



HPD UNIQUE IDENTIFIER: 30725

CLASSIFICATION: 12 36 61.19 Quartz Agglomerate Countertops

PRODUCT DESCRIPTION: VICOSTONE® quartz based engineered stones are produced from up to 93% pure natural quartz aggregates that are adhered with polymer resin with color powder, and have a hardness and flexural strength that is much higher than natural and other engineered stones. With a special and luxurious beauty, VICOSTONE® compound stones are widely used in interior applications such as kitchen countertops, bathroom vanities, wall paneling, flooring, etc.

Section 1: Summary Basic Method / Product Threshold

CONTENT INVENTORY

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

PRODUCT | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY

GREENSCREEN SCORE | HAZARD TYPE

VICOSTONE QUARTZ SURFACE | CRISTOBALITE LT-1 | CAN | MAM | GEN UNDISCLOSED NoGS SODIUM OXIDE BM-2 | LIME BM-2 | SKI | MAM | EYE STYRENE BM-1 | END | CAN | MUL | REP | SKI | EYE | MAM | DEV | GEN | AQU SILICON, ELEMENTAL LT-UNK | MAGNESIUM OXIDE BM-3dg | CAN CI 77346 LT-1 | CAN | RES | GEN DICHROMIUM TRIOXIDE BM-1 | SKI | MAM C.I. PIGMENT BLUE 36 LT-1 | CAN | RES | GEN FERRIC OXIDE BM-1 | CAN | MAM | EYE | SKI UNDISCLOSED BM-1 | TITANIUM DIOXIDE LT-1 | CAN | END | MAM FERROSO FERRIC OXIDE BM-1 | CAN FERRIC OXIDE, YELLOW LT-UNK | FLUOROPHLOGOPITE LT-UNK | ALUMINUM OXIDE BM-2 | MAM MICA LT-UNK | MAM DIPOTASSIUM MONOHYDROXIDE NoGS UNDISCLOSED LT-UNK RUTILE TITANIUM DIOXIDE LT-1 | CAN | MAM TRIMETHOXY Silylpropyl methacrylate LT-UNK | SKI | EYE TETRAETHYL SILICATE LT-UNK | EYE | MAM | SKI METHYL ALCOHOL BM-1 | END | DEV | MUL | REP | PHY | MAM | EYE ETHANOL BM-2 | CAN | END | DEV | REP | PHY | EYE | MAM TERT-BUTYL PEROXYBENZOATE LT-P1 | MUL | EYE | SKI | AQU | MAM | PHY SEBAZINS\_URE, BIS(2,2,6,6-TETRAMETHYL-PIPERIDINYL)-ESTER, REAKTIONSPRODUKT MIT 1,1-DIMETHYLETHYLHYDROPEROXID UND OKTAN LT-UNK OCTABENZONE LT-UNK OXYBENZONE LT-P1 | END | MUL | SKI | AQU CARBON BLACK BM-1 | CAN | EYE | MAM SODIUM SILICATE LT-P1 | END | SKI | EYE ULTRAMARINE (PIGMENT) LT-UNK KAOLIN LT-UNK | CAN SILICON DIOXIDE BM-1 | CAN | MAM ALUMINUM HYDROXIDE, DRIED BM-2 | SKI | EYE ]

Number of Greenscreen BM-4/BM3 contents ... 1

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

A&A Green Phoenix Group Joint Stock Company worked with the HPDC Approved Preparer to confirm that all intentionally added ingredients, residuals and impurities were considered under the preparation of this HPD. This was accomplished by obtaining full formulation disclosure, including residuals and impurities, down to the 1,000 ppm threshold. Due to the proprietary nature of the information, the name and CAS number for certain chemicals have been redacted.

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: UL/GreenGuard Certified

VOC emissions: UL/GreenGuard Gold Certified

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Option 1.

Third Party Verified?

- ☒ Yes
- ☐ No

PREPARER: ToxServices LLC  
VERIFIER: SCS Global Services  
VERIFICATION #: qGE-4634

SCREENING DATE: 2022-11-16  
PUBLISHED DATE: 2022-12-06  
EXPIRY DATE: 2025-11-16

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)

VICOSTONE QUARTZ SURFACE

PRODUCT THRESHOLD: 1000 ppm      RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

RESIDUALS AND IMPURITIES NOTES: A&A Green Phoenix Group Joint Stock Company worked with the HPDC Approved Preparer to confirm that all residuals and impurities were considered under the preparation of this HPD. This was accomplished by obtaining full formulation disclosure, including residuals and impurities, down to the 1,000 ppm threshold.

OTHER PRODUCT NOTES:

CRISTOBALITE ID: 14464-46-1

| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                                   | HAZARD SCREENING DATE: 2022-11-16 18:20:14 |                                                                                                                                                           |                                     |
|-----------------------------------------------------------|-----------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| %: 0.0000 - 100.0000                                      | GreenScreen: LT-1                 | RC: None                                   | NANO: No                                                                                                                                                  | SUBSTANCE ROLE: Structure component |
| HAZARD TYPE                                               | AGENCY AND LIST TITLES            |                                            | 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                                                       | 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                                                                                                              | AGENCY | NOTIFICATION                                 |
|----------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------------|
| None found                                                                                                                       |        | No listings found on Additional Hazard Lists |
| SUBSTANCE NOTES: Weight range exceeds 20% due to an alternate substance (quartz) option for the product's main body composition. |        |                                              |

**QUARTZ**
ID: **14808-60-7**

|                                                                  |                                   |                                                   |                                                                                                                                                           |                                            |
|------------------------------------------------------------------|-----------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                                   | HAZARD SCREENING DATE: <b>2022-11-16 18:20:13</b> |                                                                                                                                                           |                                            |
| %: <b>0.0000 - 100.0000 ALT</b>                                  | GreenScreen: <b>BM-1</b>          | RC: <b>None</b>                                   | NANO: <b>No</b>                                                                                                                                           | SUBSTANCE ROLE: <b>Structure component</b> |
| HAZARD TYPE                                                      | AGENCY AND LIST TITLES            |                                                   | 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                                                              | 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                                              | AGENCY                            |                                                   | NOTIFICATION                                                                                                                                              |                                            |
| None found                                                       |                                   |                                                   | No listings found on Additional Hazard Lists                                                                                                              |                                            |

SUBSTANCE NOTES: Weight range exceeds 20% due to an alternate substance (cristobalite) option for the product's main body composition.

ALTERNATE: This substance is an alternate substance to Cristobalite.

|                                                                                                                                                                                                                                                                                                    |                        |                                            |                                                |                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------|------------------------------------------------|------------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library                                                                                                                                                                                                                                          |                        | HAZARD SCREENING DATE: 2022-11-16 18:20:15 |                                                |                        |
| %: 0.0000 - 11.0550                                                                                                                                                                                                                                                                                | GreenScreen: NoGS      | RC: None                                   | NANO: No                                       | SUBSTANCE ROLE: Binder |
| HAZARD TYPE                                                                                                                                                                                                                                                                                        | AGENCY AND LIST TITLES |                                            | WARNINGS                                       |                        |
| None found                                                                                                                                                                                                                                                                                         |                        |                                            | No warnings found on HPD Priority Hazard Lists |                        |
| ADDITIONAL LISTINGS                                                                                                                                                                                                                                                                                | AGENCY                 |                                            | NOTIFICATION                                   |                        |
| None found                                                                                                                                                                                                                                                                                         |                        |                                            | No listings found on Additional Hazard Lists   |                        |
| SUBSTANCE NOTES: The HPDC Approved Preparer obtained full disclosure down to the 1,000 ppm threshold for the trade name ingredient containing this chemical. Due to the proprietary nature of the information, the name and CAS number for this chemical have been redacted from this substance. 1 |                        |                                            |                                                |                        |

SODIUM OXIDE

ID: 1313-59-3

|                                                                                                                     |                                              |                                                   |                 |                                            |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------------|-----------------|--------------------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>                                                    |                                              | HAZARD SCREENING DATE: <b>2022-11-16 18:20:16</b> |                 |                                            |
| %: <b>0.0000 - 7.0000</b>                                                                                           | GreenScreen: <b>BM-2</b>                     | RC: <b>None</b>                                   | NANO: <b>No</b> | SUBSTANCE ROLE: <b>Structure component</b> |
| HAZARD TYPE                                                                                                         | AGENCY AND LIST TITLES                       |                                                   | WARNINGS        |                                            |
|                                                                                                                     | EC - CEPA DSL                                |                                                   | Persistent      |                                            |
| ADDITIONAL LISTINGS                                                                                                 | AGENCY                                       |                                                   | NOTIFICATION    |                                            |
| None found                                                                                                          | No listings found on Additional Hazard Lists |                                                   |                 |                                            |
| SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-2 was provided through the HPD 2.3 Builder Tool. |                                              |                                                   |                 |                                            |

LIME

ID: 1305-78-8

|                                                           |                   |                                            |          |                                     |
|-----------------------------------------------------------|-------------------|--------------------------------------------|----------|-------------------------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                   | HAZARD SCREENING DATE: 2022-11-16 18:20:15 |          |                                     |
| %: 0.0000 - 7.0000                                        | GreenScreen: BM-2 | RC: None                                   | NANO: No | SUBSTANCE ROLE: Structure component |

| HAZARD TYPE                                                                                                         | AGENCY AND LIST TITLES | WARNINGS                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| SKI                                                                                                                 | GHS - Australia        | H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]                                                                                    |
| MAM                                                                                                                 | GHS - Japan            | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1] |
| MAM                                                                                                                 | GHS - Japan            | H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]                                          |
| SKI                                                                                                                 | GHS - New Zealand      | Skin corrosion category 1C                                                                                                                                |
| EYE                                                                                                                 | GHS - New Zealand      | Serious eye damage category 1                                                                                                                             |
| EYE                                                                                                                 | GHS - Japan            | H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]                                                                       |
| SKI                                                                                                                 | GHS - Japan            | H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]                                                                                  |
| EYE                                                                                                                 | GHS - Australia        | H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]                                                                         |
| ADDITIONAL LISTINGS                                                                                                 | AGENCY                 | NOTIFICATION                                                                                                                                              |
| None found                                                                                                          |                        | No listings found on Additional Hazard Lists                                                                                                              |
| SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-2 was provided through the HPD 2.3 Builder Tool. |                        |                                                                                                                                                           |

**STYRENE**

ID: **100-42-5**

| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                                             | HAZARD SCREENING DATE: <b>2022-11-16 18:20:17</b>                                     |                 |                               |
|------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------|-----------------|-------------------------------|
| %: <b>0.0000 - 6.7740</b>                                        | GreenScreen: <b>BM-1</b>                    | RC: <b>None</b>                                                                       | NANO: <b>No</b> | SUBSTANCE ROLE: <b>Binder</b> |
| HAZARD TYPE                                                      | AGENCY AND LIST TITLES                      | WARNINGS                                                                              |                 |                               |
| END                                                              | TEDX - Potential Endocrine Disruptors       | Potential Endocrine Disruptor                                                         |                 |                               |
| END                                                              | ChemSec - SIN List                          | Endocrine Disruption                                                                  |                 |                               |
| CAN                                                              | CA EPA - Prop 65                            | Carcinogen                                                                            |                 |                               |
| CAN                                                              | US NIH - Report on Carcinogens              | Reasonably Anticipated to be Human Carcinogen                                         |                 |                               |
| CAN                                                              | IARC                                        | Group 2a - Agent is probably Carcinogenic to humans                                   |                 |                               |
| MUL                                                              | German FEA - Substances Hazardous to Waters | Class 2 - Hazard to Waters                                                            |                 |                               |
| CAN                                                              | MAK                                         | Carcinogen Group 5 - Genotoxic carcinogen with very slight risk under MAK/BAT levels  |                 |                               |
| END                                                              | EU - Priority Endocrine Disruptors          | Category 1 - In vivo evidence of Endocrine Disruption Activity                        |                 |                               |
| REP                                                              | GHS - Japan                                 | H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B] |                 |                               |

|     |                                           |                                                                                                                                                           |
|-----|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| REP | GHS - Japan                               | H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1A]                                                                     |
| SKI | EU - GHS (H-Statements) Annex 6 Table 3-1 | H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]                                                                                    |
| EYE | EU - GHS (H-Statements) Annex 6 Table 3-1 | H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]                                                                    |
| MAM | EU - GHS (H-Statements) Annex 6 Table 3-1 | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]                   |
| DEV | EU - GHS (H-Statements) Annex 6 Table 3-1 | H361d - Suspected of damaging the unborn child [Reproductive toxicity - Category 2]                                                                       |
| SKI | GHS - New Zealand                         | Skin irritation category 2                                                                                                                                |
| EYE | GHS - New Zealand                         | Eye irritation category 2                                                                                                                                 |
| SKI | GHS - Australia                           | H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]                                                                                    |
| EYE | GHS - Australia                           | H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]                                                                    |
| CAN | GHS - New Zealand                         | 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] |
| GEN | GHS - Australia                           | H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]                                                                         |
| 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                                                                                             |
| MAM | GHS - Japan                               | H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]                                          |
| MAM | GHS - New Zealand                         | Acute inhalation toxicity category 3                                                                                                                      |
| SKI | GHS - Japan                               | H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]                                                                                  |
| AQU | GHS - New Zealand                         | Hazardous to the aquatic environment - acute category 1                                                                                                   |
| REP | GHS - New Zealand                         | Reproductive toxicity category 2                                                                                                                          |
| AQU | GHS - Japan                               | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]                                                             |
| REP | EU - Annex VI CMRs                        | Reproductive Toxicity - Category 2                                                                                                                        |
| AQU | GHS - Japan                               | H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]                                      |

|                                                                                                                     |                    |                                                                                            |
|---------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------|
| SKI                                                                                                                 | GHS - Malaysia     | H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]                     |
| GEN                                                                                                                 | GHS - New Zealand  | Germ cell mutagenicity category 2                                                          |
| EYE                                                                                                                 | GHS - Japan        | H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2A]   |
| DEV                                                                                                                 | GHS - Australia    | H361d - Suspected of damaging the unborn child [Reproductive toxicity - Category 2]        |
| EYE                                                                                                                 | GHS - Malaysia     | H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]     |
| ADDITIONAL LISTINGS                                                                                                 | AGENCY             | NOTIFICATION                                                                               |
| RESTRICTED LIST                                                                                                     | Perkins+Will (P+W) | P&W - Precautionary List<br><br>Precautionary list of substances recommended for avoidance |
| SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-1 was provided through the HPD 2.3 Builder Tool. |                    |                                                                                            |

|                                                           |                        |                                              |              |                                     |
|-----------------------------------------------------------|------------------------|----------------------------------------------|--------------|-------------------------------------|
| SILICON, ELEMENTAL                                        |                        |                                              |              | ID: 7440-21-3                       |
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                        | HAZARD SCREENING DATE: 2022-11-16 18:20:17   |              |                                     |
| %: 0.0000 - 6.5000                                        | GreenScreen: LT-UNK    | RC: None                                     | NANO: No     | SUBSTANCE ROLE: Structure component |
| HAZARD TYPE                                               | AGENCY AND LIST TITLES |                                              | WARNINGS     |                                     |
|                                                           | EC - CEPA DSL          |                                              | Persistent   |                                     |
| ADDITIONAL LISTINGS                                       | AGENCY                 |                                              | NOTIFICATION |                                     |
| None found                                                |                        | No listings found on Additional Hazard Lists |              |                                     |
| SUBSTANCE NOTES:                                          |                        |                                              |              |                                     |

|                                                           |                                             |                                            |                                                                                  |                                     |
|-----------------------------------------------------------|---------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------|
| MAGNESIUM OXIDE                                           |                                             |                                            |                                                                                  | ID: 1309-48-4                       |
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                                             | HAZARD SCREENING DATE: 2022-11-16 18:20:18 |                                                                                  |                                     |
| %: 0.0000 - 3.5000                                        | GreenScreen: BM-3dg                         | RC: None                                   | NANO: No                                                                         | SUBSTANCE ROLE: Structure component |
| HAZARD TYPE                                               | AGENCY AND LIST TITLES                      |                                            | WARNINGS                                                                         |                                     |
| CAN                                                       | MAK                                         |                                            | Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels |                                     |
| ADDITIONAL LISTINGS                                       | AGENCY                                      |                                            | NOTIFICATION                                                                     |                                     |
| POSITIVE LIST                                             | US Environmental Protection Agency (US EPA) |                                            | US EPA - DfE SCIL<br><br>Green Circle - Verified Low Concern                     |                                     |

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-11-16 18:20:18

|                     |                                                          |          |                                                                                             |                         |
|---------------------|----------------------------------------------------------|----------|---------------------------------------------------------------------------------------------|-------------------------|
| %: 0.0000 - 2.1900  | GreenScreen: LT-1                                        | RC: None | NANO: No                                                                                    | SUBSTANCE ROLE: Pigment |
| HAZARD TYPE         | AGENCY AND LIST TITLES                                   |          | 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                                                                        |                         |
| ADDITIONAL LISTINGS | AGENCY                                                   |          | 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                                                                         |                         |
| SUBSTANCE NOTES:    |                                                          |          |                                                                                             |                         |

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-11-16 18:20:20

|                                                                                                                     |                                                          |                                                                                                                                                           |          |                                     |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------|
| %: 0.0000 - 2.0950                                                                                                  | GreenScreen: BM-1                                        | RC: None                                                                                                                                                  | NANO: No | SUBSTANCE ROLE: Structure component |
| HAZARD TYPE                                                                                                         | AGENCY AND LIST TITLES                                   | WARNINGS                                                                                                                                                  |          |                                     |
| SKI                                                                                                                 | MAK                                                      | Sensitizing Substance Sh - Danger of skin sensitization                                                                                                   |          |                                     |
| MAM                                                                                                                 | GHS - Japan                                              | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1] |          |                                     |
| SKI                                                                                                                 | GHS - Japan                                              | H317 - May cause an allergic skin reaction [Skin sensitizer - Category 1]                                                                                 |          |                                     |
| ADDITIONAL LISTINGS                                                                                                 | AGENCY                                                   | 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                                                                                                                                       |          |                                     |
| SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-1 was provided through the HPD 2.3 Builder Tool. |                                                          |                                                                                                                                                           |          |                                     |

|                                                           |                                                         |                                            |                                                                                             |                         |
|-----------------------------------------------------------|---------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                                                         | HAZARD SCREENING DATE: 2022-11-16 18:20:19 |                                                                                             |                         |
| %: 0.0000 - 2.0950                                        | GreenScreen: LT-1                                       | RC: None                                   | NANO: No                                                                                    | SUBSTANCE ROLE: Pigment |
| HAZARD TYPE                                               | AGENCY AND LIST TITLES                                  |                                            | 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                                                                        |                         |
| ADDITIONAL LISTINGS                                       | AGENCY                                                  |                                            | 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:                                          |                                                         |                                            |                                                                                             |                         |

FERRIC OXIDE

ID: 1309-37-1

|                                                                                                                     |                          |                                                   |                                                                                                                                                           |                                            |
|---------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>                                                    |                          | HAZARD SCREENING DATE: <b>2022-11-16 18:20:20</b> |                                                                                                                                                           |                                            |
| %: <b>0.0000 - 2.0730</b>                                                                                           | GreenScreen: <b>BM-1</b> | RC: <b>None</b>                                   | NANO: <b>No</b>                                                                                                                                           | SUBSTANCE ROLE: <b>Structure component</b> |
| HAZARD TYPE                                                                                                         | AGENCY AND LIST TITLES   |                                                   | WARNINGS                                                                                                                                                  |                                            |
| CAN                                                                                                                 | MAK                      |                                                   | Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification                                                              |                                            |
| MAM                                                                                                                 | GHS - Japan              |                                                   | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1] |                                            |
| EYE                                                                                                                 | GHS - Japan              |                                                   | H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]                                                                       |                                            |
| SKI                                                                                                                 | GHS - Japan              |                                                   | H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]                                                                                  |                                            |
| ADDITIONAL LISTINGS                                                                                                 | AGENCY                   |                                                   | NOTIFICATION                                                                                                                                              |                                            |
| None found                                                                                                          |                          |                                                   | No listings found on Additional Hazard Lists                                                                                                              |                                            |
| SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-1 was provided through the HPD 2.3 Builder Tool. |                          |                                                   |                                                                                                                                                           |                                            |

UNDISCLOSED

ID: Undisclosed

|                                                                  |                          |                 |                                                   |                                |
|------------------------------------------------------------------|--------------------------|-----------------|---------------------------------------------------|--------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                          |                 | HAZARD SCREENING DATE: <b>2022-11-16 18:20:21</b> |                                |
| %: <b>0.0000 - 2.0000</b>                                        | GreenScreen: <b>BM-1</b> | RC: <b>None</b> | NANO: <b>No</b>                                   | SUBSTANCE ROLE: <b>Pigment</b> |

| HAZARD TYPE         | AGENCY AND LIST TITLES                                   | WARNINGS                                                                                    |
|---------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------|
|                     | EC - CEPA DSL                                            | Persistent                                                                                  |
| ADDITIONAL LISTINGS | AGENCY                                                   | 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: The GreenScreen® Benchmark assessment score of BM-1 was provided through the HPD 2.3 Builder Tool. The HPDC Approved Preparer obtained full disclosure down to the 1,000 ppm threshold for the trade name ingredient containing this chemical. Due to the proprietary nature of the information, the name and CAS number for this chemical have been redacted from this substance. 2

## TITANIUM DIOXIDE

ID: 13463-67-7

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-11-16 18:20:23**

%: **0.0000 - 2.0000** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

| HAZARD TYPE | AGENCY AND LIST TITLES                    | 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         | 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 | AGENCY                                                   | NOTIFICATION                                                                                                                          |
|---------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| POSITIVE LIST       | US Environmental Protection Agency (US EPA)              | US EPA - DfE SCIL<br><br>Green Circle - Verified Low Concern                                                                          |
| RESTRICTED LIST     | Cradle to Cradle Products Innovation Institute (C2CP II) | C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Cosmetics & Personal Care Products |
| SUBSTANCE NOTES:    |                                                          |                                                                                                                                       |

FERROSOFERRIC OXIDE

ID: 1317-61-9

|                                                                                                                     |                          |                                                   |                                                                                              |                                |
|---------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>                                                    |                          | HAZARD SCREENING DATE: <b>2022-11-16 18:20:21</b> |                                                                                              |                                |
| %: <b>0.0000 - 2.0000</b>                                                                                           | GreenScreen: <b>BM-1</b> | RC: <b>None</b>                                   | NANO: <b>No</b>                                                                              | SUBSTANCE ROLE: <b>Pigment</b> |
| HAZARD TYPE                                                                                                         | AGENCY AND LIST TITLES   |                                                   | WARNINGS                                                                                     |                                |
| CAN                                                                                                                 | MAK                      |                                                   | Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification |                                |
| ADDITIONAL LISTINGS                                                                                                 | AGENCY                   |                                                   | NOTIFICATION                                                                                 |                                |
| None found                                                                                                          |                          |                                                   | No listings found on Additional Hazard Lists                                                 |                                |
| SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-1 was provided through the HPD 2.3 Builder Tool. |                          |                                                   |                                                                                              |                                |

FERRIC OXIDE, YELLOW

ID: 51274-00-1

|                                                                  |                            |                                                   |                                              |                                |
|------------------------------------------------------------------|----------------------------|---------------------------------------------------|----------------------------------------------|--------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                            | HAZARD SCREENING DATE: <b>2022-11-16 18:20:22</b> |                                              |                                |
| %: <b>0.0000 - 2.0000</b>                                        | GreenScreen: <b>LT-UNK</b> | RC: <b>None</b>                                   | NANO: <b>No</b>                              | SUBSTANCE ROLE: <b>Pigment</b> |
| HAZARD TYPE                                                      | AGENCY AND LIST TITLES     |                                                   | WARNINGS                                     |                                |
|                                                                  | EC - CEPA DSL              |                                                   | Persistent                                   |                                |
| ADDITIONAL LISTINGS                                              | AGENCY                     |                                                   | NOTIFICATION                                 |                                |
| None found                                                       |                            |                                                   | No listings found on Additional Hazard Lists |                                |
| SUBSTANCE NOTES:                                                 |                            |                                                   |                                              |                                |

FLUOROPHLOGOPITE

ID: 12003-38-2

| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                            | HAZARD SCREENING DATE: <b>2022-11-16 18:20:23</b> |                 |                                |
|------------------------------------------------------------------|----------------------------|---------------------------------------------------|-----------------|--------------------------------|
| %: <b>0.0000 - 1.8600</b>                                        | GreenScreen: <b>LT-UNK</b> | RC: <b>None</b>                                   | NANO: <b>No</b> | SUBSTANCE ROLE: <b>Pigment</b> |
| HAZARD TYPE                                                      | AGENCY AND LIST TITLES     |                                                   | WARNINGS        |                                |
|                                                                  | EC - CEPA DSL              |                                                   | Persistent      |                                |

| ADDITIONAL LISTINGS                                                                                                 | AGENCY                                                   | NOTIFICATION                                                                                                                                              |          |                                     |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------|
| None found                                                                                                          |                                                          | No listings found on Additional Hazard Lists                                                                                                              |          |                                     |
| SUBSTANCE NOTES:                                                                                                    |                                                          |                                                                                                                                                           |          |                                     |
| ALUMINUM OXIDE                                                                                                      |                                                          |                                                                                                                                                           |          | ID: 1344-28-1                       |
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library                                                           |                                                          | HAZARD SCREENING DATE: 2022-11-16 18:20:24                                                                                                                |          |                                     |
| %: 0.0000 - 1.8340                                                                                                  | GreenScreen: BM-2                                        | RC: None                                                                                                                                                  | NANO: No | SUBSTANCE ROLE: Structure component |
| HAZARD TYPE                                                                                                         | AGENCY AND LIST TITLES                                   | WARNINGS                                                                                                                                                  |          |                                     |
| 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                                                                                                 | AGENCY                                                   | 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                                                                                                                                       |          |                                     |
| SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-2 was provided through the HPD 2.3 Builder Tool. |                                                          |                                                                                                                                                           |          |                                     |

|                                                           |                        |                                              |                                                                                                                                                           |                         |
|-----------------------------------------------------------|------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| MICA                                                      |                        |                                              |                                                                                                                                                           | ID: 12001-26-2          |
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                        | HAZARD SCREENING DATE: 2022-11-16 18:20:24   |                                                                                                                                                           |                         |
| %: 0.0000 - 1.7200                                        | GreenScreen: LT-UNK    | RC: None                                     | NANO: No                                                                                                                                                  | SUBSTANCE ROLE: Pigment |
| HAZARD TYPE                                               | AGENCY AND LIST TITLES |                                              | WARNINGS                                                                                                                                                  |                         |
| 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                                       | AGENCY                 |                                              | NOTIFICATION                                                                                                                                              |                         |
| None found                                                |                        | No listings found on Additional Hazard Lists |                                                                                                                                                           |                         |
| SUBSTANCE NOTES:                                          |                        |                                              |                                                                                                                                                           |                         |

|                                                           |                   |                                            |          |                                     |
|-----------------------------------------------------------|-------------------|--------------------------------------------|----------|-------------------------------------|
| DIPOTASSIUM MONOHYDROXIDE                                 |                   |                                            |          | ID: 93401-23-1                      |
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                   | HAZARD SCREENING DATE: 2022-11-16 18:20:25 |          |                                     |
| %: 0.0000 - 1.0500                                        | GreenScreen: NoGS | RC: None                                   | NANO: No | SUBSTANCE ROLE: Structure component |

| HAZARD TYPE         | AGENCY AND LIST TITLES | WARNINGS                                       |
|---------------------|------------------------|------------------------------------------------|
| None found          |                        | No warnings found on HPD Priority Hazard Lists |
| ADDITIONAL LISTINGS | AGENCY                 | NOTIFICATION                                   |
| None found          |                        | No listings found on Additional Hazard Lists   |
| SUBSTANCE NOTES:    |                        |                                                |

UNDISCLOSED

ID: Undisclosed

|                                                                                                                                                                                                                                                                                                    |                                                         |                                                |                                                                                             |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library                                                                                                                                                                                                                                          |                                                         | HAZARD SCREENING DATE: 2022-11-16 18:20:26     |                                                                                             |                         |
| %: 0.0000 - 1.0000                                                                                                                                                                                                                                                                                 | GreenScreen: LT-UNK                                     | RC: None                                       | NANO: No                                                                                    | SUBSTANCE ROLE: Pigment |
| HAZARD TYPE                                                                                                                                                                                                                                                                                        | AGENCY AND LIST TITLES                                  |                                                | WARNINGS                                                                                    |                         |
| None found                                                                                                                                                                                                                                                                                         |                                                         | No warnings found on HPD Priority Hazard Lists |                                                                                             |                         |
| ADDITIONAL LISTINGS                                                                                                                                                                                                                                                                                | AGENCY                                                  |                                                | NOTIFICATION                                                                                |                         |
| RESTRICTED LIST                                                                                                                                                                                                                                                                                    | Cradle to Cradle Products Innovation Institute (C2CPII) |                                                | C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 |                         |
|                                                                                                                                                                                                                                                                                                    |                                                         |                                                | Core Restrictions                                                                           |                         |
| SUBSTANCE NOTES: The HPDC Approved Preparer obtained full disclosure down to the 1,000 ppm threshold for the trade name ingredient containing this chemical. Due to the proprietary nature of the information, the name and CAS number for this chemical have been redacted from this substance. 3 |                                                         |                                                |                                                                                             |                         |

RUTILE TITANIUM DIOXIDE

ID: 1317-80-2

| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                                   | HAZARD SCREENING DATE: 2022-11-16 18:20:26                                                                                                                |          |                                     |
|-----------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------|
| %: 0.0000 - 0.4750                                        | GreenScreen: LT-1                 | RC: None                                                                                                                                                  | NANO: No | SUBSTANCE ROLE: Structure component |
| HAZARD TYPE                                               | AGENCY AND LIST TITLES            | 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                                                      |          |                                     |
| 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 | AGENCY                                                   | NOTIFICATION                                                                                                                          |
|---------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| RESTRICTED LIST     | Cradle to Cradle Products Innovation Institute (C2CP II) | C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Cosmetics & Personal Care Products |
| SUBSTANCE NOTES:    |                                                          |                                                                                                                                       |

TRIMETHOXYSILYLPROPYL METHACRYLATE

ID: 2530-85-0

|                                                                  |                            |                                                   |                            |                                 |
|------------------------------------------------------------------|----------------------------|---------------------------------------------------|----------------------------|---------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                            | HAZARD SCREENING DATE: <b>2022-11-16 18:20:27</b> |                            |                                 |
| %: <b>0.0000 - 0.3600</b>                                        | GreenScreen: <b>LT-UNK</b> | RC: <b>None</b>                                   | NANO: <b>No</b>            | SUBSTANCE ROLE: <b>Adhesive</b> |
| HAZARD TYPE                                                      | AGENCY AND LIST TITLES     |                                                   | WARNINGS                   |                                 |
| SKI                                                              | GHS - New Zealand          |                                                   | Skin irritation category 2 |                                 |
| EYE                                                              | GHS - New Zealand          |                                                   | Eye irritation category 2  |                                 |
| ADDITIONAL LISTINGS                                              | AGENCY                     |                                                   | NOTIFICATION               |                                 |
| RESTRICTED LIST                                                  | Perkins+Will (P+W)         |                                                   | P&W - Precautionary List   |                                 |
|                                                                  |                            |                                                   | Watch List                 |                                 |
| SUBSTANCE NOTES:                                                 |                            |                                                   |                            |                                 |

TETRAETHYL SILICATE

ID: 78-10-4

|                                                                  |                                           |                                                   |                                                                                                                                                           |                                 |
|------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                                           | HAZARD SCREENING DATE: <b>2022-11-16 18:20:27</b> |                                                                                                                                                           |                                 |
| %: <b>0.0000 - 0.3600</b>                                        | GreenScreen: <b>LT-UNK</b>                | RC: <b>None</b>                                   | NANO: <b>No</b>                                                                                                                                           | SUBSTANCE ROLE: <b>Adhesive</b> |
| HAZARD TYPE                                                      | AGENCY AND LIST TITLES                    |                                                   | WARNINGS                                                                                                                                                  |                                 |
| EYE                                                              | EU - GHS (H-Statements) Annex 6 Table 3-1 |                                                   | H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]                                                                    |                                 |
| EYE                                                              | GHS - New Zealand                         |                                                   | Eye irritation category 2                                                                                                                                 |                                 |
| EYE                                                              | GHS - Australia                           |                                                   | H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]                                                                    |                                 |
| MAM                                                              | GHS - Japan                               |                                                   | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1] |                                 |
| MAM                                                              | GHS - Japan                               |                                                   | H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]                                          |                                 |
| SKI                                                              | GHS - Japan                               |                                                   | H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]                                                                                  |                                 |
| ADDITIONAL LISTINGS                                              | AGENCY                                    |                                                   | NOTIFICATION                                                                                                                                              |                                 |
| None found                                                       |                                           |                                                   | No listings found on Additional Hazard Lists                                                                                                              |                                 |

METHYL ALCOHOL

ID: 67-56-1

| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                                                  | HAZARD SCREENING DATE: 2022-11-16 18:20:28 |                                                                                                                                                           |                          |
|-----------------------------------------------------------|--------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| %: 0.0000 - 0.2340                                        | GreenScreen: BM-1                                | RC: None                                   | NANO: No                                                                                                                                                  | SUBSTANCE ROLE: Adhesive |
| HAZARD TYPE                                               | AGENCY AND LIST TITLES                           |                                            | WARNINGS                                                                                                                                                  |                          |
| END                                                       | TEDX - Potential Endocrine Disruptors            |                                            | Potential Endocrine Disruptor                                                                                                                             |                          |
| DEV                                                       | CA EPA - Prop 65                                 |                                            | Developmental toxicity                                                                                                                                    |                          |
| DEV                                                       | US NIH - Reproductive & Developmental Monographs |                                            | Clear Evidence of Adverse Effects - Developmental Toxicity                                                                                                |                          |
| MUL                                                       | German FEA - Substances Hazardous to Waters      |                                            | Class 2 - Hazard to Waters                                                                                                                                |                          |
| REP                                                       | GHS - Japan                                      |                                            | H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]                                                                     |                          |
| PHY                                                       | EU - GHS (H-Statements) Annex 6 Table 3-1        |                                            | H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]                                                                                |                          |
| MAM                                                       | EU - GHS (H-Statements) Annex 6 Table 3-1        |                                            | H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]                                                                                        |                          |
| MAM                                                       | EU - GHS (H-Statements) Annex 6 Table 3-1        |                                            | H301 - Toxic if swallowed [Acute toxicity (oral) - Category 3]                                                                                            |                          |
| MAM                                                       | EU - GHS (H-Statements) Annex 6 Table 3-1        |                                            | H311 - Toxic in contact with skin [Acute toxicity (dermal) - Category 3]                                                                                  |                          |
| MAM                                                       | EU - GHS (H-Statements) Annex 6 Table 3-1        |                                            | H370 - Causes damage to organs [Specific target organ toxicity - single exposure - Category 1]                                                            |                          |
| EYE                                                       | GHS - New Zealand                                |                                            | Eye irritation category 2                                                                                                                                 |                          |
| MAM                                                       | GHS - Japan                                      |                                            | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1] |                          |
| MAM                                                       | GHS - New Zealand                                |                                            | Specific target organ toxicity - repeated exposure category 1                                                                                             |                          |
| MAM                                                       | GHS - Japan                                      |                                            | H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]                                          |                          |
| MAM                                                       | GHS - New Zealand                                |                                            | Acute inhalation toxicity category 3                                                                                                                      |                          |
| REP                                                       | GHS - New Zealand                                |                                            | Reproductive toxicity category 2                                                                                                                          |                          |
| EYE                                                       | GHS - Korea                                      |                                            | H319 - Causes serious eye irritation [Serious eye damage/irritation - Category 2]                                                                         |                          |
| PHY                                                       | GHS - Korea                                      |                                            | H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]                                                                                |                          |
| PHY                                                       | GHS - New Zealand                                |                                            | Flammable liquids category 2                                                                                                                              |                          |
| PHY                                                       | GHS - Japan                                      |                                            | H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]                                                                                |                          |
| PHY                                                       | GHS - Malaysia                                   |                                            | H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]                                                                                |                          |

|                     |                                                          |                                                                                                                                       |
|---------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| PHY                 | GHS - Australia                                          | H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]                                                            |
| MAM                 | GHS - Korea                                              | H311 - Toxic in contact with skin [Acute toxicity (dermal) - Category 3]                                                              |
| MAM                 | GHS - Korea                                              | H301 - Toxic if swallowed [Acute toxicity (oral) - Category 3]                                                                        |
| MAM                 | GHS - Malaysia                                           | H300 - Fatal if swallowed [Acute toxicity (oral) - Category 1 or 2]                                                                   |
| MAM                 | GHS - Malaysia                                           | H311 - Toxic in contact with skin [Acute toxicity (dermal) - Category 3]                                                              |
| MAM                 | GHS - Malaysia                                           | H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]                                                                    |
| MAM                 | GHS - Australia                                          | H301 - Toxic if swallowed [Acute toxicity (oral) - Category 3]                                                                        |
| MAM                 | GHS - Australia                                          | H311 - Toxic in contact with skin [Acute toxicity (dermal) - Category 3]                                                              |
| MAM                 | GHS - Australia                                          | H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]                                                                    |
| MAM                 | GHS - New Zealand                                        | Acute dermal toxicity category 3                                                                                                      |
| MAM                 | GHS - New Zealand                                        | Acute oral toxicity category 3                                                                                                        |
| MAM                 | GHS - Korea                                              | H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]                                                                    |
| MAM                 | GHS - Korea                                              | H370 - Causes damage to organs [Specific target organ toxicity - Single exposure - Category 1]                                        |
| MAM                 | GHS - Malaysia                                           | H370 - Causes damage to organs [Specific target organ toxicity - single exposure - Category 1]                                        |
| MAM                 | GHS - Australia                                          | H370 - Causes damage to organs [Specific target organ toxicity - single exposure - Category 1]                                        |
| ADDITIONAL LISTINGS | AGENCY                                                   | NOTIFICATION                                                                                                                          |
| RESTRICTED LIST     | Cradle to Cradle Products Innovation Institute (C2CP II) | C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>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<br><br>Cosmetics & Personal Care Products |

SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-1 was provided through the HPD 2.3 Builder Tool.

ETHANOL

ID: 64-17-5

|                                                                  |                          |                                                   |                 |                                 |
|------------------------------------------------------------------|--------------------------|---------------------------------------------------|-----------------|---------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                          | HAZARD SCREENING DATE: <b>2022-11-16 18:20:29</b> |                 |                                 |
| %: <b>0.0000 - 0.2340</b>                                        | GreenScreen: <b>BM-2</b> | RC: <b>None</b>                                   | NANO: <b>No</b> | SUBSTANCE ROLE: <b>Adhesive</b> |

| HAZARD TYPE                                                                                                         | AGENCY AND LIST TITLES                      | WARNINGS                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| CAN                                                                                                                 | CA EPA - Prop 65                            | Carcinogen - specific to chemical form or exposure route                                                                                                  |
| END                                                                                                                 | TEDX - Potential Endocrine Disruptors       | Potential Endocrine Disruptor                                                                                                                             |
| CAN                                                                                                                 | IARC                                        | Group 1 - Agent is Carcinogenic to humans                                                                                                                 |
| CAN                                                                                                                 | MAK                                         | Carcinogen Group 5 - Genotoxic carcinogen with very slight risk under MAK/BAT levels                                                                      |
| DEV                                                                                                                 | CA EPA - Prop 65                            | Developmental - specific to chemical form or exposure route                                                                                               |
| CAN                                                                                                                 | GHS - Japan                                 | H350 - May cause cancer [Carcinogenicity - Category 1A]                                                                                                   |
| REP                                                                                                                 | GHS - Japan                                 | H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1A]                                                                     |
| PHY                                                                                                                 | EU - GHS (H-Statements) Annex 6 Table 3-1   | H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]                                                                                |
| EYE                                                                                                                 | GHS - New Zealand                           | Eye irritation category 2                                                                                                                                 |
| EYE                                                                                                                 | GHS - Australia                             | H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]                                                                    |
| MAM                                                                                                                 | GHS - Japan                                 | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1] |
| PHY                                                                                                                 | GHS - New Zealand                           | Flammable liquids category 2                                                                                                                              |
| PHY                                                                                                                 | GHS - Japan                                 | H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]                                                                                |
| PHY                                                                                                                 | GHS - Malaysia                              | H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]                                                                                |
| PHY                                                                                                                 | GHS - Australia                             | H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]                                                                                |
| ADDITIONAL LISTINGS                                                                                                 | AGENCY                                      | NOTIFICATION                                                                                                                                              |
| POSITIVE LIST                                                                                                       | US Environmental Protection Agency (US EPA) | US EPA - DfE SCIL<br><br>Green Circle - Verified Low Concern                                                                                              |
| SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-2 was provided through the HPD 2.3 Builder Tool. |                                             |                                                                                                                                                           |

TERT-BUTYL PEROXYBENZOATE

ID: 614-45-9

|                                                                                                                                                      |                                       |                        |                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------------|---------------------|
| HAZARD DATA SOURCE:                                                                                                                                  | Pharos Chemical and Materials Library | HAZARD SCREENING DATE: | 2022-11-16 18:20:30 |
| <div> <div>%: 0.0000 - 0.2025</div> <div>GreenScreen: LT-P1</div> <div>RC: None</div> <div>NANO: No</div> <div>SUBSTANCE ROLE: Catalyst</div> </div> |                                       |                        |                     |

| HAZARD TYPE         | AGENCY AND LIST TITLES                      | WARNINGS                                                                                                                  |
|---------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| MUL                 | German FEA - Substances Hazardous to Waters | Class 2 - Hazard to Waters                                                                                                |
| EYE                 | GHS - New Zealand                           | Eye irritation category 2                                                                                                 |
| SKI                 | GHS - Japan                                 | H317 - May cause an allergic skin reaction [Skin sensitizer - Category 1]                                                 |
| 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 | AGENCY                                      | NOTIFICATION                                                                                                              |
| None found          |                                             | No listings found on Additional Hazard Lists                                                                              |
| SUBSTANCE NOTES:    |                                             |                                                                                                                           |

SEBAZINS\_URE, BIS(2,2,6,6-TETRAMETHYL-PIPERIDINYL)-ESTER, REAKTIONSPRODUKT MIT 1,1-DIMETHYLETHYLHYDROPEROXID UND OKTAN

ID: 129757-67-1

|                                                                  |                            |                                                   |                 |                                   |
|------------------------------------------------------------------|----------------------------|---------------------------------------------------|-----------------|-----------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                            | HAZARD SCREENING DATE: <b>2022-11-16 18:20:30</b> |                 |                                   |
| %: <b>0.0000 - 0.2000</b>                                        | GreenScreen: <b>LT-UNK</b> | RC: <b>None</b>                                   | NANO: <b>No</b> | SUBSTANCE ROLE: <b>Stabilizer</b> |
| HAZARD TYPE                                                      | AGENCY AND LIST TITLES     |                                                   | WARNINGS        |                                   |
| None found                                                       |                            | No warnings found on HPD Priority Hazard Lists    |                 |                                   |
| ADDITIONAL LISTINGS                                              | AGENCY                     |                                                   | NOTIFICATION    |                                   |
| None found                                                       |                            | No listings found on Additional Hazard Lists      |                 |                                   |
| SUBSTANCE NOTES:                                                 |                            |                                                   |                 |                                   |

OCTABENZONE

ID: 1843-05-6

|                                                           |                     |                                            |          |                                       |
|-----------------------------------------------------------|---------------------|--------------------------------------------|----------|---------------------------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                     | HAZARD SCREENING DATE: 2022-11-16 18:20:31 |          |                                       |
| %: 0.0000 - 0.2000                                        | GreenScreen: LT-UNK | RC: None                                   | NANO: No | SUBSTANCE ROLE: Heat or UV stabilizer |

| HAZARD TYPE         | AGENCY AND LIST TITLES | WARNINGS                                     |
|---------------------|------------------------|----------------------------------------------|
|                     | EC - CEPA DSL          | Persistent                                   |
| ADDITIONAL LISTINGS | AGENCY                 | NOTIFICATION                                 |
| None found          |                        | No listings found on Additional Hazard Lists |
| SUBSTANCE NOTES:    |                        |                                              |

OXYBENZONE

ID: 131-57-7

|                                                           |                                             |                                            |                                                                                                                           |                                       |
|-----------------------------------------------------------|---------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                                             | HAZARD SCREENING DATE: 2022-11-16 18:20:31 |                                                                                                                           |                                       |
| %: 0.0000 - 0.1980                                        | GreenScreen: LT-P1                          | RC: None                                   | NANO: No                                                                                                                  | SUBSTANCE ROLE: Heat or UV stabilizer |
| HAZARD TYPE                                               | AGENCY AND LIST TITLES                      |                                            | WARNINGS                                                                                                                  |                                       |
| END                                                       | TEDX - Potential Endocrine Disruptors       |                                            | Potential Endocrine Disruptor                                                                                             |                                       |
| END                                                       | ChemSec - SIN List                          |                                            | Endocrine Disruption                                                                                                      |                                       |
| MUL                                                       | German FEA - Substances Hazardous to Waters |                                            | Class 2 - Hazard to Waters                                                                                                |                                       |
| END                                                       | EU - Priority Endocrine Disruptors          |                                            | Category 2 - In vitro evidence of biological activity related to Endocrine Disruption                                     |                                       |
| SKI                                                       | GHS - Japan                                 |                                            | H317 - May cause an allergic skin reaction [Skin sensitizer - Category 1]                                                 |                                       |
| AQU                                                       | GHS - Japan                                 |                                            | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]                             |                                       |
| AQU                                                       | GHS - Japan                                 |                                            | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |                                       |
| ADDITIONAL LISTINGS                                       | AGENCY                                      |                                            | NOTIFICATION                                                                                                              |                                       |
| None found                                                |                                             |                                            | No listings found on Additional Hazard Lists                                                                              |                                       |
| SUBSTANCE NOTES:                                          |                                             |                                            |                                                                                                                           |                                       |

CARBON BLACK

ID: 1333-86-4

|                                                           |                   |                                            |          |                         |
|-----------------------------------------------------------|-------------------|--------------------------------------------|----------|-------------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                   | HAZARD SCREENING DATE: 2022-11-16 18:20:32 |          |                         |
| %: 0.0000 - 0.1900                                        | GreenScreen: BM-1 | RC: None                                   | NANO: No | SUBSTANCE ROLE: Pigment |

| HAZARD TYPE                                                                                                         | AGENCY AND LIST TITLES            | 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                                                                            |
| 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                                                                                                 | AGENCY                            | NOTIFICATION                                                                                                                                              |
| None found                                                                                                          |                                   | No listings found on Additional Hazard Lists                                                                                                              |
| SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-1 was provided through the HPD 2.3 Builder Tool. |                                   |                                                                                                                                                           |

SODIUM SILICATE

ID: 1344-09-8

|                                                                  |                                             |                                                   |                                                                                                      |                                            |
|------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                                             | HAZARD SCREENING DATE: <b>2022-11-16 18:20:33</b> |                                                                                                      |                                            |
| %: <b>0.0000 - 0.1900</b>                                        | GreenScreen: <b>LT-P1</b>                   | RC: <b>None</b>                                   | NANO: <b>No</b>                                                                                      | SUBSTANCE ROLE: <b>Structure component</b> |
| HAZARD TYPE                                                      | AGENCY AND LIST TITLES                      |                                                   | WARNINGS                                                                                             |                                            |
| END                                                              | TEDX - Potential Endocrine Disruptors       |                                                   | Potential Endocrine Disruptor                                                                        |                                            |
| SKI                                                              | GHS - New Zealand                           |                                                   | Skin corrosion category 1C                                                                           |                                            |
| EYE                                                              | GHS - New Zealand                           |                                                   | Serious eye damage category 1                                                                        |                                            |
| SKI                                                              | GHS - Australia                             |                                                   | H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C] |                                            |
| ADDITIONAL LISTINGS                                              | AGENCY                                      |                                                   | NOTIFICATION                                                                                         |                                            |
| POSITIVE LIST                                                    | US Environmental Protection Agency (US EPA) |                                                   | US EPA - DfE SCIL                                                                                    |                                            |
|                                                                  |                                             |                                                   | Green Circle - Verified Low Concern                                                                  |                                            |
| SUBSTANCE NOTES:                                                 |                                             |                                                   |                                                                                                      |                                            |

ULTRAMARINE (PIGMENT)

ID: 57455-37-5

|                                                           |                     |                                            |          |                         |
|-----------------------------------------------------------|---------------------|--------------------------------------------|----------|-------------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                     | HAZARD SCREENING DATE: 2022-11-16 18:20:33 |          |                         |
| %: 0.0000 - 0.1900                                        | GreenScreen: LT-UNK | RC: None                                   | NANO: No | SUBSTANCE ROLE: Pigment |

| HAZARD TYPE         | AGENCY AND LIST TITLES                      | WARNINGS                                                     |
|---------------------|---------------------------------------------|--------------------------------------------------------------|
|                     | EC - CEPA DSL                               | Persistent                                                   |
| ADDITIONAL LISTINGS | AGENCY                                      | NOTIFICATION                                                 |
| POSITIVE LIST       | US Environmental Protection Agency (US EPA) | US EPA - DfE SCIL<br><br>Green Circle - Verified Low Concern |
| SUBSTANCE NOTES:    |                                             |                                                              |

**KAOLIN**

ID: **1332-58-7**

|                                                                  |                                             |                                                   |                                                                                              |                                            |
|------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                                             | HAZARD SCREENING DATE: <b>2022-11-16 18:20:34</b> |                                                                                              |                                            |
| %: <b>0.0000 - 0.1900</b>                                        | GreenScreen: <b>LT-UNK</b>                  | RC: <b>None</b>                                   | NANO: <b>No</b>                                                                              | SUBSTANCE ROLE: <b>Structure component</b> |
| HAZARD TYPE                                                      | AGENCY AND LIST TITLES                      |                                                   | WARNINGS                                                                                     |                                            |
| CAN                                                              | MAK                                         |                                                   | Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification |                                            |
| ADDITIONAL LISTINGS                                              | AGENCY                                      |                                                   | NOTIFICATION                                                                                 |                                            |
| POSITIVE LIST                                                    | US Environmental Protection Agency (US EPA) |                                                   | US EPA - DfE SCIL                                                                            |                                            |
|                                                                  |                                             |                                                   | Green Circle - Verified Low Concern                                                          |                                            |
| SUBSTANCE NOTES:                                                 |                                             |                                                   |                                                                                              |                                            |

**SILICON DIOXIDE**

ID: **7631-86-9**

|                                                                                                                     |                                             |                                                   |                                                                                                                                                           |                                |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>                                                    |                                             | HAZARD SCREENING DATE: <b>2022-11-16 18:20:34</b> |                                                                                                                                                           |                                |
| %: <b>0.0000 - 0.1000</b>                                                                                           | GreenScreen: <b>BM-1</b>                    | RC: <b>None</b>                                   | NANO: <b>No</b>                                                                                                                                           | SUBSTANCE ROLE: <b>Pigment</b> |
| HAZARD TYPE                                                                                                         | AGENCY AND LIST TITLES                      |                                                   | WARNINGS                                                                                                                                                  |                                |
| CAN                                                                                                                 | GHS - Japan                                 |                                                   | H350 - May cause cancer [Carcinogenicity - Category 1A]                                                                                                   |                                |
| CAN                                                                                                                 | GHS - Australia                             |                                                   | H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]                                                                              |                                |
| MAM                                                                                                                 | GHS - Japan                                 |                                                   | 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                                                                                                 | AGENCY                                      |                                                   | NOTIFICATION                                                                                                                                              |                                |
| POSITIVE LIST                                                                                                       | US Environmental Protection Agency (US EPA) |                                                   | US EPA - DfE SCIL<br><br>Green Circle - Verified Low Concern                                                                                              |                                |
| SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-1 was provided through the HPD 2.3 Builder Tool. |                                             |                                                   |                                                                                                                                                           |                                |

|                                                                                                                     |                                                         |                                                                                             |                            |                         |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------|-------------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library                                                           |                                                         | HAZARD SCREENING DATE: 2022-11-16 18:20:35                                                  |                            |                         |
| %: 0.0000 - 0.1000                                                                                                  | GreenScreen: BM-2                                       | RC: None                                                                                    | NANO: No                   | SUBSTANCE ROLE: Pigment |
| HAZARD TYPE                                                                                                         | AGENCY AND LIST TITLES                                  |                                                                                             | WARNINGS                   |                         |
| SKI                                                                                                                 | GHS - New Zealand                                       |                                                                                             | Skin irritation category 2 |                         |
| EYE                                                                                                                 | GHS - New Zealand                                       |                                                                                             | Eye irritation category 2  |                         |
| ADDITIONAL LISTINGS                                                                                                 | AGENCY                                                  |                                                                                             | 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: The GreenScreen® Benchmark assessment score of BM-2 was provided through the HPD 2.3 Builder Tool. |                                                         |                                                                                             |                            |                         |

## 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UL/GreenGuard Certified                           |                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|
| CERTIFYING PARTY: Third Party<br>APPLICABLE FACILITIES: All Facilities.<br>CERTIFICATE URL: <a href="https://spot.ul.com/main-app/products/catalog/?keywords=Vicostone+quartz+">https://spot.ul.com/main-app/products/catalog/?keywords=Vicostone+quartz+</a><br>CERTIFICATION AND COMPLIANCE NOTES: UL 2818 - 2013 Standard for Chemical Emissions for Building Materials, Finishes and Furnishings                                                                                                                                                                              | ISSUE DATE: 2009-09-21<br>EXPIRY DATE: 2023-09-21 | CERTIFIER OR LAB: UL                                    |
| VOC EMISSIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UL/GreenGuard Gold Certified                      |                                                         |
| CERTIFYING PARTY: Third Party<br>APPLICABLE FACILITIES: All Facilities.<br>CERTIFICATE URL: <a href="https://spot.ul.com/main-app/products/catalog/?keywords=Vicostone+quartz+">https://spot.ul.com/main-app/products/catalog/?keywords=Vicostone+quartz+</a><br>CERTIFICATION AND COMPLIANCE NOTES: Certificate Number: 241032-420. UL 2818 - 2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings.                                                                                                                                        | ISSUE DATE: 2009-09-21<br>EXPIRY DATE: 2023-09-21 | CERTIFIER OR LAB: UL                                    |
| LCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ILFI Declare - LBC Compliant                      |                                                         |
| CERTIFYING PARTY: Third Party<br>APPLICABLE FACILITIES: All Facilities.<br>CERTIFICATE URL: <a href="https://spot.ul.com/main-app/products/catalog/?keywords=Vicostone+quartz+">https://spot.ul.com/main-app/products/catalog/?keywords=Vicostone+quartz+</a><br>CERTIFICATION AND COMPLIANCE NOTES: Living Building Challenge Criteria Compliant. LBC Red List Approved.                                                                                                                                                                                                         | ISSUE DATE: 2018-08-01<br>EXPIRY DATE: 2022-08-01 | CERTIFIER OR LAB: International Living Future Institute |
| LCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Environmental Product Declaration (EPD) by SCS    |                                                         |
| CERTIFYING PARTY: Third Party<br>APPLICABLE FACILITIES: All Facilities.<br>CERTIFICATE URL: <a href="https://cdn.scs-certified.com/products/cert_pdfs/SCS-EPD-04770_VICOSTONE-Quartz-Surfaces_121417.pdf">https://cdn.scs-certified.com/products/cert_pdfs/SCS-EPD-04770_VICOSTONE-Quartz-Surfaces_121417.pdf</a><br>CERTIFICATION AND COMPLIANCE NOTES: SCS-EPD-04770; Product Category Rule for Environmental Product Declarations: PCR for Residential Countertops. NSF International. Valid through September 17, 2018. This EPD conforms to ISO 14025, 14040, and ISO 14044. | ISSUE DATE: 2017-12-14<br>EXPIRY DATE: 2022-12-13 | CERTIFIER OR LAB: SCS Global Services                   |
| OTHER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ANSI/NSF 51-2012 Food equipment materials         |                                                         |
| CERTIFYING PARTY: Third Party<br>APPLICABLE FACILITIES: All Facilities.<br>CERTIFICATE URL:<br>CERTIFICATION AND COMPLIANCE NOTES:                                                                                                                                                                                                                                                                                                                                                                                                                                                | ISSUE DATE: 2017-06-15<br>EXPIRY DATE:            | CERTIFIER OR LAB: NSF International                     |
| MANAGEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ISO 9001:2015 Quality management systems          |                                                         |
| CERTIFYING PARTY: Third Party<br>APPLICABLE FACILITIES: All Facilities.<br>CERTIFICATE URL:<br>CERTIFICATION AND COMPLIANCE NOTES:                                                                                                                                                                                                                                                                                                                                                                                                                                                | ISSUE DATE: 2020-03-22<br>EXPIRY DATE: 2023-03-21 | CERTIFIER OR LAB: BSI                                   |

## 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

A&A Green Phoenix Group Joint Stock Company worked with the HPDC Approved Preparer to confirm that all intentionally added ingredients, residuals and impurities were considered under the preparation of this HPD. This was accomplished by obtaining full formulation disclosure, including residuals and impurities, down to the 1,000 ppm threshold.

Vicostone Quartz Surfaces are "Seal of the Kosher Trust" certified. The surfaces are suitable for use with kosher food and will remain suitable provided that the countertop is used exclusively with kosher food for the lifetime of the product. <http://www.sealk.org/>

## MANUFACTURER INFORMATION

**MANUFACTURER:** A&A GREEN PHOENIX GROUP JOINT STOCK  
**COMPANY**  
**ADDRESS:** 167 Hoang Ngan Street, Trung Hoa Ward  
 Cau Giay District  
 Hanoi Hanoi 100000, Vietnam  
**WEBSITE:** <http://www.vicostone.com>

**CONTACT NAME:** Mr. Pham Tri Dzung  
**TITLE:** Deputy General Director  
**PHONE:** (84) 24 33 685 826  
**EMAIL:** [info@vicostone.com](mailto:info@vicostone.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

|                                       |                                                   |                                                      |
|---------------------------------------|---------------------------------------------------|------------------------------------------------------|
| <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

|                                                     |
|-----------------------------------------------------|
| <b>PreC</b> Pre-consumer recycled content           |
| <b>PostC</b> Post-consumer recycled content         |
| <b>UNK</b> Inclusion of recycled content is unknown |
| <b>None</b> Does not include recycled content       |

### Other Terms:

**GHS SDS** Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

### Inventory Methods:

- Nested Method / Material Threshold** Substances listed within each material per threshold indicated per material
- Nested Method / Product Threshold** Substances listed within each material per threshold indicated per product
- Basic Method / Product Threshold** Substances listed individually per threshold indicated per product

**Nano** Composed of nano scale particles or nanotechnology

**Third Party Verified** Verification by independent certifier approved by HPDC

**Preparer** Third party preparer, if not self-prepared by manufacturer

**Applicable facilities** Manufacturing sites to which testing applies

*The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:*

- a method for the assessment of exposure or risk associated with product handling or use,*
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

*Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.*

*The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.*

*The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.*