Staron® Acrylic Solid Surfaces by Lotte Chemical Corp.

Health Product Declaration v2.2

created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: (to be provided)
CLASSIFICATION: SECTION 06 61 16 SOLID SURFACING FABRICATIONS; 12 36 61 SOLID SURFACING COUNTERTOPS
PRODUCT DESCRIPTION: Staron® is a homogeneous and non-porous acrylic composite surfacing material well-suited for a range of interior applications. Designed with active end-users in mind, Staron® offers an extensive assortment of colors and patterns to complement virtually any decor space. From subtle neutrals to vivid solids, Staron® is an ideal surfacing solution for healthcare, hospitality, corporate and retail environments. Manufacturer of Staron®, Lotte Chemical, is committed to be the "Green Movement" and is constantly striving to improve the environment and keep our nature pristine. There are no heavy metals or toxic chemicals used in the production of Staron®. All suppliers of the raw materials used in the manufacture of Staron® are supervised under a strict Lotte quality control program.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format
- ○ Nested Materials Method
- ◉ Basic Method

Threshold Disclosed Per
- ○ Material
- ◉ Product

Threshold level
- ○ 100 ppm
- ◉ 1,000 ppm
- ○ Per GHS SDS
- ○ Other

Residuals/Impurities
- ◉ Considered
- ○ Partially Considered
- ○ Not Considered

Explanation(s) provided for Residuals/Impurities?
- ◉ Yes ○ No

All Substances Above the Threshold Indicated Are:

Characterized ○ Yes Ex/SC ◉ Yes ○ No
% weight and role provided for all substances.

Screened ○ Yes Ex/SC ◉ Yes ○ No
All substances screened using Priority Hazard Lists with results disclosed.

Identified ○ Yes Ex/SC ○ Yes ◉ No
One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.

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.

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

STARON® ACRYLIC SOLID SURFACES [ALUMINA TRIHYDRATE (ALUMINA TRIHYDRATE) BM-2 METHYL METHACRYLATE (METHYL METHACRYLATE) LT-P1 | RES | PHY | SKI | END POLYMETHYL METHACRYLATE LT-P1 | RES UNDISCLOSED LT-P1 UNDISCLOSED LT-UNK UNDISCLOSED LT-P1 | END UNDISCLOSED NoGS UNDISCLOSED LT-P1 | MUL UNDISCLOSED LT-UNK CARBON BLACK (CARBON BLACK) BM-1 | CAN TITANIUM DIOXIDE (TITANIUM DIOXIDE) LT-1 | CAN | END]

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

Contents highest concern GreenScreen Benchmark or List translator Score ... BM-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Substances percent weight are provided

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE

See Section 3 for additional listings.

VOC emissions: GreenGuard - Gold (previously Children & Schools)

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?
- ○ Yes
- ◉ No

PREPARER: Self-Prepared
VERIFIER:
VERIFICATION #:

SCREENING DATE: 2020-06-01
PUBLISHED DATE: 2020-06-04
EXPIRY DATE: 2023-06-01

Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- *Basic Inventory method with Product-level threshold.*
- *Nested Material Inventory method with Product-level threshold*
- *Nested Material Inventory method with individual Material-level thresholds*

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.1.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-1-standard

STARON® ACRYLIC SOLID SURFACES

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: The high standards and efficiency of production in the manufacture of Staron results in limited waste and reduced energy consumption. Scrap and waste generated during production process are recycled and re-used in the manufacture of new products. Energy consumption is managed using respected management systems comparable to 6 Sigma and TPM. Additionally, Staron recycled series products are manufactured using pre-consumer recycled content and certified by Scientific Certification Systems (SCS) that can contribute to LEED® MR Credits for recycled content, resulting in a reduction of industrial waste and energy consumption utilized during the manufacturing process. Using recycled content helps conserve energy and resources, alleviates pressure on landfill space and reduces the need for transportation during certain phases of a product's life cycle.

OTHER PRODUCT NOTES: There are no heavy metals or toxic chemicals used in the production of Staron®. All suppliers of the raw materials used in the manufacture of Staron® are supervised under a strict Lotte quality control programme. Materials are inspected by both internal/external examining bodies RoHS (Restricting the use of Hazardous Substances) and NSF (National Sanitation Foundation, USA) ensuring that Staron® manufacturing meets the environmental standards required.

ALUMINA TRIHYDRATE (ALUMINA TRIHYDRATE)

ID: 21645-51-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-06-01**

%: **55.0000 - 65.0000** GS: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Flame retardant**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Alumina Trihydrate (ATH) is often associated with its role as a non-halogen flame retardant and smoke suppressant. Synonyms for ATH include Hydrated Alumina, Aluminum Hydroxide, Aluminum Trihydroxide. ATH is an extremely functional and versatile pigment in Staron® Acrylic Solid Surfaces.

METHYL METHACRYLATE (METHYL METHACRYLATE)

ID: 80-62-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-06-01**

%: **20.0000 - 40.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Monomer**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H225 - Highly flammable liquid and vapour
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: The principal application of Methyl Methacrylate (MMA) is the manufacture of Acrylic Resin in Staron® Acrylic Solid Surfaces.

POLYMETHYL METHACRYLATE

ID: **9011-14-7**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-06-01**

%: **5.0000 - 10.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced

SUBSTANCE NOTES: PMMA is a non-linked polymer component in acrylic solid surface material.

UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-06-01**

%: **0.0000 - 1.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Tensile strength additive**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Staron® Acrylic Solid Surface products are comprised of reacted monomers and resins, inert mineral fillers, and colorants, and are manufactured in the form of sheets and shapes (sinks and wash basins). The material inputs for Staron® solid surface are encapsulated by polymerization of acrylic-based reactants in the manufacturing process. In its finished form, Staron® solid surface material is an article, is nontoxic and non-allergic to humans.

UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-06-01**

%: **0.0000 - 1.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Tensile strength additive**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Staron® Acrylic Solid Surface products are comprised of reacted monomers and resins, inert mineral fillers, and colorants, and are manufactured in the form of sheets and shapes (sinks and wash basins). The material inputs for Staron® solid surface are encapsulated by polymerization of acrylic-based reactants in the manufacturing process. In its finished form, Staron® solid surface material is an article, is nontoxic and non-allergic to humans.

UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-06-01**

%: **0.0000 - 1.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Curing agent**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES: Staron® Acrylic Solid Surface products are comprised of reacted monomers and resins, inert mineral fillers, and colorants, and are manufactured in the form of sheets and shapes (sinks and wash basins). The material inputs for Staron® solid surface are encapsulated by polymerization of acrylic-based reactants in the manufacturing process. In its finished form, Staron® solid surface material is an article, is nontoxic and non-allergic to humans.

UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-06-01**

%: **0.0000 - 1.0000** GS: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Curing agent**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Staron® Acrylic Solid Surface products are comprised of reacted monomers and resins, inert mineral fillers, and colorants, and are manufactured in the form of sheets and shapes (sinks and wash basins). The material inputs for Staron® solid surface are encapsulated by polymerization of acrylic-based reactants in the manufacturing process. In its finished form, Staron® solid surface material is an article, is nontoxic and non-allergic to humans.

UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-06-01**

%: **0.0000 - 2.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Curing agent**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters

SUBSTANCE NOTES: Staron® Acrylic Solid Surface products are comprised of reacted monomers and resins, inert mineral fillers, and colorants, and are manufactured in the form of sheets and shapes (sinks and wash basins). The material inputs for Staron® solid surface are encapsulated by polymerization of acrylic-based reactants in the manufacturing process. In its finished form, Staron® solid surface material is an article, is nontoxic and non-allergic to humans.

UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-06-01**

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

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Staron® Acrylic Solid Surface products are comprised of reacted monomers and resins, inert mineral fillers, and colorants, and are manufactured in the form of sheets and shapes (sinks and wash basins). The material inputs for Staron® solid surface are encapsulated by polymerization of acrylic-based reactants in the manufacturing process. In its finished form, Staron® solid surface material is an article, is nontoxic and non-allergic to humans.

CARBON BLACK (CARBON BLACK)

ID: **1333-86-4**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-06-01**

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

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: Staron® Acrylic Solid Surface products are comprised of reacted monomers and resins, inert mineral fillers, and colorants, and are manufactured in the form of sheets and shapes (sinks and wash basins). The material inputs for Staron® solid surface are encapsulated by polymerization of acrylic-based reactants in the manufacturing process. In its finished form, Staron® solid surface material is an article, is nontoxic and non-allergic to humans.

TITANIUM DIOXIDE (TITANIUM DIOXIDE)

ID: **13463-67-7**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-06-01**

%: **0.0000 - 1.0000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CANCER	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SUBSTANCE NOTES: Staron® Acrylic Solid Surface products are comprised of reacted monomers and resins, inert mineral fillers, and colorants, and are manufactured in the form of sheets and shapes (sinks and wash basins). The material inputs for Staron® solid surface are encapsulated by polymerization of acrylic-based reactants in the manufacturing process. In its finished form, Staron® solid surface material is an article, is nontoxic and non-allergic to humans.

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS	GreenGuard - Gold (previously Children & Schools)

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: Building products and Interior finishes
CERTIFICATE URL: https://spot.ul.com/main-app/products/detail/5ad1e80355b0e82d946a0796?page_type=Products%20Catalog

ISSUE DATE: 2007-09-18

EXPIRY DATE: 2020-09-18

CERTIFIER OR LAB: UL Environment

CERTIFICATION AND COMPLIANCE NOTES: Greenguard Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

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

Staron® is GREENGUARD Gold certified and is therefore scientifically proven to meet some of the world's most rigorous, third-party chemical emission standards – helping reduce indoor air pollution and the risk of chemical exposure while aiding in the creation of healthier indoor environments. GREENGUARD Gold certification standard includes health based criteria for additional chemicals and also requires lower total VOC (volatile organic compounds) emissions levels to ensure products are acceptable for use in environments such as schools and healthcare facilities. Staron® received a Certificate of Environmental Building Material (Certificate #: HB075G04-01) and achieved an outstanding grade in accordance with the regulation for environmental building materials provided by the Korea Air Cleaning Association. Staron® is considered a re-usable material and can be refurbished to look as new. Otherwise, waste product can be incinerated or disposed of to landfill in accordance with local regulations. Environmental Product Declarations (EPD) for Staron® is available at www.scscertified.com/products/cert_pdfs/SCS-EPD-04751_LOTTE_Staron_010820.pdf.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Lotte Chemical Corp.**
ADDRESS: **6 Centerpointe Dr. Suite 100**
La Palma CA 90623, USA
WEBSITE: **www.staron.com**

CONTACT NAME: **Daniel Hong**
TITLE: **TS Manager**
PHONE: **714-443-0962**
EMAIL: **daniel.hong@lotte.net**

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

KEY

Hazard Types

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

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)
BM-3 Benchmark 3 (use but still opportunity for improvement)
BM-2 Benchmark 2 (use but search for safer substitutes)
BM-1 Benchmark 1 (avoid - chemical of high concern)
BM-U Benchmark Unspecified (due to insufficient data)
LT-P1 List Translator Possible 1 (Possible Benchmark-1)
LT-1 List Translator 1 (Likely Benchmark-1)
LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the information contained within the list did not result in a clear mapping to a LT-1 or LTP1 score.)
NoGS No GreenScreen.

Recycled Types

PreC Pre-consumer recycled content
PostC Post-consumer recycled content
UNK Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms:

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

Inventory Methods:

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

Nano Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

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

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

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

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

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