

HPD UNIQUE IDENTIFIER: 26674

CLASSIFICATION: 08 81 00 Glass Glazing

PRODUCT DESCRIPTION: Multiver's insulating glass HPD covers double or triple units. These units are available in an array of options and combinations: monolithic, laminated, energetic, clear, ultra clear, tinted, reflective, heat treated or regular glass. Furthermore, the glass can be opacified (spandrel glass) with a coating based on ceramic or silicone (Opaci-Coat 300®) and be assembled with regular or nonconductive spacers. Multiver's product line does not only allow them to contribute to the aesthetics of buildings, but can also be designed to meet the energy needs of both solar gain control and energy conservation. Multiver's insulating glass complies with the following standards: CAN/CGSB 12.8 Insulating Glass Units and ASTM E2190 Standard Specification for Insulating Glass Unit Performance and Evaluation.

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>
<input checked="" type="radio"/> Nested Materials Method	<input type="radio"/> 100 ppm	Considered in 12 of 12 Materials	Characterized <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No
<input type="radio"/> Basic Method	<input checked="" type="radio"/> 1,000 ppm	Explanation(s) provided for Residuals/Impurities?	<i>% weight and role provided for all substances.</i>
Threshold Disclosed Per	<input type="radio"/> Per GHS SDS	<input checked="" type="radio"/> Yes <input type="radio"/> No	Screened <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No
<input type="radio"/> Material	<input type="radio"/> Other		<i>All substances screened using Priority Hazard Lists with results disclosed.</i>
<input checked="" type="radio"/> Product			Identified <input type="radio"/> Yes Ex/SC <input type="radio"/> Yes <input checked="" type="radio"/> No
			<i>One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.</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.

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

GLASS [SODA LIME BOROSILICATE GLASS LT-UNK] DESSICANT [ZEOLITES LT-UNK QUARTZ BM-1 | CAN] POLYISOBUTYLENE (PIB) PRIMARY SEALANT ALUMINUM SPACER BAR (OPTION 1) [ALUMINUM BM-1 | END | RES | PHY IRON, ELEMENTAL LT-P1 | END SILICON, ELEMENTAL LT-UNK MANGANESE LT-P1 | END | MUL | REP] STAINLESS STEEL SPACER BAR (OPTION 2) [NICKEL LT-1 | CAN | RES | MUL | SKI | MAM IRON, ELEMENTAL LT-P1 | END MOLYBDENUM LT-UNK MANGANESE LT-P1 | END | MUL | REP ALUMINUM BM-1 | END | RES | PHY TITANIUM LT-UNK TANTALUM LT-UNK | CAN NIOBIUM LT-UNK TUNGSTEN LT-UNK COPPER LT-UNK CHROMIUM LT-P1 | END | SKI | RES] SILICONE SECONDARY SEALANT (OPTION1) [SILOXANES AND SILICONES, DI-ME, HYDROXY-TERMINATED BM-2 CALCIUM CARBONATE BM-3 DIMETHICONE LT-P1 | PBT 3-(TRIETHOXYSILYL)PROPYLAMINE LT-UNK | SKI FATTY ACIDS, C16-18 LT-UNK TETRAPROPYL ORTHOSILICATE NoGS QUARTZ BM-1 | CAN DIMETHICONE LT-P1 | PBT CARBON BLACK BM-1 | CAN] HOT-MELT SECONDARY SEALANT (OPTION 2) [UNDISCLOSED LT-UNK TALC BM-1 | CAN UNDISCLOSED LT-UNK UNDISCLOSED LT-P1 4,4'-DIPHENYLMETHANE DIISOCYANATE LT-UNK | MUL | RES | CAN | SKI | EYE UNDISCLOSED NoGS] STEEL REINFORCED POLYMER SPACER BAR (OPTION 3) [POLYPROPYLENE LT-UNK UNS S30100 STAINLESS STEEL ALLOY NoGS STEEL NoGS UNDISCLOSED LT-UNK POLYETHYLENE LT-UNK] CERAMIC FRIT COATING [FRITS, CHEMICALS LT-P1 | MUL TITANIUM DIOXIDE LT-1 | CAN | END] OPACI-COAT 300® [SILOXANES AND SILICONES, DI-ME, HYDROXY-TERMINATED BM-2 SILICON DIOXIDE BM-1 | CAN C.I. PIGMENT GREEN 50 LT-1 | RES | CAN | GEN NICKEL RUTILE YELLOW LT-1 | CAN

Number of Greenscreen BM-4/BM3 contents ... 3

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This Health Product Declaration (HPD) discloses hazards associated with all substances present at or above 1000 parts per million (ppm) in the finished product. Ranges are used to cover Multiver's insulated glass unit composed of glass, primary sealant (1 option), spacer bar (3 options), dessicant (1 option) and secondary sealant (2 options). the HPD also covers Insulated Glass Unit without or with Ceramic Frit or Opaci-Coat 300® coating, as well as laminated glass or not. Guidelines for reporting Float Glass are still under development by the HPDC. Multiver will update the HPD accordingly once these guidelines get published. Metal alloys are reported with c with detailed metal alloy composition as specified in the draft SC: Metal Alloys/2020-08-06 guidelines. Some substances are not identified as they are proprietary.

| RES FERRIC OXIDE BM-1 | CAN CI 77346 LT-1 | RES | CAN | GEN
FERRIC OXIDE, YELLOW LT-UNK CARBON BLACK BM-1 | CAN C.I.
74265 LT-UNK CINQUASIA RED LT-UNK PIGMENT BLUE 15 BM-3 C.I.
PIGMENT YELLOW 83 LT-P1 ALUMINUM HYDROXIDE, DRIED BM-2
TITANIUM DIOXIDE LT-1 | CAN | END C.I. PIGMENT YELLOW 227,
NIOBIUM SULFUR TIN ZINC OXIDE NoGS C.I. PIGMENT YELLOW 216,
RUTILE, TIN ZINC NoGS] POLYVINYL BUTYRAL (PVB) INTERLAYER [
UNDISCLOSED LT-UNK ACETIC ACID ETHENYL ESTER, POLYMER
WITH 1,1-BIS(ETHENYLOXY)BUTANE AND ETHENOL LT-UNK
CALCIUM CARBONATE BM-3 ANATASE (TiO2) LT-1 | CAN BIS(2-
BUTOXYETHYL) ADIPATE NoGS UNDISCLOSED LT-UNK
UNDISCLOSED LT-1 | CAN | END] IONOPLAST INTERLAYER [ETHENE
SODIUM POLYMER WITH METHACRYLIC ACID LT-UNK]

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) - Not tested

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

Yes

No

PREPARER: Vertima

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2021-12-07

PUBLISHED DATE: 2021-12-07

EXPIRY DATE: 2024-12-07

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

GLASS

#: 88.3000 - 99.9000

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Glass

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities are reported by the manufacturers at or above the declaration threshold.

OTHER MATERIAL NOTES: Weight percentage are used to cover insulated glass units with the various spaces and sealants. Clear, ultraclear, tinted or pre-coated glass with solar control properties or low emissivity properties are considered 100% glass by manufacturers at and above 100 ppm.

SODA LIME BOROSILICATE GLASS

ID: 65997-17-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2021-12-07 9:36:59

#: 100.0000

GS: LT-UNK

RC: Both

NANO: No

SUBSTANCE ROLE: Structure component

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Recycled content varies by manufacturer. Pre Consumer recycled content varies between 0% - 20% and Post Consumer recycled content varies between 0% - 3%.

DESSICANT

#: 0.0100 - 1.6000

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Geologically Derived Material

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities at or above the declaration threshold reported by the manufacturer.

OTHER MATERIAL NOTES: Percent weight interval used to cover different insulated glass configuration and glass thickness.

ZEOLITES

ID: 1318-02-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:02**%: **70.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Humectant**

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

SUBSTANCE NOTES:

QUARTZ

ID: 14808-60-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:06**%: **30.0000** GS: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Filler**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	US NIH - Report on Carcinogens	Known to be Human Carcinogen (respirable size - occupational setting)
CAN	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CAN	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
CAN	IARC	Group 1 - Agent is Carcinogenic to humans
CAN	GHS - New Zealand	6.7A - Known or presumed human carcinogens
CAN	GHS - Japan	H350 - May cause cancer [Carcinogenicity - Category 1A]
CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]

SUBSTANCE NOTES:

POLYISOBUTYLENE (PIB) PRIMARY SEALANT %: 0.0000 - 0.1000

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

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities presente at or above the declaration threshold.

OTHER MATERIAL NOTES: The substances present in the PIB are under the declaration threshold. All substances in this material are below the reportable threshold.

ALUMINUM SPACER BAR (OPTION 1) %: 0.0000 - 1.2000

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: Yes MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities at or above the declaration threshold reported by the manufacturer.

OTHER MATERIAL NOTES: Percent weight interval is used as three (3) spacer bar options are available: Aluminum spacer bar, Stainless Steel spacer bar or Polymer spacer bar. Aluminum Spacer Bar composition reported with detailed metal alloy composition.

ALUMINUM

ID: 7429-90-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:00**%: **97.0000 - 99.9000** GS: **BM-1** RC: **Both** NANO: **No** SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H228 - Flammable solid [Flammable solids - Category 1 or 2]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H261 - In contact with water releases flammable gases [Substances and mixtures which, in contact with water, emit flammable gases - Category 2 or 3]

SUBSTANCE NOTES: The manufacturer declared 44% Pre Consumer and 37% Post Consumer recycled content. Percent weight interval is used to cover product variability.

IRON, ELEMENTAL

ID: 7439-89-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:14**%: **0.0500 - 1.7000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Percent weight interval is used to cover product variability.

SILICON, ELEMENTAL

ID: 7440-21-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:14**%: **0.0500 - 1.7000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Percent weight interval is used to cover product variability.

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:15**%: **0.0300 - 1.5000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]

SUBSTANCE NOTES: Percent weight interval is used to cover product variability.

STAINLESS STEEL SPACER BAR (OPTION 2)

#: 0.0000 - 1.5000

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities present at or above the declaration threshold reported by the manufacturer.

OTHER MATERIAL NOTES: Percent weight interval is used as three (3) spacer bar options are available: Aluminum spacer bar, Stainless Steel spacer bar or Polymer spacer bar. Stainless Steel Spacer Bar composition reported with detailed metal alloy composition.

NICKEL

ID: 7440-02-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: 2021-12-07 9:37:05

#: 30.0000 - 100.0000

GS: LT-1

RC: PostC

NANO: No

SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CAN	IARC	Group 1 - Agent is Carcinogenic to humans
CAN	CA EPA - Prop 65	Carcinogen
CAN	US NIH - Report on Carcinogens	Known to be a human Carcinogen
CAN	IARC	Group 2b - Possibly carcinogenic to humans
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
CAN	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H317 - May cause an allergic skin reaction [Skin sensitization - Category 1]
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]

SUBSTANCE NOTES: The manufacturer declared a 75% Post Consumer recycled content.

Percent weight interval is used to cover multiple Nickel-Base Alloys.

IRON, ELEMENTAL

ID: 7439-89-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: 2021-11-09 12:54:10

#: 0.0000 - 42.0000

GS: LT-P1

RC: None

NANO: No

SUBSTANCE ROLE: **Structure component**

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

SUBSTANCE NOTES: Percent weight interval is used to cover multiple Nickel-Base Alloys.

MOLYBDENUM

ID: 7439-98-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-12-07 9:37:28		
#: 0.0000 - 26.0000	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Alloy element

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

SUBSTANCE NOTES: Percent weight interval is used to cover multiple Nickel-Base Alloys.

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-12-07 9:37:31		
#: 0.0000 - 5.0000	GS: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Alloy element

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]

SUBSTANCE NOTES: Percent weight interval is used to cover multiple Nickel-Base Alloys.

ALUMINUM

ID: 7429-90-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-12-07 9:37:31		
#: 0.0000 - 5.0000	GS: BM-1	RC: None	NANO: No	SUBSTANCE ROLE: Alloy element

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H228 - Flammable solid [Flammable solids - Category 1 or 2]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H261 - In contact with water releases flammable gases [Substances and mixtures which, in contact with water, emit flammable gases - Category 2 or 3]

SUBSTANCE NOTES: Percent weight interval is used to cover multiple Nickel-Base Alloys.

TITANIUM

ID: 7440-32-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-12-07 9:37:30		
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#: 0.0000 - 5.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Alloy element

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Percent weight interval is used to cover multiple Nickel-Base Alloys.

TANTALUM

ID: 7440-25-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2021-12-07 9:37:30

#: 0.0000 - 5.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Alloy element

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

CAN

MAK

Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value

SUBSTANCE NOTES: Percent weight interval is used to cover multiple Nickel-Base Alloys.

NIOBIUM

ID: 7440-03-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2021-12-07 9:37:29

#: 0.0000 - 6.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Alloy element

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Percent weight interval is used to cover multiple Nickel-Base Alloys.

TUNGSTEN

ID: 7440-33-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2021-12-07 9:37:29

#: 0.0000 - 16.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Alloy element

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Percent weight interval is used to cover multiple Nickel-Base Alloys.

COPPER

ID: 7440-50-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2021-12-07 9:37:27

#: 0.0000 - 35.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Alloy element

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Percent weight interval is used to cover multiple Nickel-Base Alloys.

CHROMIUM

ID: 7440-47-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:27**%: **0.0000 - 35.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced

SUBSTANCE NOTES: Percent weight interval is used to cover multiple Nickel-Base Alloys.

SILICONE SECONDARY SEALANT (OPTION1) %: 0.0000 - 7.6000

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

RESIDUALS AND IMPURITIES NOTES: No residues or impurities at or above the declaration threshold reported by the manufacturer.

OTHER MATERIAL NOTES: Percent weight interval is used as two (2) secondary sealant options are available: Silicone or Holt-Melt sealant.

SILOXANES AND SILICONES, DI-ME, HYDROXY-TERMINATED

ID: 70131-67-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:03**%: **45.5000 - 56.0000** GS: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Polymer species**

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

SUBSTANCE NOTES: Percent weight interval is used to cover multiple products.

CALCIUM CARBONATE

ID: 471-34-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:04**%: **36.9000 - 48.8000** GS: **BM-3** RC: **None** NANO: **No** SUBSTANCE ROLE: **Filler**

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

SUBSTANCE NOTES: Percent weight interval is used to cover multiple products.

DIMETHICONE

ID: 63148-62-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-12-07 9:37:10		
%: 2.0000 - 5.0000	GS: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Defoamer
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans		
SUBSTANCE NOTES: Percent weight interval is used to cover multiple products.				

3-(TRIETHOXYSILYL)PROPYLAMINE ID: **919-30-2**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-12-07 9:37:12		
%: 1.0000 - 3.0000	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Adhesive
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
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]		
SUBSTANCE NOTES: Percent weight interval is used to cover multiple products.				

FATTY ACIDS, C16-18 ID: **67701-03-5**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-12-07 9:37:13		
%: 0.9000 - 4.7000	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Surfactant
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
SUBSTANCE NOTES: Percent weight interval is used to cover multiple products.				

TETRAPROPYL ORTHOSILICATE ID: **682-01-9**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-12-07 9:37:13		
%: 0.5000 - 3.0000	GS: NoGS	RC: None	NANO: No	SUBSTANCE ROLE: Monomer
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
SUBSTANCE NOTES: Percent weight interval is used to cover multiple products.				

QUARTZ ID: **14808-60-7**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-11-09 12:54:13		
%: 0.0000 - 0.5000	GS: BM-1	RC: None	NANO: No	SUBSTANCE ROLE: Filler

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	US NIH - Report on Carcinogens	Known to be Human Carcinogen (respirable size - occupational setting)
CAN	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CAN	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
CAN	IARC	Group 1 - Agent is Carcinogenic to humans
CAN	GHS - New Zealand	6.7A - Known or presumed human carcinogens
CAN	GHS - Japan	H350 - May cause cancer [Carcinogenicity - Category 1A]
CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]

SUBSTANCE NOTES: Percent weight interval is used to cover multiple products.

DIMETHICONE

ID: 63148-62-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-12-07 9:37:32		
%: 0.0000 - 1.0000	GS: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Plasticizer
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans		

SUBSTANCE NOTES: Percent weight interval is used to cover multiple products.

CARBON BLACK

ID: 1333-86-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-12-07 9:37:24		
%: 0.0000 - 1.5000	GS: BM-1	RC: None	NANO: No	SUBSTANCE ROLE: Pigment
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen		
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification		
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route		
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources		

SUBSTANCE NOTES: Percent weight interval is used to cover multiple products.

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities at or above the declaration threshold reported by the manufacturer.

OTHER MATERIAL NOTES: Percent weight interval is used as two (2) secondary sealant options are available: Silicone or Holt-Melt sealant.

UNDISCLOSEDID: **Undisclosed**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:05**%: **35.0000 - 45.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Polymer species**

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Percent weight interval is used to protect exact recipe. Furthermore, this substance is undisclosed as it is proprietary.

TALCID: **14807-96-6**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:06**%: **20.0000 - 30.0000** GS: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Filler**

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

CAN MAK Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

CAN IARC Group 2b - Possibly carcinogenic to humans

SUBSTANCE NOTES: Percent weight interval is used to protect exact recipe.

UNDISCLOSEDID: **Undisclosed**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:08**%: **10.0000 - 20.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Tackifier**

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Percent weight interval is used to protect exact recipe. Furthermore, the substance is undisclosed as it is proprietary.

UNDISCLOSEDID: **Undisclosed**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:08**%: **10.0000 - 20.0000** GS: **LT-P1** 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: Percent weight interval is used to protect exact recipe. Furthermore, the substance is undisclosed as it is proprietary.

4,4'-DIPHENYLMETHANE DIISOCYANATEID: **101-68-8**

%: **1.0000 - 5.0000**GS: **LT-UNK**RC: **None**NANO: **No**SUBSTANCE ROLE: **Curing agent**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MUL	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
RES	AOEC - Asthmagens	Asthmagen (G) - generally accepted
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
RES	US EPA - PPT Chemical Action Plans	Inhalation sensitizer causing asthma and lung damage
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H317 - May cause an allergic skin reaction [Skin sensitization - Category 1]
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
RES	EU - GHS (H-Statements) Annex 6 Table 3-1	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled [Respiratory sensitization - Category 1]
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

SUBSTANCE NOTES: Percent weight interval is used to protect exact recipe.

UNDISCLOSEDID: **Undisclosed**%: **1.0000 - 10.0000**GS: **NoGS**RC: **None**NANO: **No**SUBSTANCE ROLE: **Filler**

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

SUBSTANCE NOTES: Percent weight interval is used to protect exact recipe. Furthermore, the substance is undisclosed as it is proprietary.

STEEL REINFORCED POLYMER SPACER BAR (OPTION 3) %: **0.0000 - 3.2000**PRODUCT THRESHOLD: **1000 ppm**RESIDUALS AND IMPURITIES CONSIDERED:
YesMATERIAL TYPE: **Polymeric Material**

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities at or above the declaration threshold reported by the manufacturer.

OTHER MATERIAL NOTES: Percent weight interval is used as three (3) spacer bar options are available: Aluminum spacer bar, Stainless Steel spacer bar or Polymer spacer bar.

POLYPROPYLENEID: **9003-07-0**

%: 45.0000 - 50.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Polymer species

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Percent weight interval is used to preserve exact product recipe.

UNS S30100 STAINLESS STEEL ALLOY

ID: Not registered

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2021-12-07 9:37:04

%: 40.0000 - 45.0000

GS: NoGS

RC: None

NANO: No

SUBSTANCE ROLE: Sealant

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Percent weight interval is used to preserve exact product recipe.

STEEL

ID: 12597-69-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2021-12-07 9:37:09

%: 4.0000 - 10.0000

GS: NoGS

RC: None

NANO: No

SUBSTANCE ROLE: Structure component

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Percent weight interval is used to preserve exact product recipe.

UNDISCLOSED

ID: Undisclosed

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2021-11-25 7:52:01

%: 2.0000 - 5.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Polymer species

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Percent weight interval is used to preserve exact product recipe. Furthermore, this substance is undisclosed as it is proprietary.

POLYETHYLENE

ID: 9002-88-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2021-12-07 9:37:12

%: 1.0000 - 5.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Polymer species

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Percent weight interval is used to preserve exact product recipe.

CERAMIC FRIT COATING

%: 0.0000 - 1.5000

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities are present at or above the declaration threshold according to the manufacturers.

OTHER MATERIAL NOTES: Weight percentage interval is used to cover insulated glass units with and without coating. Furthermore, two coatings are available in various colors, either Ceramic Frit or Opaci-Coat 300®. Composition of Ceramic Frit coating is based on the final product composition as delivered. Not all color pigments are listed as they fall below the declaration threshold.

FRITS, CHEMICALS

ID: 65997-18-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:01**

%: **75.0000 - 90.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

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

SUBSTANCE NOTES: Weight percent interval is used to cover variability in product and keep exact recipe confidential.

TITANIUM DIOXIDE

ID: 13463-67-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:28**

%: **0.0000 - 20.0000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
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
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

SUBSTANCE NOTES: Percent weight interval is used to cover product variability, keep exact recipe confidential and account for different Ceramic Frit coating final color.

OPACI-COAT 300®

%: **0.0000 - 1.3000**

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities present at or above the declaratin threshold declared by the manufacturer.

HPD URL: <https://hpdrepository.hpd-collaborative.org/repository/HPDthumbnails/58F78E7D99CF1F99CCC7078549EF4E79.jpg>

OTHER MATERIAL NOTES: Weight percentage interval is used to cover insulated lass unit with and without coating. Furthermore, two coatings are available, either Ceramic Frit or Opaci-Coat 300®.

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:01**%: **75.0000 - 85.0000** GS: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Coating**

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

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Substance identified on the US EPA Safer Chemical Ingredient List. Crosslinked Polydimethylsiloxane. Water-based silicone coating that is fully cured to a tack-free silicone elastomeric film providing opacification in any color to glass and related construction materials.

SILICON DIOXIDE

ID: 7631-86-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:07**%: **10.0000 - 20.0000** GS: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Abrasion resistance**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	GHS - Japan	H350 - May cause cancer [Carcinogenicity - Category 1A]
CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Form-specific hazards not expected to apply when substance is bound in the matrix of the cured and dried product.

C.I. PIGMENT GREEN 50

ID: 68186-85-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:23**%: **0.0000 - 12.0000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RES	AOEC - Asthmagens	Asthmagen (G) - generally accepted
CAN	IARC	Group 1 - Agent is Carcinogenic to humans
CAN	CA EPA - Prop 65	Carcinogen
CAN	US NIH - Report on Carcinogens	Known to be a human Carcinogen
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
CAN	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
GEN	MAK	Germ Cell Mutagen 3a

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Form-specific hazards not expected to apply when substance is bound in the matrix of the cured and dried product. Substance not present in all colors.

NICKEL RUTILE YELLOW

ID: 8007-18-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:23**

#: 0.0000 - 12.0000

GS: LT-1

RC: None

NANO: No

SUBSTANCE ROLE: Pigment

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	IARC	Group 1 - Agent is Carcinogenic to humans
CAN	CA EPA - Prop 65	Carcinogen
CAN	US NIH - Report on Carcinogens	Known to be a human Carcinogen
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Form-specific hazards not expected to apply when substance is bound in the matrix of the cured and dried product. Substance not present in all colors.

FERRIC OXIDE

ID: 1309-37-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-12-07 9:37:22

#: 0.0000 - 12.0000

GS: BM-1

RC: None

NANO: No

SUBSTANCE ROLE: Pigment

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Form-specific hazards not expected to apply when substance is bound in the matrix of the cured and dried product. Substance not present in all colors.

CI 77346

ID: 1345-16-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-12-07 9:37:21

#: 0.0000 - 10.0000

GS: LT-1

RC: None

NANO: No

SUBSTANCE ROLE: Pigment

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RES	AOEC - Asthmagens	Asthmagen (G) - generally accepted
CAN	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
GEN	MAK	Germ Cell Mutagen 3a

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Form-specific hazards not expected to apply when substance is bound in the matrix of the cured and dried product. Substance not present in all colors.

FERRIC OXIDE, YELLOW

ID: 51274-00-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-12-07 9:37:21

#: 0.0000 - 10.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Pigment

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

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Substance not present in all colors.

CARBON BLACK

ID: 1333-86-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-11-25 7:52:44**%: **0.0000 - 6.0000** GS: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Form-specific hazards not expected to apply when substance is bound in the matrix of the cured and dried product. Substance not present in all colors.

C.I. 74265

ID: 14302-13-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-11-25 7:52:44**%: **0.0000 - 6.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Substance not present in all colors.

CINQUASIA RED

ID: 1047-16-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-11-25 7:52:45**%: **0.0000 - 6.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Substance not present in all colors.

PIGMENT BLUE 15

ID: 147-14-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-11-25 7:52:45**%: **0.0000 - 6.0000** GS: **BM-3** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Form-specific hazards not expected to apply when substance is bound in the matrix of the cured and dried product. Substance not present in all colors.

C.I. PIGMENT YELLOW 83

ID: 5567-15-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-11-25 7:52:46**%: **0.0000 - 6.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Form-specific hazards not expected to apply when substance is bound in the matrix of the cured and dried product. Substance not present in all colors.

ALUMINUM HYDROXIDE, DRIED

ID: 21645-51-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:32**%: **0.0000 - 2.0000** GS: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Filler**

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

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Form-specific hazards not expected to apply when substance bound in the matrix of the cured and dried product.

TITANIUM DIOXIDE

ID: 13463-67-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:33**%: **0.0000 - 12.0000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
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
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Form-specific hazards not expected to apply when substance is bound in the matrix of the cured and dried product. Substance not present in all colors.

C.I. PIGMENT YELLOW 227, NIOBIUM SULFUR TIN ZINC OXIDE

ID: 1374645-21-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:34**%: **0.0000 - 12.0000** GS: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Substance not present in all colors.

C.I. PIGMENT YELLOW 216, RUTILE, TIN ZINC

ID: 85536-73-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:34**

%: **0.0000 - 12.0000** GS: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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

SUBSTANCE NOTES: Percent weight percentage used to account for product variability and keep exact recipe confidential. Substance not present in all colors.

POLYVINYL BUTYRAL (PVB) INTERLAYER %: **0.0000 - 14.0000**

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

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities reported at or above the threshold by the manufacturer.

OTHER MATERIAL NOTES: Weight percent interval is used to cover Multiver's insulated glass unit with laminated glass with either PVB interlayer or Ionoplast interlayer. PVB interlayers are provided by multiple suppliers; hence, substance may or may not be present in the interlayer.

UNDISCLOSED

ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:37:07**

%: **15.0000 - 30.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Plasticizer**

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

SUBSTANCE NOTES: Weight percent interval used to cover multiple PVB interlayer composition from various suppliers. This substance is undisclosed as it is proprietary.

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: **2021-11-25 7:53:04**

#: **0.0000 - 80.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

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

SUBSTANCE NOTES: Weight percent interval used to cover multiple PVB interlayer composition from various suppliers.

CALCIUM CARBONATE

ID: 471-34-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-11-25 7:53:05**

#: **0.0000 - 5.0000** GS: **BM-3** RC: **None** NANO: **No** SUBSTANCE ROLE: **Filler**

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

SUBSTANCE NOTES: Weight percent interval used to cover multiple PVB interlayer composition from various suppliers.

ANATASE (TiO2)

ID: 1317-70-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-11-25 7:53:06**

#: **0.0000 - 2.0000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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

SUBSTANCE NOTES: Weight percent interval used to cover multiple PVB interlayer composition from various suppliers.

BIS(2-BUTOXYETHYL) ADIPATE

ID: 141-18-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-11-25 7:53:06**

#: **0.0000 - 5.0000** GS: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Plasticizer**

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

SUBSTANCE NOTES: Weight percent interval used to cover multiple PVB interlayer composition from various suppliers.

UNDISCLOSED

ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-11-25 7:53:07**

%: 0.0000 - 75.0000

GS: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Polymer species

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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None found		No warnings found on HPD Priority Hazard Lists
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SUBSTANCE NOTES: Weight percent interval used to cover multiple PVB interlayer composition from various suppliers. This substance is undisclosed as it is proprietary.

UNDISCLOSED

ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-11-25 7:53:07**

%: 0.0000 - 15.0000

GS: LT-1

RC: None

NANO: No

SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
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
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

SUBSTANCE NOTES: Weight percent interval used to cover multiple PVB interlayer composition from various suppliers. This substance is undisclosed as it is proprietary.

IONOPLAST INTERLAYER

%: 0.0000 - 12.6000

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

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities reported at or above the declaration threshold by the manufacturer.

OTHER MATERIAL NOTES: Weight percent interval is used to cover Multiver's insulated glas sunit with laminated glass with either PVB interlayer or Ionoplast interlayer.

ETHENE SODIUM POLYMER WITH METHACRYLIC ACID

ID: **25608-26-8**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-07 9:36:59**

%: 99.0000 - 100.0000

GS: LT-UNK

RC: PreC

NANO: No

SUBSTANCE ROLE: **Polymer species**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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None found		No warnings found on HPD Priority Hazard Lists
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SUBSTANCE NOTES: The material contains 25% Pre Consumer recycled content. Percent weight interval used to cover variability in composition.

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) - Not tested
CERTIFYING PARTY: Self-declared	ISSUE DATE: 2021-11-03
APPLICABLE FACILITIES: All.	EXPIRY DATE:
CERTIFICATE URL:	CERTIFIER OR LAB: n/a
CERTIFICATION AND COMPLIANCE NOTES:	

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

MANUFACTURER INFORMATION

MANUFACTURER: Multiver Ltée
ADDRESS: 436 Bérubé Street
 Québec Quebec G1M 1C8, Canada
WEBSITE: www.multiver.ca/en

CONTACT NAME: Luc Cormier
TITLE: Vice-President, Operations
PHONE: 1-800-463-2810
EMAIL: luccormier@multiver.ca

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)	NoGS No GreenScreen.
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)	

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.