

HPD UNIQUE IDENTIFIER: 1089249280

CLASSIFICATION: 12 36 61.19 Quartz Agglomerate Countertops

PRODUCT DESCRIPTION: Radianz® Quartz Surfaces is comprised of natural quartz, unsaturated polyester resins, and mineral pigments fused together by a precision compression molding process to create a high-quality product. Natural quartz, with purity of 99.9%, is the main component that results in a non-porous and ultra-durable material that is ideal for countertops, kitchen systems, furniture, wallcladding and various other interior finishes for residential and commercial applications. Manufacturer of Radianz®, Lotte is committed to be the "Green Movement" and is constantly striving to improve the environment and keep our nature pristine.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

<p><b>Inventory Reporting Format</b></p> <p><input type="radio"/> Nested Materials Method</p> <p><input checked="" type="radio"/> Basic Method</p> <p><b>Threshold Disclosed Per</b></p> <p><input type="radio"/> Material</p> <p><input checked="" type="radio"/> Product</p>	<p><b>Threshold Level</b></p> <p><input type="radio"/> 100 ppm</p> <p><input checked="" type="radio"/> 1,000 ppm</p> <p><input type="radio"/> Per GHS SDS</p> <p><input type="radio"/> Other</p>	<p><b>Residuals/Impurities Evaluation</b></p> <p><input checked="" type="radio"/> Completed</p> <p><input type="radio"/> Partially Completed</p> <p><input type="radio"/> Not Completed</p> <p><b>Explanation(s) provided :</b></p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>	<p><i>For all contents above the threshold, the manufacturer has:</i></p> <p><b>Characterized</b> <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>Provided weight and role.</i></p> <p><b>Screened</b> <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>Provided screening results using HPDC-approved methods.</i></p> <p><b>Identified</b> <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p><i>Provided name and CAS RN or other identifier.</i></p>
--	--	--	---

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.

**PRODUCT | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY**  
**GREENSCREEN SCORE | HAZARD TYPE**

**RADIANZ® QUARTZ SURFACES | QUARTZ** BM-1 | CAN | MAM | GEN  
**GRANITE** NoGS **POLYESTER** NoGS **TITANIUM DIOXIDE** LT-1 | CAN |  
END | MAM **CARBON BLACK** BM-1 | CAN | EYE | MAM **UNDISCLOSED**  
**LT-1** | CAN | RES | GEN | EYE | MAM | REP **UNDISCLOSED** **LT-P1** | MUL  
| EYE | AQU | MAM | PHY **UNDISCLOSED** **LT-UNK** | SKI | EYE  
**FERUMOXYTOL** **LT-UNK** | CAN **IRON OXIDE (FE2O3), HYDRATE** NoGS  
**NICKEL RUTILE YELLOW** **LT-1** | CAN **HYDRATED FERRIC OXIDE** **LT-UNK** ]

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

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Substances percent weight are provided

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: GreenGuard - Gold (previously Children & Schools)

Other: ANSI/NSF 51-2012 Food equipment materials

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?

Yes

No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2023-07-20

PUBLISHED DATE: 2023-10-11

EXPIRY DATE: 2026-07-20

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)

**RADIANZ® QUARTZ SURFACES**

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

RESIDUALS AND IMPURITIES NOTES: The material inputs for Radianz® product are reacted in the manufacturing process preventing any exposure of health hazards of the final product. Radianz® products have earned GREENGUARD® and GREENGUARD® GOLD certifications as low-emitting interior building products, which ensures that the products comply with strict chemical and particle emission criteria for indoor air quality.

OTHER PRODUCT NOTES: All suppliers of the raw materials used in the manufacture of Radianz® are supervised under a strict Lotte quality control program. Materials are inspected by both internal/external examining bodies RoHS (Restricting the use of Hazardous Substances) and NSF (National Sanitation Foundation, USA) ensuring that Staron® manufacturing meets the environmental standards required.

**QUARTZ**

ID: 14808-60-7

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

HAZARD SCREENING DATE: **2023-07-20 12:03:13**

?: **85.0000 - 95.0000**

GreenScreen: **BM-1**

RC: **None**

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: Inorganic reinforcing filler - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.

## GRANITE

ID: **Not registered**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-07-20 12:03:13**

%: **0.0000 - 30.0000** GreenScreen: **NoGS** RC: **None** 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: Inorganic reinforcing filler - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.

**POLYESTER**

ID: 113669-95-7

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-07-20 12:03:13**

#: **3.0000 - 10.0000** GreenScreen: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

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: Polymer - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.

**TITANIUM DIOXIDE**

ID: 13463-67-7

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-07-20 12:03:14**

#: **0.0000 - 1.0000** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CAN	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
CAN	IARC	Group 2b - Possibly carcinogenic to humans
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
CAN	GHS - Japan	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen

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  Formulated Consumer 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
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE Safer Chemicals Ingredients list (SCIL)  Colorants - Green Circle (Verified Low Concern)

SUBSTANCE NOTES: Colorant - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.

**CARBON BLACK**

ID: 1333-86-4

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-07-20 12:03:14**

%: **0.0000 - 1.0000** GreenScreen: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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 - inhaled from occupational sources
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]

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

**SUBSTANCE NOTES:** Colorant - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-07-20 12:03:13**

#: **0.0000 - 1.0000** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Tensile strength additive**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
GEN	MAK	Germ Cell Mutagen 3a
CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]
EYE	GHS - Australia	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
REP	GHS - Australia	H360Fd - May damage fertility. Suspected of damaging the unborn child [Reproductive toxicity - Category 1A or 1B]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  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: Additive - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2023-07-20 12:03:13</b>			
%: <b>0.0000 - 1.0000</b>	GreenScreen: <b>LT-P1</b>	RC: <b>None</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Curing agent</b>

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
EYE	GHS - New Zealand	Eye irritation category 2
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
MAM	GHS - Japan	H371 - May cause damage to organs [Specific target organs/systemic toxicity following single exposure - Category 2]
AQU	GHS - Japan	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]
AQU	GHS - Japan	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
PHY	GHS - New Zealand	Organic peroxide type C
PHY	GHS - Japan	H242 - Heating may cause a fire [Organic peroxides - Type C]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Curing agent - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.

## UNDISCLOSED

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-07-20 12:03:14**

%: **0.0000 - 1.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Curing agent**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
SKI	GHS - New Zealand	Skin irritation category 2
EYE	GHS - New Zealand	Eye irritation category 2
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Cross link agent - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.



**FERUMOXYTOL**

ID: 1309-38-2

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-07-20 12:03:14**

%: <b>0.0000 - 1.0000</b>	GreenScreen: <b>LT-UNK</b>	RC: <b>None</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Pigment</b>
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: Colorant - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.

**IRON OXIDE (FE2O3), HYDRATE**

ID: 12259-21-1

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-07-20 12:03:14**

%: <b>0.0000 - 1.0000</b>	GreenScreen: <b>NoGS</b>	RC: <b>None</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Pigment</b>
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: Colorant - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.

**NICKEL RUTILE YELLOW**

ID: 8007-18-9

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-07-20 12:03:15**

%: <b>0.0000 - 1.0000</b>	GreenScreen: <b>LT-1</b>	RC: <b>None</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Pigment</b>
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
CAN	IARC	Group 1 - Agent is Carcinogenic to humans		
CAN	CA EPA - Prop 65	Carcinogen		
CAN	US NIH - Report on Carcinogens	Known to be a human Carcinogen		

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  Footwear, Apparel & Jewelry Products

SUBSTANCE NOTES: Colorant - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.

## HYDRATED FERRIC OXIDE

ID: 20344-49-4

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-07-20 12:03:16**

%: **0.0000 - 1.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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: Colorant - percent range would slightly vary due to various colors available. The material inputs for Radianz® Quartz (agglomerated stone) product are comprised of reacted monomers and resins, inert mineral fillers, and colorants. The final product of Radianz® is nontoxic and non-allergic to humans. Quartz engineered stone, etc. have silicosis concerns during the production, therefore all of this type of materials is to be cut, fabricated, polished, etc. in the presence of water.

## 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	GreenGuard - Gold (previously Children & Schools)	
CERTIFYING PARTY: Third Party	ISSUE DATE: 2007-09-18	CERTIFIER OR LAB: UL
APPLICABLE FACILITIES: Building products and Interior finishes	EXPIRY DATE: 2023-09-18	Environment
CERTIFICATE URL: <a href="https://spot.ul.com/main-app/products/detail/5ad1e81d55b0e82d946a0b6f?page_type=Products%20Catalog">https://spot.ul.com/main-app/products/detail/5ad1e81d55b0e82d946a0b6f?page_type=Products%20Catalog</a>		
CERTIFICATION AND COMPLIANCE NOTES: Greenguard Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings		
OTHER	ANSI/NSF 51-2012 Food equipment materials	
CERTIFYING PARTY: Third Party	ISSUE DATE: 2009-08-25	CERTIFIER OR LAB: NSF
APPLICABLE FACILITIES: Most colors of Radianz® Quartz are NSF/ANSI 51 certified, which proves the product is safe for use in areas of contact with food, such as kitchens and restaurants.	EXPIRY DATE: 2024-08-25	International
CERTIFICATE URL: <a href="http://www.nsf.org/">http://www.nsf.org/</a>		
CERTIFICATION AND COMPLIANCE NOTES: Most colors of Radianz® Quartz are NSF/ANSI 51 certified, which proves the product is safe for use in areas of contact with food, such as kitchens and restaurants.		

## 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

Radianz® is GREENGUARD Gold certified and is therefore scientifically proven to meet some of the world's most rigorous, third-party chemical emission standards – helping reduce indoor air pollution and the risk of chemical exposure while aiding in the creation of healthier indoor environments. GREENGUARD Gold certification standard includes health based criteria for additional chemicals and also requires lower total VOC (volatile organic compounds) emissions levels to ensure products are acceptable for use in environments such as schools and healthcare facilities.

**MANUFACTURER INFORMATION**

**MANUFACTURER:** Lotte Chemical Corp.  
**ADDRESS:** 6 Centerpointe Dr. Suite 100  
 La Palma, CA 90623  
**COUNTRY:** USA

**WEBSITE:** [www.staron.com](http://www.staron.com)  
**CONTACT NAME:** Daniel Hong  
**TITLE:** TS Manager  
**PHONE:** 714-443-0962  
**EMAIL:** [daniel.hong@lotte.net](mailto:daniel.hong@lotte.net)

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

**KEY**

**Hazard Types**

<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*

