

HPD UNIQUE IDENTIFIER: 25794

CLASSIFICATION: 08 81 13 Decorative Glass Glazing

PRODUCT DESCRIPTION: This document covers Goldray's clear and Starphire tempered product from 1/8mm to 3/4mm in total thickness. Tempered glass is suitable for interior and exterior applications. The panel sizes varies between 12"x12" and 72" x 144", subject to the glass makeup.

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

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

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
NON-COATED FLOAT GLASS [GLASS, OXIDE, CHEMICALS LT-UNK
SODA ASH LT-UNK | EYE CALCIUM MAGNESIUM CARBONATE NoGS
CALCIUM CARBONATE LT-UNK SODA LIME LT-UNK SULFURIC ACID
DISODIUM SALT LT-UNK CHROMIUM, METAL AND CHROMIUM(III)
COMPOUNDS LT-UNK | SKI SODIUM NITRATE LT-UNK]

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:

This report discloses hazards associated with the substances present at a minimum of 100 ppm in the product. Clear and starphire panels are composed of two lites of float or tempered glass with a polymer dispersed liquid crystal film between two or more pieces of laminating sheets.

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: Clean Air Gold
 VOC content: Architectural Glasses (uncoated and Coated)

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1 and Option 2

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2021-08-13

PUBLISHED DATE: 2021-08-13

EXPIRY DATE: 2024-08-13

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

NON-COATED FLOAT GLASS

#: 100.0000 - 100.0000

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Other: Not Set

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities are considered and noted when the concentration is above 100ppm

OTHER MATERIAL NOTES:

GLASS, OXIDE, CHEMICALS

ID: 65997-17-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-08-13 8:49:05

#: 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:

SODA ASH

ID: 497-19-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-08-13 8:49:06

#: 0.0000 - 20.0000

GS: LT-UNK

RC: None

NANO: Unknown

SUBSTANCE ROLE: Glass component

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

EYE

EU - GHS (H-Statements)

H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]

SUBSTANCE NOTES:

CALCIUM MAGNESIUM CARBONATE

ID: 16389-88-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-08-13 8:49:06

#: 0.0000 - 15.0000

GS: NoGS

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:

CALCIUM CARBONATE

ID: 1317-65-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-08-13 8:49:06

#: 0.0000 - 10.0000

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:		

SODA LIME

ID: 8006-28-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-08-13 8:49:07	
#: 0.0000 - 5.0000	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:			

SULFURIC ACID DISODIUM SALT

ID: 7757-82-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-08-13 8:49:07	
#: 0.0000 - 1.0000	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:			

CHROMIUM, METAL AND CHROMIUM(III) COMPOUNDS

ID: 19498-56-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-08-13 8:49:08	
#: 0.0000 - 1.0000	GS: LT-UNK	RC: None	NANO: Unknown SUBSTANCE ROLE: Glass component
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS	
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization	
SUBSTANCE NOTES:			

SODIUM NITRATE

ID: 15621-57-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-08-13 8:49:08	
#: 0.0000 - 1.0000	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:			

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	Clean Air Gold		
CERTIFYING PARTY: Intertek	ISSUE DATE: 2021-04-30	EXPIRY DATE: 2022-04-29	CERTIFIER OR LAB: Intertek
APPLICABLE FACILITIES: All			
CERTIFICATE URL: https://sustainabilitydirectory.intertek.com/certificate/a0992c5a-bd4a-4aed-ae48-547655073a6d			
CERTIFICATION AND COMPLIANCE NOTES: Passed the VOC emission test for private office, school classroom, and Single Family Residence following Standard Method Verison 1.2 for CDPH 01350.			

VOC CONTENT	Architectural Glasses (uncoated and Coated)		
CERTIFYING PARTY: Cradle to Cradle	ISSUE DATE: 2020-11-11	EXPIRY DATE: 2022-04-23	CERTIFIER OR LAB: MBDC
APPLICABLE FACILITIES: No Facilities			
CERTIFICATE URL: https://www.vitroglazings.com/media/cuwgyt4/c2c-certificate.pdf			
CERTIFICATION AND COMPLIANCE NOTES: Licensed to Vitro Architectural Glass			

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 that 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 Ave 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

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

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	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.)
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)	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.