

HPD UNIQUE IDENTIFIER: 23269

CLASSIFICATION: 08 81 13 Decorative Glass Glazing

PRODUCT DESCRIPTION: This document covers Goldray Glass's Clear and Colored Laminated product. This product of 6mm (1/4") to 38mm (1 1/2") in total thickness is composed of at least two sheets of glass and an interlayer fusing them together. The Clear and Colored Laminated panels are suitable for interior and exterior applications for commercial and residential projects. It is available in various colors. The glass can be Float or tempered. Goldray's Clear and Colored Laminated glass is commonly used as a canopy, partitions, doors, railings, and fenestration. The panel sizes vary between 12"x12" and 72" x 144", subject to the glass makeup.

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

<p><b>Inventory Reporting Format</b></p> <p><input checked="" type="radio"/> Nested Materials Method</p> <p><input type="radio"/> Basic Method</p> <p><b>Threshold Disclosed Per</b></p> <p><input type="radio"/> Material</p> <p><input checked="" type="radio"/> Product</p>	<p><b>Threshold level</b></p> <p><input type="radio"/> 100 ppm</p> <p><input checked="" type="radio"/> 1,000 ppm</p> <p><input type="radio"/> Per GHS SDS</p> <p><input type="radio"/> Other</p>	<p><b>Residuals/Impurities</b></p> <p>Residuals/Impurities</p> <p>Considered in 5 of 5 Materials</p> <p><b>Explanation(s) provided for Residuals/Impurities?</b></p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>	<p><i>All Substances Above the Threshold Indicated Are:</i></p> <p><b>Characterized</b> <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>% weight and role provided for all substances.</i></p> <p><b>Screened</b> <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>All substances screened using Priority Hazard Lists with results disclosed.</i></p> <p><b>Identified</b> <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>All substances disclosed by Name (Specific or Generic) and Identifier.</i></p>
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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**

**FLOAT AND TEMPERED GLASS [ GLASS, OXIDE, CHEMICALS ] LT-UNK**  
**[ PVB INTERLAYER [ POLYVINYL BUTYRAL ] LT-UNK ]**  
**HEXANEDIOIC ACID, 1,6-BIS(2-BUTOXYETHYL) ESTER NoGS ]**  
**COLORED PVB INTERLAYER [ ACETIC ACID ETHENYL ESTER, POLYMER WITH 1,1-BIS(ETHENYLOXY)BUTANE AND ETHENOL ] LT-UNK**  
**HEXANOIC ACID, 2-ETHYL-, 1,2-ETHANEDIYLBIS(OXY-2,1-ETHANEDIYL) ESTER ] LT-UNK**  
**CALCIUM CARBONATE ] BM-3 ]**  
**SGP INTERLAYER [ 2-PROPENOIC ACID, 2-METHYL-, POLYMER WITH ETHENE, SODIUM SALT ] LT-UNK ]**  
**EVA INTERLAYER [ ACETIC ACID ETHENYL ESTER, POLYMER WITH ETHENE ] LT-UNK ]**

Number of Greenscreen BM-4/BM3 contents ... 1  
 Contents highest concern GreenScreen Benchmark or List translator Score ... LT-UNK  
 Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This report discloses hazards associated with the substances present at a minimum amount of 1000 ppm in the product.

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: CDPH Standard Method V1.2 (Section 01350/CHPS) - Classroom & Office scenario

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2020-12-14

PUBLISHED DATE: 2020-12-23

EXPIRY DATE: 2023-12-14

## 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 2.2, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-2-standard](http://www.hpd-collaborative.org/hpd-2-2-standard)

### FLOAT AND TEMPERED GLASS

%: 90.0000 - 100.0000

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Glass

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities are considered and noted when the concentration is above 1000ppm

OTHER MATERIAL NOTES:

### GLASS, OXIDE, CHEMICALS

ID: 65997-17-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-12-14

%: 60.0000 - 100.0000

GS: LT-UNK

RC: None

NANO: Unknown

SUBSTANCE ROLE: Glass component

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES:

### PVB INTERLAYER

%: 0.0000 - 5.0000

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities are considered and noted when the concentration is above 1000ppm

OTHER MATERIAL NOTES:

**POLYVINYLBUTYRAL**

ID: 63148-65-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-12-14**

#: **0.0000 - 60.0000** GS: **LT-UNK** RC: **None** NANO: **Unknown** SUBSTANCE ROLE: **Polymer species**

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

SUBSTANCE NOTES:

**HEXANEDIOIC ACID, 1,6-BIS(2-BUTOXYETHYL) ESTER**

ID: 141-18-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-12-14**

#: **0.0000 - 5.0000** GS: **NoGS** RC: **None** NANO: **Unknown** SUBSTANCE ROLE: **Curing agent**

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

SUBSTANCE NOTES:

**COLORED PVB INTERLAYER**

#: **0.0000 - 5.0000**

PRODUCT THRESHOLD: **1000 ppm** RESIDUALS AND IMPURITIES CONSIDERED: **Yes** MATERIAL TYPE: **Polymeric Material**

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities are considered and noted when the concentration is above 1000ppm

OTHER MATERIAL NOTES:

**ACETIC ACID ETHENYL ESTER, POLYMER WITH 1,1-BIS(ETHENYLOXY)BUTANE AND ETHENOL**

ID: 27360-07-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-12-14**

%: **0.0000 - 50.0000** GS: **LT-UNK** RC: **None** NANO: **Unknown** SUBSTANCE ROLE: **Polymer species**

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

SUBSTANCE NOTES:

**HEXANOIC ACID, 2-ETHYL-, 1,2-ETHANEDIYLBIS(OXY-2,1-ETHANEDIYL) ESTER**

ID: 94-28-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-12-14**

%: **0.0000 - 20.0000** GS: **LT-UNK** RC: **None** NANO: **Unknown** SUBSTANCE ROLE: **Curing agent**

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

SUBSTANCE NOTES:

**CALCIUM CARBONATE**

ID: 471-34-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-12-14**

%: **0.0000 - 5.0000** GS: **BM-3** RC: **None** NANO: **Unknown** SUBSTANCE ROLE: **Binder**

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

SUBSTANCE NOTES:

**SGP INTERLAYER**

%: **0.0000 - 5.0000**

PRODUCT THRESHOLD: **1000 ppm** RESIDUALS AND IMPURITIES CONSIDERED: **Yes** MATERIAL TYPE: **Polymeric Material**

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities are considered and noted when the concentration is above 1000ppm

OTHER MATERIAL NOTES:

**2-PROPENOIC ACID, 2-METHYL-, POLYMER WITH ETHENE, SODIUM SALT**

ID: 25608-26-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2020-12-14**

%: **0.0000 - 55.0000** GS: **LT-UNK** RC: **None** NANO: **Unknown** SUBSTANCE ROLE: **Polymer species**

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

SUBSTANCE NOTES:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities are considered and noted when the concentration is above 1000ppm

OTHER MATERIAL NOTES:

**ACETIC ACID ETHENYL ESTER, POLYMER WITH ETHENE**

ID: 24937-78-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2020-12-14**%: **0.0000 - 25.0000**GS: **LT-UNK**RC: **None**NANO: **Unknown**SUBSTANCE ROLE: **Polymer species**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES:

## 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

### CDPH Standard Method V1.2 (Section 01350/CHPS) - Classroom & Office scenario

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

ISSUE DATE: 2020-12-14  
EXPIRY DATE: 2023-12-14

CERTIFIER OR LAB: N/A

CERTIFICATION AND COMPLIANCE NOTES: VOC emissions testing not required for this product type.

## 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.*

### VARIOUS MATERIALS

HPD URL: no hpd available

#### CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Goldray Glass's products are installed using different accessories and/or framing systems which are chosen by designers, architects, engineers and installers. These accessories and frames are manufactured using different materials. The materials will vary depending on the type of installation and final application. For information regarding these accessories, refer to the Health Product Declaration which is provided by the accessory or framing manufacturer.

## Section 5: General Notes

Goldray Glass has several suppliers for Soda-lime glass. The suppliers have all confirmed that there are no residuals and/or impurities left on the surfaces of the glass. All glass brought in from one of our suppliers have achieved a material health rating of Gold, their glass products have been tested and the results show no exposure from carcinogens, mutagens, or reproductive toxicants. The glass product is fully optimized, does not contain any grey or x-assessed chemicals. Another supplier regularly analyzes all glasses with an elemental detection limit of 10 ppm maximum. Lead, Chromium, Arsenic, Antimony, Vanadium, and Cadmium may rarely be present in float glass as trace level contaminants and are not present at a level greater than 20 ppm. Therefore they are not included in the Health Product Declaration. Cobalt, Selenium, and Nickel may be added to impart color to some tinted glasses. Cobalt is never present at a level greater than 300 ppm, Selenium is never present at a level higher than 50 ppm, Nickel is typically not present at a level higher than 200 ppm but can reach 800 ppm in some specific dark grey glass products. The other suppliers did not provide any statement regarding the impurities present.

**MANUFACTURER INFORMATION**

MANUFACTURER: **Goldray Glass**  
 ADDRESS: **4605 52nd Avenue SE**  
**Calgary Alberta T2C 4N7, Canada**  
 WEBSITE: **www.goldrayglass.com**

CONTACT NAME: **Prince Ruchogeza**  
 TITLE: **Industrial Scientist**  
 PHONE: **800.640.3709**  
 EMAIL: **info@goldrayglass.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-1</b> List Translator 1 (Likely Benchmark-1)
<b>BM-3</b> Benchmark 3 (use but still opportunity for improvement)	<b>LT-UNK</b> 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.)
<b>BM-2</b> Benchmark 2 (use but search for safer substitutes)	
<b>BM-1</b> Benchmark 1 (avoid - chemical of high concern)	
<b>BM-U</b> Benchmark Unspecified (due to insufficient data)	
<b>LT-P1</b> List Translator Possible 1 (Possible Benchmark-1)	<b>NoGS</b> 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.*