

HPD UNIQUE IDENTIFIER: 1776623049728

CLASSIFICATION: 08 81 13 Decorative Glass Glazing

PRODUCT DESCRIPTION: This document covers Goldray Glass's Laminated products. These products of 6mm (1/4") to 22mm (7/8") in total thickness are composed of at least two sheets of glass and an interlayer fusing them. Laminated glass panels are suitable for interior and exterior applications for commercial and residential projects. The laminated glass panel is commonly used as canopies, railings, partition walls, and doors. Goldray Glass's Laminated glass is available in many finishes and colors. The glass used can be either Float or heat treated. 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

Inventory Reporting Format	Threshold Level	Residuals/Impurities Evaluation	
☒ Nested Materials Method	☒ 100 ppm	Completed in 5 of 5 Materials	<i>For all contents above the threshold, the manufacturer has:</i>
☐ Basic Method	☐ 1,000 ppm	Explanation(s) provided for Residuals/Impurities?	Characterized ☒ Yes ☐ No
Threshold Disclosed Per	☐ Per GHS SDS		<i>Provided weight and role.</i>
☐ Material	☐ Other	☒ Yes ☐ No	Screened ☒ Yes ☐ No
☒ Product			<i>Provided screening results using HPDC-approved methods.</i>
			Identified ☒ Yes ☐ No
			<i>Provided name and CAS RN or other identifier.</i>

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.

NESTED MATERIAL | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY

GREENSCREEN SCORE | HAZARD TYPE

NON-COATED FLOAT GLASS [GLASS, OXIDE, CHEMICALS LT-UNK
SODA ASH BM-2 | EYE | MAM | SKI CALCIUM MAGNESIUM
CARBONATE NoGS CALCIUM CARBONATE BM-3dg SODA LIME LT-
UNK | SKI | EYE SODIUM NITRATE LT-UNK CHROMIUM, METAL AND
CHROMIUM(III) COMPOUNDS LT-UNK | SKI SULFURIC ACID
DISODIUM SALT LT-UNK | MAM] OPTION 2: PVB [HEXANEDIOIC
ACID, 1,6-BIS(2-BUTOXYETHYL) ESTER NoGS POLYVINYL BUTYRAL
LT-UNK] OPTION 3: COLORED PVB [CALCIUM CARBONATE BM-3 |
EYE HEXANOIC ACID, 2-ETHYL-, 1,2-ETHANEDIYLBIS(OXY-2,1-
ETHANEDIYL) ESTER LT-UNK ACETIC ACID ETHENYL ESTER,
POLYMER WITH 1,1-BIS(ETHENYLOXY) BUTANE AND ETHENOL LT-
UNK] OPTION 1: SGP [2-PROPENOIC ACID, 2-METHYL-, POLYMER
WITH ETHENE, SODIUM SALT LT-UNK] OPTION 4: EVA [ACETIC
ACID ETHENYL ESTER, POLYMER WITH ETHENE LT-UNK VINYL
ACETATE LT-P1 | CAN | END | MUL | MAM | PHY | GEN | SKI | EYE |
REP | AQU 2,4-PENTANEDIONE, PEROXIDE LT-P1 | EYE | PHY ETHYL
ACRYLATE LT-1 | CAN | SKI | MUL | EYE | PHY | MAM | AQU PHENOL
LT-P1 | CAN | END | MUL | MAM | REP | SKI | GEN | EYE | AQU SILANE
LT-UNK | MAM | EYE | SKI | PHY TRIMETHYLOLPROPANE
PHOSPHITE LT-UNK | MAM]

Number of Greenscreen BM-4/BM3 contents ... 2

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This report discloses hazards associated with the substances present at a minimum amount of 100 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: California Department of Public Health (CDPH) Standard Method v1.2: Private Office and School Classroom

CONSISTENCY WITH OTHER PROGRAMS

Third Party Verified?

☐ Yes

☒ No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2025-01-03

PUBLISHED DATE: 2025-01-03

EXPIRY DATE: 2028-01-03

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 2.3, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-3-standard

NON-COATED FLOAT GLASS

?: 80.0000 - 89.0000

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Glass

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

OTHER MATERIAL NOTES: This is the composition of the main material in this product

GLASS, OXIDE, CHEMICALS

ID: 65997-17-3

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2025-01-03 11:06:24

?: 60.0000 - 87.0000 GreenScreen: LT-UNK RC: None NANO: Unknown SUBSTANCE ROLE: Glass component

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
EXEMPT	European Union / European Commission (EU EC)	EU - REACH Exemptions Exempted from REACH Annex V listing due to intrinsic safety

SUBSTANCE NOTES: Depending on the total thickness of the glass, the concentration range of this component varies.

SODA ASH

ID: 497-19-8

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2025-01-03 11:06:24

?: 0.0000 - 20.0000 GreenScreen: BM-2 RC: None NANO: Unknown SUBSTANCE ROLE: Glass component

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
SKI	GHS - New Zealand	Skin irritation category 2
EYE	GHS - New Zealand	Eye irritation category 2
EYE	GHS - Japan	H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]
EYE	GHS - Australia	H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists
SUBSTANCE NOTES:		

CALCIUM MAGNESIUM CARBONATEID: 16389-88-1

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2025-01-03 11:06:25		
%: 0.0000 - 15.0000	GreenScreen: NoGS	RC: None	NANO: Unknown	SUBSTANCE ROLE: Glass component
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
None found		No listings found on Additional Hazard Lists		
SUBSTANCE NOTES:				

CALCIUM CARBONATEID: 1317-65-3

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2025-01-03 11:06:25		
%: 0.0000 - 10.0000	GreenScreen: BM-3dg	RC: None	NANO: Unknown	SUBSTANCE ROLE: Glass component
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found		No warnings found on HPD Priority Hazard Lists		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found		No listings found on Additional Hazard Lists		
SUBSTANCE NOTES:				

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:26		
%: 0.0000 - 5.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Glass component	
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS		
SKI	GHS - New Zealand		Skin corrosion category 1C		
EYE	GHS - New Zealand		Serious eye damage category 1		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION		
None found			No listings found on Additional Hazard Lists		
SUBSTANCE NOTES:					

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:25		
%: 0.0000 - 1.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Glass component	
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS			
None found		No warnings found on HPD Priority Hazard Lists			
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION			
None found		No listings found on Additional Hazard Lists			
SUBSTANCE NOTES:					

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:24		
%: 0.0000 - 1.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Glass component	
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS		
SKI	MAK		Sensitizing Substance Sh - Danger of skin sensitization		

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.0 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 v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
		Children's Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024
		Children's Toy Products
SUBSTANCE NOTES:		

SULFURIC ACID DISODIUM SALT

ID: 7757-82-6

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2025-01-03 11:06:24	
%: 0.0000 - 1.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown SUBSTANCE ROLE: Glass component
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS	
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION	
None found		No listings found on Additional Hazard Lists	
SUBSTANCE NOTES:			

OPTION 2: PVB

%: 0.0000 - 10.0000

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Polymeric Material

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

OTHER MATERIAL NOTES: Depending on the choice of laminate, this material might not be present in the product.

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:26	
%: 0.0000 - 100.0000	GreenScreen: NoGS	RC: None	NANO: Unknown	SUBSTANCE ROLE: Binder
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
None found		No listings found on Additional Hazard Lists		
SUBSTANCE NOTES: Depending on the total thickness of the glass, the concentration range of this component varies.				

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:25	
%: 0.0000 - 100.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Film former
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
None found		No listings found on Additional Hazard Lists		
SUBSTANCE NOTES: Depending on the total thickness of the glass, the concentration range of this component varies.				

OPTION 3: COLORED PVB

%: 0.0000 - 10.0000

PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes	MATERIAL TYPE: Polymeric Material
RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities are considered and noted when the concentration is above 100ppm		
OTHER MATERIAL NOTES: Depending on the choice of laminate, this material might not be present in the product.		

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:28	
%: 40.0000 - 50.0000	GreenScreen: BM-3	RC: None	NANO: Unknown	SUBSTANCE ROLE: Binder
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
EYE	GHS - New Zealand	Eye irritation category 2		

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists
SUBSTANCE NOTES:		

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

ID: 94-28-0

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:27	
%: 0.0000 - 50.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Film former
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
RESTRICTED LIST	Green Science Policy Institute (GSPI)		GSPI - Six Classes Precautionary List	
			Some Solvents	
SUBSTANCE NOTES: Depending on the total thickness of the glass, the concentration range of this component varies.				

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

ID: 27360-07-2

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:26	
%: 30.0000 - 40.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Polymer species
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No listings found on Additional Hazard Lists	
SUBSTANCE NOTES: Depending on the total thickness of the glass, the concentration range of this component varies.				

OPTION 1: SGP

%: 0.0000 - 10.0000

PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes	MATERIAL TYPE: Polymeric Material
RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities are considered and noted when the concentration is above 100ppm		
OTHER MATERIAL NOTES: Depending on the choice of laminate, this material might not be present in the product.		

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:28	
%: 85.0000 - 100.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Sealant
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No listings found on Additional Hazard Lists	
SUBSTANCE NOTES: Depending on the total thickness of the glass, the concentration range of this component varies.				

OPTION 4: EVA

%: 0.0000 - 1.0000

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Polymeric Material

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

OTHER MATERIAL NOTES: Depending on the choice of laminate, this material might not be present in the product.

ACETIC ACID ETHENYL ESTER, POLYMER WITH ETHENE

ID: 24937-78-8

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:28	
%: 0.0000 - 100.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Polymer species
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No listings found on Additional Hazard Lists	
SUBSTANCE NOTES: Depending on the total thickness of the glass, the concentration range of this component varies.				

VINYL ACETATE

ID: 108-05-4

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:27	
%: 10.0000 - 20.0000	GreenScreen: LT-P1	RC: None	NANO: Unknown	SUBSTANCE ROLE: Polymer species

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
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
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CAN	IARC	Group 2b - Possibly carcinogenic to humans
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances
CAN	GHS - Japan	H350 - May cause cancer [Carcinogenicity - Category 1B]
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
GEN	GHS - New Zealand	Germ cell mutagenicity category 1
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
SKI	GHS - New Zealand	Skin irritation category 2
EYE	GHS - New Zealand	Eye irritation category 2
CAN	GHS - New Zealand	Carcinogenicity category 2
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 - New Zealand	Acute inhalation toxicity category 3
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]
REP	GHS - New Zealand	Reproductive toxicity category 2
AQU	GHS - Japan	H401 - Toxic to aquatic life [Hazardous to the aquatic environment (acute) - 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]
CAN	GHS - Australia	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List
		Some Solvents
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022
		Children's Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024
		Cosmetics and Personal Care Products

SUBSTANCE NOTES:

2,4-PENTANEDIONE, PEROXIDE

ID: 37187-22-7

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2025-01-03 11:06:27

%: 0.0000 - 10.0000

GreenScreen: LT-P1

RC: None

NANO: Unknown

SUBSTANCE ROLE: Diluent

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
EYE	GHS - New Zealand	Serious eye damage category 1
PHY	GHS - New Zealand	Organic peroxide type D

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

ETHYL ACRYLATE

ID: 140-88-5

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2025-01-03 11:06:28

%: 0.0000 - 10.0000

GreenScreen: LT-1

RC: None

NANO: Unknown

SUBSTANCE ROLE: Solvent

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CAN	CA EPA - Prop 65	Carcinogen
CAN	IARC	Group 2b - Possibly carcinogenic to humans

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]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
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 - 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]
MAM	GHS - Japan	H331 - Toxic if inhaled [Acute toxicity (inhalation: vapor) - Category 3]
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 - chronic category 3
SKI	GHS - New Zealand	Skin sensitisation category 1
AQU	GHS - Japan	H401 - Toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 2]
AQU	GHS - Japan	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - 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 - Australia	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
MAM	Québec CSST - WHMIS 1988	Class D1A - Very toxic material causing immediate and serious toxic effects
MAM	GHS - Australia	H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]
MAM	GHS - New Zealand	Acute dermal toxicity category 3
EYE	GHS - Japan	H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2A]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Children's Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Cosmetics & Personal Care Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024 Children's Toy Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024 Cosmetics and Personal Care Products
SUBSTANCE NOTES:		

PHENOL

ID: 108-95-2

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:29	
%: 0.0000 - 10.0000	GreenScreen: LT-P1	RC: None	NANO: Unknown	SUBSTANCE ROLE: Buffer
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification		
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor		
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters		
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances		
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]		
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]		
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]		

GEN	EU - GHS (H-Statements) Annex 6 Table 3-1	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
GEN	GHS - New Zealand	Germ cell mutagenicity 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 - 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 - 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]
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	H314 - Causes severe skin burns and eye damage [Skin corrosion / irritation - Category 1]
SKI	GHS - Australia	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 2
REP	GHS - New Zealand	Reproductive toxicity category 2
SKI	GHS - Korea	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1]
SKI	GHS - New Zealand	Skin corrosion category 1B
AQU	GHS - Japan	H401 - Toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 2]
AQU	GHS - Japan	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - 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]
GEN	GHS - Korea	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
AQU	GHS - Korea	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
MAM	Québec CSST - WHMIS 1988	Class D1A - Very toxic material causing immediate and serious toxic effects
GEN	EU - Annex VI CMRs	Mutagen - Category 2

GEN	GHS - New Zealand	Germ cell mutagenicity category 2
MAM	GHS - Japan	H311 - Toxic in contact with skin [Acute Toxicity (dermal) - 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]
SKI	GHS - Malaysia	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
EYE	GHS - Malaysia	H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]
GEN	GHS - Malaysia	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
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
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Antimicrobials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4.0 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 v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Cosmetics & Personal Care Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2024 Cosmetics and Personal Care Products
SUBSTANCE NOTES:		

SILANE		ID: 7803-62-5	
HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2025-01-03 11:06:29	
%: 0.0000 - 10.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown SUBSTANCE ROLE: Adhesive

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
EYE	GHS - New Zealand	Eye irritation category 2
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]
PHY	GHS - Japan	H220 - Extremely flammable gas [Flammable gases - Category 1]
EYE	GHS - Japan	H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2A]
PHY	GHS - New Zealand	Flammable gas category 1A, pyrophoric gas
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists
SUBSTANCE NOTES:		

TRIMETHYLOLPROPANE PHOSPHITE

ID: 824-11-3

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2025-01-03 11:06:29	
%: 0.0000 - 10.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Binder
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
None found		No listings found on Additional 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

California Department of Public Health (CDPH) Standard Method v1.2: Private Office and School Classroom

CERTIFYING PARTY: Intertek
APPLICABLE FACILITIES: All
CERTIFICATE URL:
<https://sustainabilitydirectory.intertek.com/certificate/a0992c5a-bd4a-4aed-ae48-547655073a6d>

ISSUE DATE: 2022-04-04 00:00:00
EXPIRY DATE: 2025-04-26 00:00:00

CERTIFIER OR LAB: Intertek

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.

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

MANUFACTURER (OR GENERIC): Generic

HPD URL: no hpd available

ACCESSORY TYPE: Installation Accessory

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
COUNTRY: **Canada**

WEBSITE: **<https://www.goldrayglass.com/>**
CONTACT NAME: **Prince Ruchogeza**
TITLE: **VP of Innovation & Sustainability**
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-P1 List Translator Possible 1 (Possible Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS No GreenScreen.
BM-U 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, and Best Practices for Hazard Screening on the HPDC website (hpd-collaborative.org).

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

