ 1,000 ppm	Explanation(s) provided for Residuals/Impurities?	<i>Provided weight and role.</i>
Threshold Disclosed Per	☐ Per GHS SDS	☒ Yes ☐ No	Screened ☒ Yes ☐ No
☐ Material	☐ Other		<i>Provided screening results using HPDC-approved methods.</i>
☒ Product			Identified ☒ Yes ☐ 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

AGGREGATE [LIMESTONE BM-3dg] PORTLAND CEMENT [PORTLAND CEMENT LT-P1 | CAN | END | MAM] POST INDUSTRIAL WASTE/BYPRODUCT INPUTS [BLAST FURNACE SLAG LT-UNK FLY ASH LT-UNK SILICA FUME LT-P1 | CAN | MAM QUARTZ BM-1* | CAN | MAM | GEN] WATER [WATER (PRIMARY CASRN IS 7732-18-5) BM-4] WATERPROOFING LIQUID ADMIXTURE [DODECANOIC ACID LT-UNK | CAN | EYE TRI-ISOBUTYLPHOSPHATE LT-UNK | SKI | EYE | AQU TRIS(2-HYDROXYPROPYL)AMINE LT-UNK | EYE | SKI | AQU POTASSIUM HYDROXIDE LT-P1 | SKI | MAM | EYE] PLASTICISER ADMIXTURE [WATER BM-4 POLIGNATE SODIUM LT-UNK EDETOL LT-UNK TRISODIUM NITRILOTRIACETATE BM-2 | MUL | EYE | CAN | SKI | MAM] WATERPROOFING ADMIXTURE POWDER [CALCIUM STEARATE LT-UNK] CORROSION INHIBITING ADMIXTURE [SODIUM METASILICATE LT-P1 | SKI | EYE | MAM]

Number of Greenscreen BM-4/BM3 contents ... 3

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

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. 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. Disclaimer- 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.

*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

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?

☐ Yes

☒ No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2023-05-30

PUBLISHED DATE: 2023-05-30

EXPIRY DATE: 2026-05-30

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

AGGREGATE	%: 60.0000 - 75.0000	
PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes	MATERIAL TYPE: Geologically Derived Material
RESIDUALS AND IMPURITIES NOTES: 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.		
OTHER MATERIAL NOTES: A percentage range of greater than 10% composition has been used to hide the proprietary mix design.		

LIMESTONE	ID: 1317-65-3	
HAZARD DATA SOURCE: Pharos Chemical and Materials Library	HAZARD SCREENING DATE: 2023-05-30 8:13:28	
%: 99.0000	GreenScreen: BM-3dg	RC: UNK 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 prevalence of recycled content is unknown.

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.

PORTLAND CEMENT	%: 16.0000 - 24.0000	
PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes	MATERIAL TYPE: Polymeric Material

OTHER MATERIAL NOTES: A percentage range of greater than 10% composition has been used to hide the proprietary mix design.

ID: 65997-15-1

POST INDUSTRIAL WASTE/BYPRODUCT INPUTS %: 8.5000 - 23.0000

ID: 65996-69-2

Ready Mix Concrete, 2400 kg/m3

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: 100% Pre consumer/Post Industrial recycled content. The majority of components in Granulated Blast Furnace Slag are various glassy Metallic Silicates (Iron, Calcium, Magnesium, Aluminum, and Titanium Silicates), including: Dicalcium Silicate (Ca2SiO4) 14284-23-2, Merwinite (Ca3MgSi2O8) 13813-64-4, and Gehlenite (Ca2Al2SiO7) 1302-56-3. According to the Pharos Database residuals and impurities are listed at an unknown threshold and can be: "Blast furnace slag is a nonmetallic coproduct produced in the process [of iron production]. It consists primarily of silicates, aluminosilicates, and calcium-alumina-silicates."		

FLY ASH

ID: 68131-74-8

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:29		
%: 28.0000 - 39.0000	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: The chemical composition per the manufacturer's SDS: Silicon Dioxide as SiO2 7631-86-9 45-50%; Alumina as Al2O3 1344-28-1 %; 20-25; Iron as Fe2O3 1309-37-1 8-12; Sulfur Trioxide as SO3 7446-11-9 0.5-0.8%; Calcium Oxide as CaCO 1305-78-8 6-9%; Alkali as Na2O (eq) 1313-59-3 1.5-1.8%; Magnesium Oxide as MgO 1309-48-4 3.5-3.9%				

SILICA FUME

ID: 69012-64-2

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:30		
%: 5.8200 - 6.4600	GreenScreen: LT-P1	RC: PreC	NANO: No	SUBSTANCE ROLE: Abrasion resistance
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]		
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		
None found		No listings found on Additional Hazard Lists		

SUBSTANCE NOTES: Silica fume is a byproduct in the carbothermic reduction of high-purity quartz with carbonaceous materials like coal, coke, wood-chips, in electric arc furnaces in the production of silicon and ferrosilicon alloys.

QUARTZ

ID: 14808-60-7

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:30		
%: 1.0000 - 2.0000	GreenScreen: BM-1	RC: UNK	NANO: No	SUBSTANCE ROLE: Impurity
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: This impurity is listed in both the manufacturer SDS for the fly ash and silica fume. For silica fume the following hazard listing was included: The product may contain small amounts of crystalline quartz (< 0.5 %). The amount of respirable crystalline silica (quartz, cristobalite) in the product determined by X-ray diffraction is below 0.1 % and does not trigger any hazard classification. 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.

****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.

WATER			%: 5.0000 - 7.0000		
PRODUCT THRESHOLD: 100 ppm		RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes		MATERIAL TYPE: Other: Water	
RESIDUALS AND IMPURITIES NOTES: 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.					
OTHER MATERIAL NOTES: No residuals or impurities are registered for this substance per the Pharos database.					

WATER (PRIMARY CASRN IS 7732-18-5)			ID: 558440-22-5	
HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:30		
%: 100.0000	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: 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.

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED:
Yes

MATERIAL TYPE: Polymeric
Material

RESIDUALS AND IMPURITIES NOTES: 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.

OTHER MATERIAL NOTES:

DODECANOIC ACID

ID: 143-07-7

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:31		
%: 15.0000 - 40.0000	GreenScreen: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Water resistance
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
CAN	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value		
EYE	GHS - New Zealand	Eye irritation category 2		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022		
		Cosmetics & Personal Care Products		
SUBSTANCE NOTES: The actual percentage range is covered as intellectual property rights by the manufacturer.				

TRI-ISOBUTYLPHOSPHATE

ID: 126-71-6

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:31		
%: 18.0000 - 35.0000	GreenScreen: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Defoamer
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization		
EYE	GHS - New Zealand	Eye irritation category 2		
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3		
SKI	GHS - New Zealand	Skin sensitisation category 1		

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals Flame Retardants
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Core Restrictions
SUBSTANCE NOTES: The actual percentage range is covered for intellectual property rights.		

TRIS(2-HYDROXYPROPYL)AMINE

ID: **122-20-3**

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:32		
%: 5.0000 - 20.0000	GreenScreen: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Emulsifier
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1		H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]	
SKI	GHS - New Zealand		Skin irritation category 2	
SKI	GHS - Australia		H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]	
EYE	GHS - New Zealand		Serious eye damage category 1	
SKI	GHS - Japan		H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]	
AQU	GHS - New Zealand		Hazardous to the aquatic environment - chronic category 3	
EYE	GHS - Japan		H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2A]	
EYE	GHS - Australia		H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No listings found on Additional Hazard Lists	
SUBSTANCE NOTES: This substance is covered by intellectual property.				

POTASSIUM HYDROXIDE

ID: **1310-58-3**

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:31		
%: 5.0000 - 15.0000	GreenScreen: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Buffer

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
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]
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]
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	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]
SKI	GHS - Korea	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1]
SKI	GHS - New Zealand	Skin corrosion category 1B
MAM	GHS - Korea	H301 - Toxic if swallowed [Acute toxicity (oral) - Category 3]
MAM	GHS - New Zealand	Acute oral toxicity category 3
MAM	GHS - Japan	H301 - Toxic if swallowed [Acute Toxicity (oral) - Category 3]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Cosmetics & Personal Care Products
SUBSTANCE NOTES: This substance is covered by intellectual property right.		

PLASTICISER ADMIXTURE %: 0.2000 - 2.0000

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

RESIDUALS AND IMPURITIES NOTES: 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.

OTHER MATERIAL NOTES:

WATER

ID: 7732-18-5

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:32		
?: 60.0000 - 75.0000	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 residuals or impurities are registered for this substance per the Pharos database.				

POLIGNATE SODIUM				ID: 8061-51-6
HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:32		
?: 25.0000 - 35.0000	GreenScreen: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Dispersant
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 CAS RN given by the manufacturer is a material-level CAS RN. After research, this is the best available description of that substance based on Pharos and PubChem databases. The actual material may or may not contain this substance.				

EDETOL				ID: 102-60-3
HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:32		
%: 0.5000 - 1.5000	GreenScreen: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Defoamer
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 CAS RN given by the manufacturer is a material-level CAS RN. After research, this is the best available description of that substance based on Pharos and PubChem databases. The actual material may or may not contain this substance.				

TRISODIUM NITRILOTRIACETATE				ID: 5064-31-3
HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:33		
?: 0.0100 - 0.5000	GreenScreen: BM-2	RC: None	NANO: No	SUBSTANCE ROLE: Antimicrobial Pesticide

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
EYE	GHS - Australia	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
CAN	GHS - New Zealand	Carcinogenicity category 2
CAN	GHS - Japan	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
SKI	GHS - New Zealand	Skin corrosion category 1C
EYE	GHS - New Zealand	Serious eye damage category 1
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen
MAM	GHS - Japan	H371 - May cause damage to organs [Specific target organs/systemic toxicity following single exposure - Category 2]
CAN	GHS - Australia	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The CAS RN given by the manufacturer is a material-level CAS RN. After research, this is the best available description of that substance based on Pharos and PubChem databases. The actual material may or may not contain this substance.

WATERPROOFING ADMIXTURE
POWDER

%: 0.1600 - 0.4000

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: 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.

OTHER MATERIAL NOTES:

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:33		
%: 100.0000	GreenScreen: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Water resistance
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 CAS RN given by the manufacturer is a mixture-level CAS RN. After research, this is the best available description of that substance based on Pharos and PubChem databases. The actual material may or may not contain this substance.

CORROSION INHIBITING

ADMIXTURE

%: 0.0400

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

RESIDUALS AND IMPURITIES NOTES: 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.

OTHER MATERIAL NOTES:

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-05-30 8:13:33		
%: 100.0000	GreenScreen: LT-P1	RC: UNK	NANO: No	SUBSTANCE ROLE: Corrosion inhibitor
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
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]		
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	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]		
MAM	GHS - Japan	H371 - May cause damage to organs [Specific target organs/systemic toxicity following single exposure - Category 2]		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals		
		Antimicrobials		

SUBSTANCE NOTES: Percentages >10% are used to disguise formulas covered as intellectual property. This additive is covered under strict intellectual property rights by the manufacturer.

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: 2023-05-19	CERTIFIER OR LAB: None
APPLICABLE FACILITIES: This is not a facility-based declaration.	EXPIRY DATE:	
CERTIFICATE URL:		
CERTIFICATION AND COMPLIANCE NOTES: Per LEED: A Product is an inherently nonemitting source of VOCs (stone, ceramic, powder-coated metals, plated or anodized metal, glass, concrete, clay brick, and unfinished or untreated solid wood) and has no binders, surface coatings, or sealants that include organic chemicals. This concrete does not contain organic chemicals as binders.		

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

No accessories are included with this product.
This ready-mix concrete product is produced at plants in UAE and KSA

MANUFACTURER INFORMATION

MANUFACTURER: Transgulf Readymix Concrete Co. (LLC)
ADDRESS: Jebel Ali Industrial Area, Al Yalaysi Street
P.O. Box 94193
Dubai Dubai 00000, United Arab Emirates
WEBSITE: <https://transgulfreadymix.com>

CONTACT NAME: Mr. Ahmad Khartabil
TITLE: Technical Manager
PHONE: +971 4 8858827
EMAIL: ahmad.khartabil@tgrmcc.com

The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

KEY

Hazard Types

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

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible 1 (Possible Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS No GreenScreen.
BM-U 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, 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

