Guardian Flat and Processed Glass by Guardian Glass

CLASSIFICATION: 08 80 00.00 Glazing

PRODUCT DESCRIPTION: This HPD covers the following Guardian Flat and Processed Glass Products that are manufactured in North America: Clear; UltraClear™ Low Iron; Green; TwilightGreen®; Gray; CrystalGray®; CrystalBlue™; MidnightGray™; MidnightGray®II; PrivaGuard®; Solar Management Glass (SMG®) - SMG II, SMG III, SMG IV; SunGuard® Series (SuperNeutral 68, SuperNeutral 54, SNx 62/27, SNX 51/23, SNR 43, Neutral 78/65, Neutral 50, Neutral 40, AG 50, AG 43, IS 20, Silver 20, Heat-Treated); ClimaGuard® Series (80/70, 72/57, 70/36, 62/27, 55/27, 53/23, IS 20, HiLightR 802, Heat-Treated); InGlass® Interior Series (ShowerGuard®, Berman Glass editions™, Patterned Glass (Niagara, Spraylite, Dew, Bubble, Glue Chip)); Technical Glass (Anti-Reflective, ITO, SRP, ThermaGuard Series); and Transportation (Chrome First Surface Mirror).

Section 1: Summary

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
- Per OSHA SDS
- Other

Residuals/Impurities
- Considered
- Partially Considered
- Not Considered

Are All Substances Above the Threshold Indicated:
- Yes
- No

Characterized
- Percent Weight and Role Provided:
- Yes
- No

Screened
- Using Priority Hazard Lists with Results Disclosed:
- Yes
- No

Identified
- Name and Identifier Provided:
- Yes
- No

Number of Greenscreen BM-4/BM3 contents........... 0
Contents highest concern GreenScreen Benchmark or List translator Score.............. LT-UNK
Nanomaterial............. No

INVENTORY AND SCREENING NOTES:
Guardian tinted and sputter-coated glass products are similar in composition to clear float glass but may include slight variations of intentionally added trace components to achieve required optical properties. All substances above the disclosure threshold of 1,000 ppm are characterized, screened, and identified in Section 2 of this HPD.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: Inherently non-emitting source per LEED® - Glass

CONSISTENCY WITH OTHER PROGRAMS
Pre-checked for LEED v4 Material Ingredients, Option 1

Third Party Verified?
- Yes
- No

PREPARER: Self-Prepared
VERIFIER:
VERIFICATION #: 2018-01-26
SCREENING DATE: 2018-03-02
PUBLISHED DATE: 2018-01-26
EXPIRY DATE: 2021-01-26
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, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-1-standard](http://www.hpd-collaborative.org/hpd-2-1-standard)

GUARDIAN FLAT AND PROCESSED GLASS

PRODUCT THRESHOLD: 1000 ppm
RESIDUALS AND IMPURITIES CONSIDERED: Yes
RESIDUALS AND IMPURITIES NOTES: No residuals or impurities are present above the 1000 ppm disclosure threshold for this HPD.
OTHER PRODUCT NOTES: None

SOLID / PLATE GLASS (SOLID / PLATE GLASS)

ID: 65997-17-3
%: 100.0000 - 100.0000
GS: LT-UNK
RC: PreC
NANO: No
ROLE: Primary material

HAZARDS:
None Found

SUBSTANCE NOTES: Guardian flat soda lime silicate (SLS) glass is manufactured by the reaction of various raw materials. Some of the raw materials are crystalline substances, however, the finished glass is amorphous and does not have short range repeatable crystalline structures like crystalline silica. Substance inputs include pre-consumer cullet from float glass fabrication facilities.

Section 3: Certifications and Compliance

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

VOC EMISSIONS

Inherently non-emitting source per LEED® - Glass

CERTIFYING PARTY: Self-declared
APPLICABLE FACILITIES: All
CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: Per LEED® v4, Products that are inherently nonemitting sources of VOCs (stone, ceramic, powder-coated metals, plated or anodized metal, glass, concrete, clay brick, and unfinished or untreated solid wood flooring) are considered fully compliant without any VOC emissions testing if they do not include integral organic-based surface coatings, binders, or sealants.

Section 4: Accessories

Guardian Flat and Processed Glass

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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.

### Section 5: General Notes

See Inventory and Screening notes for additional information.

### Section 6: References

#### MANUFACTURER INFORMATION

<table>
<thead>
<tr>
<th>MANUFACTURER: Guardian Glass</th>
<th>CONTACT NAME: Coleen Dykstra</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS: 2300 Harmon Rd. Auburn Hills MI 48326, U.S.</td>
<td>TITLE: Product Stewardship Manager</td>
</tr>
<tr>
<td>EMAIL: <a href="mailto:info@guardianglass.com">info@guardianglass.com</a></td>
<td></td>
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</tbody>
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#### KEY

<table>
<thead>
<tr>
<th>OSHA MSDS</th>
<th>Occupational Safety and Health Administration Material Safety Data Sheet</th>
</tr>
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<tbody>
<tr>
<td>GHS SDS</td>
<td>Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet</td>
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</tbody>
</table>

**Hazard Types**

- **AQU** Aquatic toxicity
- **CAN** Cancer
- **DEV** Developmental toxicity
- **END** Endocrine activity
- **EYE** Eye irritation/corrosivity
- **GEN** Gene mutation
- **GLO** Global warming
- **MAM** Mammalian/systemic/organ toxicity
- **MUL** Multiple hazards
- **NEU** Neurotoxicity
- **OZO** Ozone depletion
- **PBT** Persistent Bioaccumulative Toxic
- **PHY** Physical Hazard (reactive)
- **REP** Reproductive toxicity
- **RES** Respiratory sensitization
- **SKI** Skin sensitization/irritation/corrosivity
- **LAN** Land Toxicity
- **NF** Not found on Priority Hazard Lists

**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 Unspec ed (insufficient data to benchmark)

- **LT-P1** List Translator Possible Benchmark 1
- **LT-1** List Translator Likely Benchmark 1
- **LT-UNK** List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
- **NoGS** Unknown (no data on List Translator Lists)
Recycled Types

PreC Preconsumer (Post-Industrial)
PostC Postconsumer
Both Both Preconsumer and Postconsumer
Unk Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms

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.