

HPD UNIQUE IDENTIFIER: 111374460928

CLASSIFICATION: 12 42 13 Ceramics

PRODUCT DESCRIPTION: Ceramic Sanitaryware lines covered in this HPD are kitchen and bathroom products such as Water Closet and Tank, Bidet, Urinal, Sink, Bathtub, Pedestal, Washbasin, etc. These products are manufactured with up to 10% recycled materials from the waste generated during the production process, which contributes to the reduce, re-use and recycling concept of waste.

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 7 of 7 Materials	Characterized ☒ Yes ☐ No
☐ Basic Method	☐ 1,000 ppm	Explanation(s) provided for Residuals/Impurities?	Provided weight and role.
Threshold Disclosed Per	☐ Per GHS SDS	☒ Yes ☐ No	Screened ☒ Yes ☐ No
☐ Material	☐ Other		Provided screening results using HPDC-approved methods.
☒ Product			Identified ☒ Yes ☐ No
			Provided name and CAS RN or other identifier.

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

NESTED MATERIAL | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY

GREENSCREEN SCORE | HAZARD TYPE

FLUX [FELDSPAR LT-UNK | MAM] BALL CLAY [BALL CLAY] BODY COMPONENT 2 [QUARTZ BM-1* | CAN | MAM | GEN] CLAY [KAOLIN LT-UNK | CAN QUARTZ BM-1* | CAN | MAM | GEN] BODY COMPONENT 1 [KAOLIN LT-UNK | CAN QUARTZ BM-1* | CAN | MAM | GEN] RECOVERED SCRAP [CRUSHED PITCHER POWDER] ADDITIVES [SODIUM CARBONATE LT-UNK | EYE | MAM | SKI BARIUM CARBONATE BM-2 | MAM]

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

Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... None

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Special Conditions applied: [GeologicalMaterial]

Special Conditions applied: [MixedRecycledContent]

This HPD was produced using primary information from the manufacturer, including CAS numbers and SDS when needed. The manufacturer has made every effort to report the substances in this product to the listed threshold. This is a voluntary, self-reported effort. Any errors or omissions shall be considered a human error and therefore reported to the manufacturer. The manufacturer shall not be liable for omissions.

*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.

VOC emissions: Inherently non-emitting source per LEED

Antimicrobial: Antimicrobial

DT55 – Pre Consumer Recycle Material: Recycled Content

Regulatory Specifications: Regulatory Specifications

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

☐ Yes
☒ No

VERIFIER:
VERIFICATION #:

PUBLISHED DATE: 2023-11-29
EXPIRY DATE: 2026-11-22

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

FLUX		%: 30.0000 - 35.0000	
PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes	MATERIAL TYPE: Geologically Derived Material	
RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 “The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD.” This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNET) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.			
OTHER MATERIAL NOTES: Percentages are shown due to batch variation.			

FELDSPAR				ID: 68476-25-5
HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2023-11-22 3:40:14	
%: 99.0000	GreenScreen: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Flux
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
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: Feldspar is "an inorganic substance that is the reaction product of high temperature calcination in which aluminum oxide, barium oxide, calcium oxide, magnesium oxide, silicon oxide, and strontium oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix." (EPA SRS)-Per Pharos Database.				

BALL CLAY		%: 25.0000 - 30.0000	
PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: No	MATERIAL TYPE: Geologically Derived Material	
RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 “The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD.” This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNET) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.			

OTHER MATERIAL NOTES: Percentages are shown in range due to the variable composition of naturally occurring minerals.

BALL CLAY

ID: Geological Material

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

%: 100.0000	GreenScreen: Not Required	RC: UNK	NANO: No	MATERIAL ROLE: Ceramic body
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HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

Hazard Screening is not applicable to this Special Condition

INGREDIENT DESCRIPTION AND COMPOSITION: Ball clays are kaolinitic clays that commonly consist of 20–80% kaolinite, 10–25% mica, 6–65% quartz, as well as organic matter. (IMERYS)

COUNTRY OF ORIGIN: Unknown

RADIOACTIVE ELEMENTS: Unknown

POTENTIAL PRESENCE OF TOXIC METALS: Unknown

MATERIAL CONTENT NOTES: Ball clay is a silicate clay rock of which kaolinite is the main constituent: $\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$. (IMERYS)

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.

BODY COMPONENT 2

%: 10.0000 - 15.0000

PRODUCT THRESHOLD: 100
ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED:
Yes

MATERIAL TYPE: Geologically Derived Material

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

OTHER MATERIAL NOTES: Percentages specified are typical and do not represent a specification.

QUARTZ

ID: 14808-60-7

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

HAZARD SCREENING DATE: 2023-11-22 3:40:15

%: 99.0000 GreenScreen: BM-1 RC: UNK NANO: No SUBSTANCE ROLE: Ceramic body

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: "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]-Per Pharos Database

****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.

CLAY	%: 10.0000	
PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes	MATERIAL TYPE: Geologically Derived Material

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

OTHER MATERIAL NOTES:

KAOLIN				ID: 1332-58-7
HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-11-22 3:40:15		
%: 95.0000 - 99.0000	GreenScreen: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Ceramic body
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
None found	No listings found on Additional Hazard Lists			
SUBSTANCE NOTES: Residuals or impurities are noted in this HPD when greater than or equal to 100 ppm.				

QUARTZ

ID: 14808-60-7

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2023-11-22 3:40:15

%: 0.1000 - 4.0000

GreenScreen: BM-1

RC: None

NANO: No

SUBSTANCE ROLE: Impurity/Residual

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: Kaolin is a naturally occurring mineral, which may contain amounts of crystalline silica typically 0.1-4%. (Edgar MSDS)-Per Pharos Database.

**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.

BODY COMPONENT 1 %: 10.0000

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

OTHER MATERIAL NOTES:

KAOLIN ID: 1332-58-7

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2023-11-22 3:40:15

%: 95.0000 - 99.0000 GreenScreen: LT-UNK RC: UNK NANO: No SUBSTANCE ROLE: Ceramic body

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

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

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

QUARTZ ID: 14808-60-7

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2023-11-22 3:40:15

%: 0.0000 - 4.0000 GreenScreen: BM-1 RC: None NANO: No SUBSTANCE ROLE: Impurity/Residual

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: Kaolin is a naturally occurring mineral, which may contain amounts of crystalline silica typically 0.1-4%. (Edgar MSDS)-Per Pharos Database.

**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.

RECOVERED SCRAP %: 5.0000 - 10.0000

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: No MATERIAL TYPE: Other: Waste/Scrap

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities are considered for this material.

OTHER MATERIAL NOTES: This material is 100% pre-consumer, originating from scrap or broken pieces of fired ceramic pitchers during the manufacturing process. These broken pieces are crushed into a powder form and can be re-used as raw material in sanitaryware manufacturing.

CRUSHED PITCHER POWDER			ID: Mixed Recycled Content	
HAZARD DATA SOURCE: HPDC Special Conditions Policy				
%: 100.0000	GreenScreen: Not Required	RC: PreC	NANO: No	MATERIAL ROLE: Filler
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
Hazard Screening is not applicable to this Special Condition				
INGREDIENT DESCRIPTION: A ceramic waste, typically consist of clayey minerals (clay and kaolin), quartz, and feldspar.				
ANALYTICAL TESTING: For this product, no actual material has been tested. The manufacturer has made every effort to report the all contents of this material. This is a voluntary, self-reported effort.				
BATCH VARIATION: Yes, A batch variation may arise due to variable product thickness, models, types or due to color selection.				
COUNTRY OF ORIGIN:				
MATERIAL CONTENT NOTES: It is 100% Pre-consumer material. Pitchers are pieces of pottery that have been broken during manufacturing and are crushed to form powder. It has proved to be a potential raw material and can be re-used as a low-percentage addition to virgin raw materials.				
This disclosure does not provide information on the potential presence of hazardous substances which may be found in certain mixed recycled materials.				
This disclosure does not provide information on the potential presence of hazardous substances which may be found in certain mixed recycled materials.				

ADDITIVES		%: 0.0100 - 0.3000	
PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes	MATERIAL TYPE: Other: Inorganic Compound	
RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are considered following the HPD Best Practice Guidance, 10.02.17, version 1 “The threshold applied to Residuals and Impurities (R/I) is the same as that applied to intentionally added substances, i.e., 100 ppm or 1000 ppm. Residuals and impurities below the declared Inventory Threshold do not need to be reported on the HPD.” This includes average data declared in the common product database or peer-reviewed scientific articles. For this product, no actual material has been tested. Therefore, residuals and impurities are for informational purposes only and are not a guarantee of presence in the actual building material. Pharos and PubChem (formerly TOXNET) are the main databases for researching potential residuals and impurities. Any R/I above the threshold shall be listed on the HPD; otherwise, if none are listed, then no residuals or impurities are common in that substance above the threshold.			
OTHER MATERIAL NOTES: To protect confidentiality, percentages are shown in range.			

SODIUM CARBONATE			ID: 497-19-8	
HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2023-11-22 3:40:15	
%: 66.0000	GreenScreen: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Dispersant

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]
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
SKI	GHS - New Zealand	Skin irritation category 2
EYE	GHS - New Zealand	Eye irritation category 2
EYE	GHS - Japan	H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]
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: No residuals or impurities at or above 100 ppm.

BARIUM CARBONATE

ID: 513-77-9

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-11-22 3:40:15**

%: **34.0000** GreenScreen: **BM-2** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Flux**

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]
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
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 Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products
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: No residuals or impurities at or above 100 ppm.

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 APPLICABLE FACILITIES: RAK Ceramics PJSC P.O. Box: 4714, Ras Al Khaimah, United Arab Emirates CERTIFICATE URL:	ISSUE DATE: 2023-11-25 EXPIRY DATE:	CERTIFIER OR LAB: None
CERTIFICATION AND COMPLIANCE NOTES: Per the LEED v4.1 standard for Building Design and Construction, Ceramic is a non-emitting source therefore, no VOC testing for emissions is necessary.		
ANTIMICROBIAL	Antimicrobial	
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: R.A.K. Ceramics P.J.S.C P.O. Box 4714, Ras Al Khaimah, United Arab Emirates CERTIFICATE URL:	ISSUE DATE: 2021-04-07 EXPIRY DATE:	CERTIFIER OR LAB: Middle East Testing Services L.L.C
CERTIFICATION AND COMPLIANCE NOTES: Doc No: METS-R 1535-01/2021		
DT55 – PRE CONSUMER RECYCLE MATERIAL	Recycled Content	
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: RAK Ceramics PJSC P.O. BOX 4714, RAS AL KHAIMAH, UNITED ARAB EMIRATES CERTIFICATE URL:	ISSUE DATE: 2023-03-29 EXPIRY DATE:	CERTIFIER OR LAB: CERTIQUALITY
CERTIFICATION AND COMPLIANCE NOTES: This certificate compiles with DT 55 Ed 02 100915; "technical document for product certification of construction products with the specified percentage of recycled material: ceramic tiles and semi-finished items for the production thereof". Certificate No: 4393		
REGULATORY SPECIFICATIONS	Regulatory Specifications	
CERTIFYING PARTY: Self-declared APPLICABLE FACILITIES: RAK Ceramics PJSC P.O. Box: 4714, Ras Al Khaimah, United Arab Emirates CERTIFICATE URL:	ISSUE DATE: 2023-05-15 EXPIRY DATE:	CERTIFIER OR LAB: RAK CERAMICS
CERTIFICATION AND COMPLIANCE NOTES: Doc No: CL/7259/2023. This declaration includes various characteristics and specifications of tiles including dimensions, water absorption, breaking strength, resistance to surface abrasion, low conc. acids and alkalis, stains, thermal shock etc, under standard test method "BS EN ISO 10545"		
BS EN ISO 10545-15:1997 WITH ICP-OES	Metal Release Analysis	
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: RAK Ceramics PJSC P.O. Box: 4714, Ras Al Khaimah, United Arab Emirates CERTIFICATE URL:	ISSUE DATE: 2020-02-19 EXPIRY DATE:	CERTIFIER OR LAB: Lucideon
CERTIFICATION AND COMPLIANCE NOTES: ICP-OES is a fast elemental analysis method capable of testing large sample batches in a short period of time. With ICP-OES testing numerous metals, such as aluminum, lead, nickel, titanium, copper, cobalt, stainless steel, and alloy steels, ICP-OES has the ability to detect elements at trace levels.		

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 were added because this must be installed by professional installers who will use their tools and methods. Exact methods are determined by site-specific conditions, therefore, additional tools and products are unknown. For manufacturer-specific installation instructions, please visit the website: www.rakceramics.com

MANUFACTURER INFORMATION

MANUFACTURER: RAK Ceramics
ADDRESS: RAK Ceramics P.J.S.C. P.O. Box 4714, Sheikh
 Muhammad Bin Salem Rd Al Jazirah Al Hamra, Ras Al-Khaimah
 Ras Al-Khaimah, Ras Al-Khaimah P.O. Box 4714
COUNTRY: United Arab Emirates

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

KEY

Hazard Types

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

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-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

