

HPD UNIQUE IDENTIFIER: 31067

CLASSIFICATION: 08 91 26 Door Louvers

PRODUCT DESCRIPTION: Door louvers are constructed of cold rolled steel, stainless steel, aluminum or galvanized steel and have a powder coat finish, #4 stainless steel finish or mill finish aluminum. Door louvers provide air flow and ventilation through the door without sacrificing privacy and security. This HPD includes all door louvers manufactured by Activar Construction Products Group – Air Louvers. This HPD serves to disclose the chemical ingredients of our door louvers. For a HPD of a specific configuration not disclosed here, please contact Activar Construction Products Group - Air Louvers using the contact information listed at the end of this document.

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

<p><b>Inventory Reporting Format</b></p> <p><input checked="" type="radio"/> Nested Materials Method</p> <p><input type="radio"/> Basic Method</p> <p><b>Threshold Disclosed Per</b></p> <p><input type="radio"/> Material</p> <p><input checked="" type="radio"/> Product</p>	<p><b>Threshold Level</b></p> <p><input type="radio"/> 100 ppm</p> <p><input checked="" type="radio"/> 1,000 ppm</p> <p><input type="radio"/> Per GHS SDS</p> <p><input type="radio"/> Other</p>	<p><b>Residuals/Impurities Evaluation</b></p> <p>Completed in 10 of 10 Materials</p> <p><b>Explanation(s) provided for Residuals/Impurities?</b></p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>	<p><i>For all contents above the threshold, the manufacturer has:</i></p> <p><b>Characterized</b> <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>Provided weight and role.</i></p> <p><b>Screened</b> <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>Provided screening results using HPDC-approved methods.</i></p> <p><b>Identified</b> <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p><i>Provided name and CAS RN or other identifier.</i></p>
--	--	---	---

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

STAINLESS STEEL [ IRON LT-P1 | END NICKEL LT-1 | CAN | RES | MUL | MAM | SKI | AQU CHROMIUM LT-P1 | END | SKI | GEN | REP | MAM MANGANESE LT-P1 | END | MUL | REP | MAM | AQU SILICON LT-UNK MOLYBDENUM LT-UNK | SKI | REP COPPER LT-P1 | GEN | EYE | MAM | SKI | AQU COBALT LT-1 | CAN | REP | MUL | RES | GEN | EYE | MAM | SKI TUNGSTEN METAL LT-UNK | COLD ROLLED STEEL [ IRON LT-P1 | END MANGANESE LT-P1 | END | MUL | REP | MAM | AQU NICKEL LT-1 | CAN | RES | MUL | MAM | SKI | AQU CHROMIUM LT-P1 | END | SKI | GEN | REP | MAM CARBON LT-UNK MOLYBDENUM LT-UNK | SKI | REP COPPER LT-P1 | GEN | EYE | MAM | SKI | AQU STEEL GALVANNEAL [ IRON LT-P1 | END 3003-H14 ALUMINUM BM-1 | END | MAM | PHY NICKEL LT-1 | CAN | RES | MUL | MAM | SKI | AQU CARBON LT-UNK MOLYBDENUM LT-UNK | SKI | REP MANGANESE LT-P1 | END | MUL | REP | MAM | AQU TIN LT-P1 | EYE | MAM | AQU CHROMIUM LT-P1 | END | SKI | GEN | REP | MAM COPPER LT-P1 | GEN | EYE | MAM | SKI | AQU SILICON LT-UNK | ALUMINUM [ 3003-H14 ALUMINUM BM-1 | END | MAM | PHY ] GALVANIZED STEEL WOVEN MESH (SCREEN) [ IRON LT-P1 | END MANGANESE LT-P1 | END | MUL | REP | MAM | AQU CARBON LT-UNK CHROMIUM LT-P1 | END | SKI | GEN | REP | MAM ] BRASS ALLOY MESH (SCREEN) [ COPPER LT-P1 | GEN | EYE | MAM | SKI | AQU ZINC LT-P1 | END | MUL | PHY | AQU LEAD BM-1 | END | PBT | REP | MUL | CAN | DEV | GEN | MAM | AQU IRON LT-P1 | END ] STAINLESS STEEL ALLOY MESH (SCREEN) [ CHROMIUM LT-P1 | END | SKI | GEN | REP | MAM NICKEL LT-1 | CAN | RES | MUL | MAM | SKI | AQU MANGANESE LT-P1 | END | MUL | REP | MAM | AQU SILICON LT-UNK CARBON LT-UNK ] ALUMINUM ALLOY MESH (SCREEN) [ 3003-H14 ALUMINUM BM-1 | END | MAM | PHY NICKEL LT-1 | CAN | RES | MUL | MAM | SKI | AQU

Number of Greenscreen BM-4/BM3 contents ... 0

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This HPD is prepared using the Nested Materials Inventory with product threshold at 1,000 ppm. Activar Construction Products Group - Air Louvers door louvers are manufactured in steel, aluminum, stainless steel or galvanized steel.

MANGANESE LT-P1 | END | MUL | REP | MAM | AQU COPPER LT-P1 |  
GEN | EYE | MAM | SKI | AQU ] POWDER COAT [ UNDISCLOSED NoGS  
UNDISCLOSED LT-UNK UNDISCLOSED LT-1 | MUL | RES | GEN | MAM  
| EYE | SKI | AQU | REP UNDISCLOSED LT-1 | CAN | END | MAM  
UNDISCLOSED LT-UNK UNDISCLOSED BM-1 | CAN | MAM | EYE | SKI  
UNDISCLOSED BM-1 | CAN | EYE | MAM UNDISCLOSED LT-P1 ]  
FUSIBLE LINK AND SPRING [ COPPER LT-P1 | GEN | EYE | MAM | SKI  
| AQU STEEL MANUFACTURE, CHEMICALS LT-UNK SELENIUM LT-  
P1 | CAN | PBT | MUL | MAM | AQU NICKEL LT-1 | CAN | RES | MUL |  
MAM | SKI | AQU TIN LT-P1 | EYE | MAM | AQU BISMUTH LT-UNK |  
MAM ]

**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: VOC content data is not applicable for this product category.

**CONSISTENCY WITH OTHER PROGRAMS**

No pre-checks completed or disclosed.

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2023-01-17

PUBLISHED DATE: 2023-01-17

EXPIRY DATE: 2026-01-17

## 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](http://www.hpd-collaborative.org/hpd-2-3-standard)

### STAINLESS STEEL

#: 98.0000 - 100.0000

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: Other trace elements (less than 0.1%) may also be present per the manufacturer. These trace elements generally originate in the raw material used.

OTHER MATERIAL NOTES: The ingredients listed are the elements used in alloying stainless steel. Stainless steel contains chromium metal in the zero valence state. As such per the manufacturer, chromium metal does not present any unusual health risk. All vision lites manufactured by Activar Construction Product Group - Air Louvers are #4 stainless steel finish.

### IRON

ID: 7439-89-6

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2023-01-17 10:10:09

#: 45.0000 - 90.0000

GreenScreen: LT-P1

RC: UNK

NANO: No

SUBSTANCE ROLE: Structure component

HAZARD TYPE

LIST NAME AND SOURCE

WARNINGS

END

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

ADDITIONAL LISTINGS

LIST NAME AND SOURCE

NOTIFICATION

None found

No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Main ingredient in stainless steel.

### NICKEL

ID: 7440-02-0

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2023-01-17 10:10:10

#: 0.0000 - 40.0000

GreenScreen: LT-1

RC: UNK

NANO: No

SUBSTANCE ROLE: Alloy element

HAZARD TYPE	LIST NAME AND SOURCE	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
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
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]
CAN	GHS - New Zealand	Carcinogenicity category 2
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen
SKI	GHS - New Zealand	Skin sensitisation category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
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 of Problematic Chemicals  Certain Metals
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Footwear, Apparel & Jewelry Products
SUBSTANCE NOTES: Nickel enhances formability and weldability of steel.		

## CHROMIUM

ID: 7440-47-3

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-01-17 10:10:10		
%: 10.0000 - 30.0000	GreenScreen: LT-P1	RC: UNK	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor		
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization		
GEN	GHS - Japan	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]		
REP	GHS - New Zealand	Reproductive toxicity category 2		
MAM	GHS - Japan	H371 - May cause damage to organs [Specific target organs/systemic toxicity following single exposure - Category 2]		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials		
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products		
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Cosmetics & Personal Care Products		
SUBSTANCE NOTES: Used as an alloy when manufacturing steel.				

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:11**%: **0.0000 - 15.0000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	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]
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products
SUBSTANCE NOTES: Decreases brittleness and increases hardness.		

## SILICON

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:12**%: **0.0000 - 9.5000** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Antioxidant**

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: Principal deoxidizer making steel more sound and defect free.		

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:09**%: **0.0000 - 7.0000** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Corrosion inhibitor**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]
REP	GHS - New Zealand	Reproductive toxicity category 2
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Used to inhibit corrosion.

## COPPER

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:11**%: **0.0000 - 5.0000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Corrosion inhibitor**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
GEN	GHS - New Zealand	Germ cell mutagenicity category 1
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
SKI	GHS - New Zealand	Skin sensitisation category 1
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
MAM	GHS - New Zealand	Acute oral toxicity category 2
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 2

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List  Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals  Antimicrobials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Enhances the corrosion resistance of steel.

## COBALT

ID: 7440-48-4

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:10**

%: **0.0000 - 5.0000** GreenScreen: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	EU - REACH Annex XVII CMRs	Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man
CAN	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
REP	EU - Annex VI CMRs	Reproductive Toxicity - Category 1B
MUL	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
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
CAN	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
CAN	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
REP	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 2 - Substances which should be regarded as if they impair fertility or cause Developmental Toxicity in humans
GEN	MAK	Germ Cell Mutagen 3a



CAN	GHS - Australia	H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]
REP	GHS - Australia	H360F - May damage fertility [Reproductive toxicity - Category 1A or 1B]
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H350 - May cause cancer [Carcinogenicity - Category 1A or 1B]
GEN	EU - GHS (H-Statements) Annex 6 Table 3-1	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
REP	EU - GHS (H-Statements) Annex 6 Table 3-1	H360F - May damage fertility [Reproductive toxicity - Category 1A or 1B]
EYE	GHS - New Zealand	Eye irritation category 2
CAN	GHS - New Zealand	Carcinogenicity category 2
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 - New Zealand	Specific target organ toxicity - repeated exposure category 1
SKI	GHS - New Zealand	Skin sensitisation category 1
REP	GHS - New Zealand	Reproductive toxicity category 2
GEN	EU - Annex VI CMRs	Mutagen - Category 2
MAM	GHS - Australia	H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Used to harden steel.

## TUNGSTEN METAL

ID: 7440-33-7

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:11**

%: **0.0000 - 4.0000** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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: Increases wear resistance in steel.

**COLD ROLLED STEEL** %: 1.0000 - 100.0000

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: No MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities not considered. Only intentionally added ingredients are detailed in this HPD.

OTHER MATERIAL NOTES: Cold rolled steel is the standard material used to manufacture louvers. Louvers are also available in galvanized steel and stainless steel.

**IRON** ID: 7439-89-6

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2023-01-17 10:10:12

%: 96.0000 - 99.0000 GreenScreen: LT-P1 RC: UNK NANO: No SUBSTANCE ROLE: Structure component

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
-------------	----------------------	----------

END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
-----	---------------------------------------	-------------------------------

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
---------------------	----------------------	--------------

None found No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Main base metal used to create steel.

**MANGANESE** ID: 7439-96-5

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2023-01-17 10:10:12

%: 0.0000 - 2.0000 GreenScreen: LT-P1 RC: UNK NANO: No SUBSTANCE ROLE: Alloy element

HAZARD TYPE	LIST NAME AND SOURCE	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]
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Alloy included in cold rolled steel.

**NICKEL**

ID: 7440-02-0

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:14**

%: **0.0000 - 1.0000**     
 GreenScreen: **LT-1**     
 RC: **UNK**     
 NANO: **No**     
 SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	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
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
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]
CAN	GHS - New Zealand	Carcinogenicity category 2
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen
SKI	GHS - New Zealand	Skin sensitisation category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
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 of Problematic Chemicals  Certain Metals
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPI)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPI)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPI)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Footwear, Apparel & Jewelry Products
SUBSTANCE NOTES: Alloy used the manufacture of cold rolled steel.		

## CHROMIUM

ID: 7440-47-3

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-01-17 10:10:13		
#: 0.0000 - 1.0000	GreenScreen: LT-P1	RC: UNK	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor		
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization		
GEN	GHS - Japan	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]		
REP	GHS - New Zealand	Reproductive toxicity category 2		
MAM	GHS - Japan	H371 - May cause damage to organs [Specific target organs/systemic toxicity following single exposure - Category 2]		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPI)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials		
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPI)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products		
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPI)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Cosmetics & Personal Care Products		
SUBSTANCE NOTES: Alloy used in the manufacture of cold rolled steel.				

**CARBON**

ID: 7440-44-0

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:15**%: **0.0000 - 0.6000** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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 of Problematic Chemicals Antimicrobials

SUBSTANCE NOTES: Alloy used in the manufacture of cold rolled steel.

**MOLYBDENUM**

ID: 7439-98-7

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:16**%: **0.0000 - 0.6000** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Corrosion inhibitor**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]
REP	GHS - New Zealand	Reproductive toxicity category 2
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Increases corrosion resistance in steel.

**COPPER**

ID: 7440-50-8

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:13**%: **0.0000 - 0.6000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Corrosion inhibitor**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
GEN	GHS - New Zealand	Germ cell mutagenicity category 1
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
SKI	GHS - New Zealand	Skin sensitisation category 1
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
MAM	GHS - New Zealand	Acute oral toxicity category 2
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 2

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List  Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals  Antimicrobials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Increases the corrosion resistance in steel.

## STEEL GALVANNEAL

#: 1.0000 - 100.0000

PRODUCT THRESHOLD: 1000 ppm      RESIDUALS AND IMPURITIES EVALUATION COMPLETED: No      MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities not considered. Only intentionally added ingredients are detailed in this HPD.

OTHER MATERIAL NOTES: Galvanneal steel is more corrosion resistant option and is an alternative to standard steel. All steel louvers are then powder coated.

## IRON

ID: 7439-89-6

HAZARD DATA SOURCE: Pharos Chemical and Materials Library      HAZARD SCREENING DATE: 2023-01-17 10:10:14

#: 90.0000 - 99.0000      GreenScreen: LT-P1      RC: PostC      NANO: No      SUBSTANCE ROLE: Structure component

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists
SUBSTANCE NOTES: Main ingredient in galvalume steel.		

### 3003-H14 ALUMINUM

ID: 7429-90-5

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-01-17 10:10:15		
%: 0.1000 - 10.5000	GreenScreen: BM-1	RC: UNK	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor		
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]		
PHY	GHS - New Zealand	Flammable solids category 1		
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]		
PHY	GHS - Japan	H261 - In contact with water releases flammable gas [Substances and mixtures, which in contact with water, emit flammable gases - Category 2]		
PHY	GHS - Malaysia	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]		
PHY	GHS - Australia	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]		
PHY	GHS - New Zealand	Pyrophoric solids category 1		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022		
		Children's Products		
SUBSTANCE NOTES: Alloy used in the manufacture of galvalume steel.				

### NICKEL

ID: 7440-02-0

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2023-01-17 10:10:16		
---	--	--	--	--



HAZARD TYPE	LIST NAME AND SOURCE	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
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
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]
CAN	GHS - New Zealand	Carcinogenicity category 2
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen
SKI	GHS - New Zealand	Skin sensitisation category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
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 of Problematic Chemicals  Certain Metals
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 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 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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Footwear, Apparel & Jewelry Products

SUBSTANCE NOTES: Alloy used in the manufacture of galvanized steel.

## CARBON

ID: 7440-44-0

HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2023-01-17 10:10:17</b>		
%: <b>0.1000 - 5.5000</b>	GreenScreen: <b>LT-UNK</b>	RC: <b>UNK</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Tensile strength additive</b>
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
ADDITIONAL LISTINGS		NOTIFICATION		
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals  Antimicrobials		

SUBSTANCE NOTES: Alloy used to increase hardness in steel.

## MOLYBDENUM

ID: 7439-98-7

HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2023-01-17 10:10:13</b>		
%: <b>0.1000 - 5.0000</b>	GreenScreen: <b>LT-UNK</b>	RC: <b>UNK</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Corrosion inhibitor</b>
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]		
REP	GHS - New Zealand	Reproductive toxicity category 2		

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

SUBSTANCE NOTES: Increases corrosion resistance in steel.

## MANGANESE

ID: 7439-96-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:14**

%: **0.1000 - 4.5000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	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]
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Critical ingredient used to manufacture galvanized steel.

## TIN

ID: 7440-31-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:15**

%: **0.1000 - 3.5000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
EYE	GHS - New Zealand	Eye irritation 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]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Alloy that provides increased corrosion resistance.

## CHROMIUM

ID: 7440-47-3

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:16**

%: **0.1000 - 3.0000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
GEN	GHS - Japan	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
REP	GHS - New Zealand	Reproductive toxicity category 2
MAM	GHS - Japan	H371 - May cause damage to organs [Specific target organs/systemic toxicity following single exposure - Category 2]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Cosmetics & Personal Care Products

SUBSTANCE NOTES: Alloy used in manufacturer of galvanized steel.

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:17**%: **0.1000 - 3.0000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Corrosion inhibitor**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
GEN	GHS - New Zealand	Germ cell mutagenicity category 1
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
SKI	GHS - New Zealand	Skin sensitisation category 1
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
MAM	GHS - New Zealand	Acute oral toxicity category 2
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 2
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List  Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals  Antimicrobials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPI)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPI)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Alloy used to increase corrosion resistance of galvaneal steel.

## SILICON

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:15**%: **0.1000 - 2.0000** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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: Ingredient used in manufacture of galvaneal steel.

**ALUMINUM**

%: 98.0000 - 100.0000

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: Information not provided by the supplier.

OTHER MATERIAL NOTES: Mill finished aluminum is used in the 1300 all-aluminum louver and the 1400 storm proof aluminum Z-blade louver.

**3003-H14 ALUMINUM**

ID: 7429-90-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:16**

%: **90.0000 - 99.0000** GreenScreen: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
PHY	GHS - New Zealand	Flammable solids category 1
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
PHY	GHS - Japan	H261 - In contact with water releases flammable gas [Substances and mixtures, which in contact with water, emit flammable gases - Category 2]
PHY	GHS - Malaysia	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]
PHY	GHS - Australia	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]
PHY	GHS - New Zealand	Pyrophoric solids category 1
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Main ingredient.

**GALVANIZED STEEL WOVEN MESH (SCREEN)**

%: 2.0000 - 2.5000

RESIDUALS AND IMPURITIES NOTES: Information not provided by the supplier.

OTHER MATERIAL NOTES: Galvanized steel woven mesh screen used to prevent insects or birds from getting through a louver on an exterior door.

**IRON**

ID: 7439-89-6

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:17**

%: **95.0000 - 97.0000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: Ingredient used in the manufacturer of galvanized steel mesh screen.

**MANGANESE**

ID: 7439-96-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:19**

%: **0.5000 - 1.3000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	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]
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Ingredient used to manufacture galvanized steel mesh screen.

## CARBON

ID: 7440-44-0

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:19**

%: **0.1000 - 0.8700** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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 of Problematic Chemicals  Antimicrobials

SUBSTANCE NOTES: Alloy used to increase hardness.

## CHROMIUM

ID: 7440-47-3

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:17**

%: **0.0000 - 0.1500** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
GEN	GHS - Japan	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
REP	GHS - New Zealand	Reproductive toxicity category 2
MAM	GHS - Japan	H371 - May cause damage to organs [Specific target organs/systemic toxicity following single exposure - Category 2]



ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP11)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP11)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP11)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Cosmetics & Personal Care Products

SUBSTANCE NOTES: Alloy used to manufacture steel.

#### BRASS ALLOY MESH (SCREEN)

#: 2.0000 - 2.5000

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: Information not provided by the supplier.

OTHER MATERIAL NOTES: Brass mesh screen is made from copper alloys.

#### COPPER

ID: 7440-50-8

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2023-01-17 10:10:18

#: 89.0000 - 92.0000

GreenScreen: LT-P1

RC: UNK

NANO: No

SUBSTANCE ROLE: Corrosion inhibitor

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
GEN	GHS - New Zealand	Germ cell mutagenicity category 1
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
SKI	GHS - New Zealand	Skin sensitisation category 1
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
MAM	GHS - New Zealand	Acute oral toxicity category 2
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 2

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List  Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals  Antimicrobials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Increases corrosion resistance in steel.

**ZINC**

ID: 7440-66-6

HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2023-01-17 10:10:19</b>			
%: <b>1.0000 - 2.0000</b>	GreenScreen: <b>LT-P1</b>	RC: <b>UNK</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Corrosion inhibitor</b>

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H260 - In contact with water releases flammable gases which may ignite spontaneously [Substances and mixtures which, in contact with water, emit flammable gases - Category 1]
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]
PHY	GHS - Australia	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]
PHY	GHS - New Zealand	Pyrophoric solids category 1
PHY	GHS - New Zealand	Self-heating substances and mixtures category 1
PHY	GHS - New Zealand	Substances and mixtures which, in contact with water, emit flammable gases category 1
PHY	GHS - Australia	H260 - In contact with water releases flammable gases which may ignite spontaneously [Substances and mixtures which, in contact with water, emit flammable gases - Category 1]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - Japan	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]
AQU	GHS - Japan	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
AQU	GHS - Australia	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals  Antimicrobials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Provides enhanced corrosion resistance.

**LEAD**

ID: 7439-92-1

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:20**

%: **0.0000 - 0.0500** GreenScreen: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
REP	EU - SVHC Authorisation List	Toxic to reproduction - Candidate list
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
MUL	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
CAN	CA EPA - Prop 65	Carcinogen
CAN	IARC	Group 2b - Possibly carcinogenic to humans
CAN	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
CAN	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
DEV	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
CAN	US EPA - IRIS Carcinogens	(1986) Group B2 - Probable human Carcinogen
CAN	IARC	Group 2a - Agent is probably Carcinogenic to humans
DEV	CA EPA - Prop 65	Developmental toxicity
PBT	US EPA - Priority PBTs (NWMP)	Priority PBT
PBT	WA DoE - PBT	PBT
PBT	US EPA - Toxics Release Inventory PBTs	PBT
DEV	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Developmental Toxicity
REP	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Reproductive Toxicity

REP	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 1 - Substances known to impair fertility or cause Developmental Toxicity in humans
REP	EU - Annex VI CMRs	Reproductive Toxicity - Category 1A
GEN	MAK	Germ Cell Mutagen 3a
REP	CA EPA - Prop 65	Reproductive Toxicity - Female
REP	CA EPA - Prop 65	Reproductive Toxicity - Male
CAN	GHS - Korea	H350 - May cause cancer [Carcinogenicity - Category 1]
REP	GHS - Korea	H360 - May damage fertility or the unborn child [Reproductive toxicity - Category 1]
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1A]
DEV	GHS - Australia	H360Df - May damage the unborn child. Suspected of damaging fertility [Reproductive toxicity - Category 1A or 1B]
REP	EU - GHS (H-Statements) Annex 6 Table 3-1	H360FD - May damage fertility. May damage the unborn child [Reproductive toxicity - Category 1A or 1B]
DEV	EU - GHS (H-Statements) Annex 6 Table 3-1	H362 - May cause harm to breast-fed children [Reproductive toxicity, effects on or via lactation]
REP	GHS - New Zealand	Reproductive toxicity category 1
CAN	GHS - New Zealand	Carcinogenicity category 2
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]
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
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
AQU	GHS - Korea	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]
AQU	GHS - Korea	H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]
GEN	GHS - New Zealand	Germ cell mutagenicity category 2
MAM	GHS - New Zealand	Acute oral toxicity category 3
REP	GHS - New Zealand	Effects on or via lactation

CAN	GHS - Australia	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List  Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals  Certain Metals
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Core Restrictions
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Footwear, Apparel & Jewelry Products
RESTRICTED LIST	International Living Future Institute (ILFI)	Living Building Challenge 4.0 - Red List of Materials & Chemicals  Red List substances to avoid in Living Building Challenge V4.0 projects

SUBSTANCE NOTES: Ingredient used in the manufacturer of brass alloy mesh screen.

## IRON

ID: 7439-89-6

HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2023-01-17 10:10:22</b>		
#: <b>0.0000 - 0.0500</b>	GreenScreen: <b>LT-P1</b>	RC: <b>UNK</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Structure component</b>
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
None found		No listings found on Additional Hazard Lists		

SUBSTANCE NOTES: Ingredient used in the manufacturer of brass alloy mesh screen.

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: Information not provided by supplier.

OTHER MATERIAL NOTES: Stainless steel alloy woven mesh used for insect or bird screen.

**CHROMIUM**

ID: 7440-47-3

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:18**

%: **17.0000 - 19.0000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Tensile strength additive**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
GEN	GHS - Japan	H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]
REP	GHS - New Zealand	Reproductive toxicity category 2
MAM	GHS - Japan	H371 - May cause damage to organs [Specific target organs/systemic toxicity following single exposure - Category 2]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Cosmetics & Personal Care Products

SUBSTANCE NOTES: Ingredient used in the manufacture of stainless steel mesh screen to harden the stainless steel and prevent corrosion.

**NICKEL**

ID: 7440-02-0

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:19**

%: **8.0000 - 10.0000** GreenScreen: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	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
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
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]
CAN	GHS - New Zealand	Carcinogenicity category 2
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen
SKI	GHS - New Zealand	Skin sensitisation category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
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 of Problematic Chemicals Certain Metals
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Footwear, Apparel & Jewelry Products

SUBSTANCE NOTES: Improves formability and weldability.

## MANGANESE

ID: 7439-96-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:20**

%: **1.0000 - 2.0000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	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]
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Added to stainless steel to improve hot working properties.

### SILICON

ID: 7440-21-3

HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2023-01-17 10:10:22</b>		
%: <b>0.0000 - 0.7500</b>	GreenScreen: <b>LT-UNK</b>	RC: <b>UNK</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Alloy element</b>
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: Improves oxidation resistance.

### CARBON

ID: 7440-44-0

HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2023-01-17 10:10:23</b>		
%: <b>0.0000 - 0.1500</b>	GreenScreen: <b>LT-UNK</b>	RC: <b>UNK</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Alloy element</b>
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 of Problematic Chemicals  Antimicrobials		

SUBSTANCE NOTES: Alloy used in stainless steel to increase hardness.

### ALUMINUM ALLOY MESH (SCREEN)

%: 1.0000 - 2.0000

RESIDUALS AND IMPURITIES NOTES: Information not provided by the supplier.

OTHER MATERIAL NOTES: One of the choices for screen material is an aluminum mesh screen.

**3003-H14 ALUMINUM**

ID: 7429-90-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:19**

#: **98.0000 - 99.0000** GreenScreen: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
PHY	GHS - New Zealand	Flammable solids category 1
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
PHY	GHS - Japan	H261 - In contact with water releases flammable gas [Substances and mixtures, which in contact with water, emit flammable gases - Category 2]
PHY	GHS - Malaysia	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]
PHY	GHS - Australia	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]
PHY	GHS - New Zealand	Pyrophoric solids category 1
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Main metal for aluminum mesh screen.

**NICKEL**

ID: 7440-02-0

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:20**

#: **0.0000 - 0.0600** GreenScreen: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	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
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
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]
CAN	GHS - New Zealand	Carcinogenicity category 2
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen
SKI	GHS - New Zealand	Skin sensitisation category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
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 of Problematic Chemicals  Certain Metals
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 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 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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Footwear, Apparel & Jewelry Products

SUBSTANCE NOTES: Nickel added to aluminum imparts strength.

## MANGANESE

ID: 7439-96-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:23**

%: **0.0000 - 0.0500** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Tensile strength additive**

HAZARD TYPE	LIST NAME AND SOURCE	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]
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Increases strength in aluminum alloy.

## COPPER

ID: 7440-50-8

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:22**

%: **0.0000 - 0.0500** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Tensile strength additive**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
GEN	GHS - New Zealand	Germ cell mutagenicity category 1
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
SKI	GHS - New Zealand	Skin sensitisation category 1
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
MAM	GHS - New Zealand	Acute oral toxicity category 2
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 2

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List  Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals  Antimicrobials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Alloy that imparts strength and hardening to the aluminum.

**POWDER COAT**

%: 0.0000 - 1.4000

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

RESIDUALS AND IMPURITIES NOTES: Information not provided by the supplier.

OTHER MATERIAL NOTES: Mixture of polyester resins and pigments for coating louvers. This is a dry powder electrostatically applied and then cured in the oven.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:24**

%: **50.0000 - 59.0000** GreenScreen: **NoGS** RC: **UNK** NANO: **No** 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: The manufacturer does not publicly disclose the ingredients because its considered proprietary.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:18**

%: **0.0000 - 21.0000** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Powder coating**

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: The manufacturer does not publicly disclose the ingredients because its considered proprietary.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:19**

%: **0.0000 - 5.5000** GreenScreen: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Powder coating**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MUL	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant

MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
GEN	EU - REACH Annex XVII CMRs	Mutagen Category 2 - Substances which should be regarded as if they are Mutagenic to man
GEN	EU - Annex VI CMRs	Mutagen - Category 1B
GEN	EU - SVHC Authorisation List	Mutagenic - Candidate list
GEN	GHS - Japan	H340 - May cause genetic defects [Germ cell mutagenicity - Category 1B]
GEN	GHS - Korea	H340 - May cause genetic defects [Germ cell mutagenicity - Category 1]
GEN	EU - GHS (H-Statements) Annex 6 Table 3-1	H340 - May cause genetic defects [Germ cell mutagenicity - Category 1A or 1B]
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]
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]
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]
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
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
REP	GHS - Japan	H361 - Suspected of damaging fertility or the unborn child [Toxic to reproduction - Category 2]
MAM	GHS - Korea	H301 - Toxic if swallowed [Acute toxicity (oral) - Category 3]
MAM	GHS - New Zealand	Acute oral toxicity category 3
EYE	GHS - Japan	H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2A]
MAM	GHS - Japan	H301 - Toxic if swallowed [Acute Toxicity (oral) - Category 3]



MAM	GHS - Korea	H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]
MAM	GHS - Japan	H331 - Toxic if inhaled [Acute toxicity (inhalation: dust, mist) - Category 3]
EYE	GHS - Korea	H318 - Causes serious eye damage [Serious eye damage/irritation - Category 1]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The manufacturer does not publicly disclose the ingredients because its considered proprietary.

## UNDISCLOSED

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:20**

%: **0.0000 - 2.6000** GreenScreen: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	LIST NAME AND SOURCE	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]
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]
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Cosmetics & Personal Care Products
POSITIVE LIST	US Environmental Protection Agency (US EPA)	US EPA - DfE Safer Chemicals Ingredients list (SCIL)  Colorants - Green Circle (Verified Low Concern)

SUBSTANCE NOTES: The manufacturer does not publicly disclose the ingredients because its considered proprietary.

**UNDISCLOSED**ID: **Undisclosed**HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:22**%: **0.0000 - 2.3000** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Powder coating**

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: The manufacturer does not publicly disclose the ingredients because its considered proprietary.

**UNDISCLOSED**ID: **Undisclosed**HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:23**%: **0.0000 - 1.3000** GreenScreen: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
EYE	GHS - Japan	H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]

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

SUBSTANCE NOTES: The manufacturer does not publicly disclose the ingredients because its considered proprietary.

**UNDISCLOSED**ID: **Undisclosed**HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:21**%: **0.0000 - 0.7200** GreenScreen: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	LIST NAME AND SOURCE	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
EYE	GHS - New Zealand	Eye irritation category 2
CAN	GHS - New Zealand	Carcinogenicity category 2
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]

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

SUBSTANCE NOTES: The manufacturer does not publicly disclose the ingredients because its considered proprietary.

**UNDISCLOSED**

ID: **Undisclosed**

HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2023-01-17 10:10:22</b>			
%: <b>0.0000 - 0.6400</b>	GreenScreen: <b>LT-P1</b>	RC: <b>UNK</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Powder coating</b>

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: The manufacturer does not publicly disclose the ingredients because its considered proprietary.

**FUSIBLE LINK AND SPRING**

%: **0.5000 - 1.0000**

PRODUCT THRESHOLD: <b>1000 ppm</b>	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: <b>Yes</b>	MATERIAL TYPE: <b>Metal</b>
------------------------------------	---	-----------------------------

RESIDUALS AND IMPURITIES NOTES: Information is not provided by the supplier.

OTHER MATERIAL NOTES: The fusible link is part of the 1900A fire rated louver and allows the operable blades to close once the link has melted (165F). 1900A is the only louver that has this feature.

**COPPER**

ID: **7440-50-8**

HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2023-01-17 10:10:23</b>
--	---

#: 1.0000 - 2.0000

GreenScreen: **LT-P1**

RC: **UNK**

NANO: **No**

SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
GEN	GHS - New Zealand	Germ cell mutagenicity category 1
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
SKI	GHS - New Zealand	Skin sensitisation category 1
MAM	GHS - New Zealand	Acute inhalation toxicity category 2
MAM	GHS - New Zealand	Acute oral toxicity category 2
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 2

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List  Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals  Antimicrobials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products

SUBSTANCE NOTES: Used in creating bismuth alloy to soften the steel and allow the fusible link to melt at 165 degrees F.

**STEEL MANUFACTURE, CHEMICALS**

ID: **65997-19-5**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:24**

#: **0.5000 - 1.0000**

GreenScreen: **LT-UNK**

RC: **UNK**

NANO: **No**

SUBSTANCE ROLE: **Alloy element**

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: One of the ingredients in the fusible link for the 1900A louver.

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:25**%: **0.0000 - 1.0000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
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	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	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
MAM	GHS - Korea	H301 - Toxic if swallowed [Acute toxicity (oral) - Category 3]
AQU	GHS - Korea	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
MAM	GHS - Australia	H301 - Toxic if swallowed [Acute toxicity (oral) - Category 3]
MAM	GHS - Australia	H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]
MAM	GHS - Korea	H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CP II)	C2C Certified v4 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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Cosmetics & Personal Care Products

SUBSTANCE NOTES: Used in bismuth alloy.

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:22**%: **0.0000 - 1.0000**GreenScreen: **LT-1**RC: **UNK**NANO: **No**SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	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
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
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]
CAN	GHS - New Zealand	Carcinogenicity category 2
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 - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [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]
CAN	EU - Annex VI CMRs	Carcinogen Category 2 - Suspected human Carcinogen
SKI	GHS - New Zealand	Skin sensitisation category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
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 of Problematic Chemicals  Certain Metals
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 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 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 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Footwear, Apparel & Jewelry Products

SUBSTANCE NOTES: Used in bismuth alloy.

## TIN

ID: 7440-31-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:23**

#: **0.0000 - 0.5000** GreenScreen: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
EYE	GHS - New Zealand	Eye irritation 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]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1

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

SUBSTANCE NOTES: Used in making bismuth alloy which softens the steel allowing it to melt at 165 degrees F.

## BISMUTH

ID: 7440-69-9

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-01-17 10:10:24**

#: **0.0000 - 0.5000** GreenScreen: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
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	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: Used in softening steel so it will melt at 165 degrees.



## 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

VOC content data is not applicable for this product category.

CERTIFYING PARTY: Self-declared

ISSUE DATE: 2021-07-08

CERTIFIER OR LAB: None

APPLICABLE FACILITIES: None

EXPIRY DATE: 2024-08-08

CERTIFICATE URL:

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.*

### SCREWS

MANUFACTURER (OR GENERIC): Generic

HPD URL: No HPD available

ACCESSORY TYPE: Fastner

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Depending on the louver model the appropriate screws will be included. For steel louvers, steel screws with powder coat paint are sent. For stainless steel louvers, stainless steel screws are included. Steel screws are powder coat painted to match the product..

## Section 5: General Notes

This HPD covers all steel, galvanized, aluminum and stainless steel door louvers manufactured by Activar Construction Products Group - Air Louvers. Final assembly locations include: Minneapolis, MN and Commerce, CA. This product can be used to meet LEED v4 points for MR Credit: Building Product Disclosure and Optimization - Material Ingredients - Option 1. All ingredients have been screened against the Living Building Challenge Red List and is found to be Red List Free. Note: The undisclosed ingredients of the powder coat paint have also been screened and are confirmed Red List Free. Please contact us for more information if you are looking to meet LEED or LBC.

**MANUFACTURER INFORMATION**

**MANUFACTURER:** Activar Construction Products Group  
**ADDRESS:** 9702 Newton Ave. S  
 Bloomington Minnesota 55431, United States  
**WEBSITE:** [www.activarcpg.com/](http://www.activarcpg.com/)

**CONTACT NAME:** Lisa K Hyatt  
**TITLE:** Communications Specialist  
**PHONE:** (952) 837-1276  
**EMAIL:** [lkhyatt@activarcpg.com](mailto:lkhyatt@activarcpg.com)

*The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.*

**KEY**

**Hazard Types**

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

**GreenScreen (GS)**

<b>BM-4</b> Benchmark 4 (prefer-safer chemical)	<b>LT-P1</b> List Translator Possible 1 (Possible Benchmark-1)
<b>BM-3</b> Benchmark 3 (use but still opportunity for improvement)	<b>LT-1</b> List Translator 1 (Likely Benchmark-1)
<b>BM-2</b> Benchmark 2 (use but search for safer substitutes)	<b>LT-UNK</b> List Translator Benchmark Unknown
<b>BM-1</b> Benchmark 1 (avoid - chemical of high concern)	<b>NoGS</b> No GreenScreen.
<b>BM-U</b> 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](http://www.greenscreenchemicals.org), and Best Practices for Hazard Screening on the HPDC website ([hpd-collaborative.org](http://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 for compliance with the HPD standard noted.*