HPD UNIQUE IDENTIFIER: 28132
CLASSIFICATION: 08 44 00 Curtain Wall and Glazed Assemblies
PRODUCT DESCRIPTION: Forster fuego light is the reliable profile system for fire protection. The flush doors are constructed around a narrow steel frame with a large glass area that guarantees maximum transparency, a sleek appearance and reliable security. In addition to fire doors and glazed fire screens other available systems are tested like fire protection sliding doors, with and without escape route function, doors with finger guard and flush reverse sheet metal frame doors.

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format
- (•) Nested Materials Method
- ( ) Basic Method

Threshold Disclosed Per
- ( ) Material
- (•) Product

Threshold Level
- ( ) 100 ppm
- (•) 1,000 ppm
- ( ) Per GHS SDS
- ( ) Other

Residuals/Impurities
Considered in 10 of 10 Materials

Explanation(s) provided for Residuals/Impurities?
(•) Yes ( ) No

All Substances Above the Threshold Indicated Are:

Characterized ( ) Yes Ex/SC (•) Yes ( ) No

% weight and role provided for all substances.

Screened ( ) Yes Ex/SC (•) Yes ( ) No

All substances screened using Priority Hazard Lists with results disclosed.

Identified ( ) Yes Ex/SC ( ) Yes (•) No

One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

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

HOT DIPPED GALVANIZED STEEL [IRON LT-P1 | END VANADIUM LT-1 | MUL | CAN | GEN NICKEL LT-1 | CAN | RES | MUL | SKI | MAM CHROMIUM LT-P1 | END | SKI | RES TITANIUM LT-UNK NITROGEN NoGS 3003-H14 ALUMINUM BM-1 | END | RES | PHY COPPER LT-P1 | GEN SULFUR LT-UNK | SKI PHOSPHORUS BM-2 | MAM | PHY MANGANESE LT-P1 | END | MUL | REP SILICON LT-UNK CARBON LT-UNK] CALCIUM SILICATE BOARD [UNDISCLOSED LT-UNK UNDISCLOSED BM-3dg UNDISCLOSED BM-1 | CAN UNDISCLOSED LT-P1 | CAN | END UNDISCLOSED NoGS] GASKET 1 [NEOPRENE LT-UNK ALUMINA TRIHYDRATE BM-2 | RES CHLORINATED PARAFFIN WAXES – GENERIC LT-P1 | CAN | END | AQU | PBT CARBON BLACK BM-1 | CAN ANTIMONY TRIOXIDE BM-1 | MUL | CAN ZINC OXIDE BM-1 | END | RES | MUL | AQU 2-THIAZOLIDINETHIONE, 3-METHYL- NoGS] STEEL BEAD [IRON LT-P1 | END SULFUR LT-UNK | SKI PHOSPHORUS BM-2 | MAM | PHY MANGANESE LT-P1 | END | MUL | REP SILICON LT-UNK CARBON LT-UNK COPPER LT-P1 | GEN 3003-H14 ALUMINUM BM-1 | END | RES | PHY NICKEL LT-1 | CAN | RES | MUL | SKI | MAM CHROMIUM LT-P1 | END | SKI | RES TITANIUM LT-UNK VANADIUM LT-1 | MUL | CAN | GEN NITROGEN NoGS] STAINLESS STEEL [IRON LT-P1 | END NITROGEN NoGS MANGANESE LT-P1 | END | MUL | REP NICKEL LT-1 | CAN | RES | MAM | MUL | SKI CHROMIUM LT-P1 | END | SKI | RES SULFUR LT-UNK | SKI PHOSPHORUS BM-2 | MAM | PHY SILICON LT-UNK CARBON LT-UNK] WELDING WIRE [IRON LT-P1 | END SILICON LT-UNK NICKEL LT-1 | CAN | RES | MAM | MUL | SKI TITANIUM LT-UNK VANADIUM LT-1 | MUL | CAN | GEN CARBON LT-UNK MANGANESE LT-P1 | END | MUL | REP COPPER LT-P1 | GEN CHROMIUM LT-P1 | END | SKI | RES MOLYBDENUM LT-UNK] PUTTY [PN-1 RESIN LT-UNK STYRENE BM-1 | END | CAN | RES | MUL | REP | SKI | EYE | MAM | DEV TALC BM-1 |

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

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

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

All substances have been disclosed to at least 1,000 ppm of their respective material. Proprietary substances were disclosed by the suppliers with percentages, roles and hazards provided and entered accordingly. Not all substance name and identifiers are disclosed due to their proprietary nature to the supplier or manufacturer, however all substances are screened with their hazards reported.

CAN MAGNESIUM CARBONATE BM-3dg CONTINUOUS FILAMENT GLASS FIBER, NON-RESPIRABLE LT-UNK QUATERNARY AMMONIUM COMPOUNDS, BIS(HYDROGENATED TALLOWALKYL)DIMETHYL, MONTMORILLONITES NoGS LIMESTONE BM-3dg CHLORITE NoGS TITANIUM DIOXIDE LT-1 | CAN | END *QUARTZ* BM-1 | CAN] PAINT PRIMER [UNDISCLOSED BM-3 TITANIUM DIOXIDE LT-1 | CAN | END BUTYL ACETATE LT-UNK METHYL N-AMYL KETONE BM-U ZINC OXIDE BM-1 | END | RES | MUL | AQU] PAINT CATALYST [HEXAMETHYLENE DIISOCYANATE HOMOPOLYMER (HDI HOMOPOLYMER) LT-P1 BUTYL ACETATE LT-UNK 1,6-HEXAMETHYLENE DIISOCYANATE LT-UNK | RES | SKI | EYE | MAM] PAINT TOP COAT [TITANIUM DIOXIDE LT-1 | CAN | END UNDISCLOSED BM-3 CYCLOHEXANONE LT-P1 | CAN | END BUTYL ACETATE LT-UNK METHYL ETHYL KETONE LT-P1 | END | EYE | PHY TOLUENE BM-1 | END | DEV | MUL | REP | SKI | PHY | MAM XYLENES BM-1 | END | MUL | REP | SKI ETHYLBENZENE BM-1 | END | SKI | CAN | REP | PHY | 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: N/A

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

- ○ Yes
- ◉ No

PREPARER: Self-Prepared
VERIFIER:
VERIFICATION #:

SCREENING DATE: 2022-04-08
PUBLISHED DATE: 2022-04-08
EXPIRY DATE: 2025-04-08

Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- *Basic Inventory method with Product-level threshold.*
- *Nested Material Inventory method with Product-level threshold*
- *Nested Material Inventory method with individual Material-level thresholds*

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.2, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-2-standard

HOT DIPPED GALVANIZED STEEL

%: 33.4200 - 33.6200

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

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

OTHER MATERIAL NOTES: The raw material range is based on content percent from a range of products and product lines that are supported by this HPD

IRON

ID: 7439-89-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library | HAZARD SCREENING DATE: 2022-04-08 11:08:16

%: 99.6120 - 100.0000 | GS: LT-P1 | RC: UNK | NANO: No | SUBSTANCE ROLE: Alloy element

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

VANADIUM

ID: 7440-62-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library | HAZARD SCREENING DATE: 2022-04-08 11:08:40

%: 0.0000 - 0.0010 | GS: LT-1 | RC: UNK | NANO: No | SUBSTANCE ROLE: Alloy element

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CAN	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
GEN	MAK	Germ Cell Mutagen 2

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NICKEL

ID: 7440-02-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library | HAZARD SCREENING DATE: 2022-04-08 11:08:42

%: 0.0000 - 0.0210 | GS: LT-1 | RC: UNK | NANO: No | SUBSTANCE ROLE: Alloy element

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CHROMIUM

ID: 7440-47-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:41**

%: **0.0000 - 0.0250** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

TITANIUM

ID: 7440-32-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:41**

%: **0.0000 - 0.0010** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NITROGEN

ID: 7727-37-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:40**

%: **0.0000 - 0.0030** GS: **NoGS** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

3003-H14 ALUMINUM

ID: 7429-90-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:38**

%: **0.0000 - 0.0310** GS: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

COPPER

ID: 7440-50-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:37**

%: **0.0000 - 0.0220** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
GEN	GHS - New Zealand	Germ cell mutagenicity category 1

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SULFUR

ID: 7704-34-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:37**

%: **0.0000 - 0.0080** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]

SUBSTANCE NOTES: Substance ranges based on alloy composition.

PHOSPHORUS

ID: 7723-14-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:45**

%: **0.0000 - 0.0100** GS: **BM-2** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H228 - Flammable solid [Flammable solids - Category 1 or 2]

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MANGANESE

ID: **7439-96-5**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:45**

%: **0.0000 - 0.2160** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SILICON

ID: **7440-21-3**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:46**

%: **0.0000 - 0.0070** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CARBON

ID: **7440-44-0**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:46**

%: **0.0000 - 0.0430** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CALCIUM SILICATE BOARD

%: 29.2000 - 30.5000

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: Yes MATERIAL TYPE: Other: Calcium Silicate Board

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

OTHER MATERIAL NOTES: The raw material range is based on content percent from a range of products and product lines that are supported by this HPD

UNDISCLOSED ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:20**

%: **25.0000 - 30.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Structure component**

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

SUBSTANCE NOTES: The substance ranges are based on Calcium Silicate Board composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm. Per our agreement with the board supplier the raw materials are screened but kept confidential.

UNDISCLOSED ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:25**

%: **10.0000 - 13.0000** GS: **BM-3dg** RC: **None** NANO: **No** SUBSTANCE ROLE: **Structure component**

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

SUBSTANCE NOTES: The substance ranges are based on Calcium Silicate Board composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm. Per our agreement with the board supplier the raw materials are screened but kept confidential.

UNDISCLOSED ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:02:40**

%: **10.0000 - 20.0000** GS: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Structure component**

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

SUBSTANCE NOTES: The substance ranges are based on Calcium Silicate Board composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm. Per our agreement with the board supplier the raw materials are screened but kept confidential.

UNDISCLOSED ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:03:28**

%: **10.0000 - 20.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES: The substance ranges are based on Calcium Silicate Board composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm. Per our agreement with the board supplier the raw materials are screened but kept confidential.

UNDISCLOSED ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:32**

%: **1.0000 - 4.0000** GS: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Structure component**

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

SUBSTANCE NOTES: The substance ranges are based on Calcium Silicate Board composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm. Per our agreement with the board supplier the raw materials are screened but kept confidential.

GASKET 1 **%: 11.3000 - 11.3900**

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

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

OTHER MATERIAL NOTES: The raw material range is based on content percent from a range of products and product lines that are supported by this HPD

NEOPRENE

ID: 9010-98-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:18**

%: **40.0000 - 50.0000** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Film former**

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

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

ALUMINA TRIHYDRATE

ID: 21645-51-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:19**

%: **35.0000 - 45.0000** GS: **BM-2** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Flame retardant**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

CHLORINATED PARAFFIN WAXES – GENERIC

ID: 63449-39-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:28**

%: **5.0000 - 10.0000** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Flame retardant**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
END	ChemSec - SIN List	Endocrine Disruption
AQU	US EPA - PPT Chemical Action Plans	Highly toxic to aquatic organisms
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTE) to the Environment (based on aquatic organisms)
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Substance of Possible Concern

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

CARBON BLACK

ID: 1333-86-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:30**

%: **2.0000 - 8.0000** GS: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Filler**

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

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

ANTIMONY TRIOXIDE

ID: 1309-64-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:32**

%: **1.0000 - 2.5000** GS: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Flame retardant**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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
CAN	GHS - Japan	H350 - May cause cancer [Carcinogenicity - Category 1B]
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

ZINC OXIDE

ID: 1314-13-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:33**

%: **1.0000 - 3.0000** GS: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Curing agent**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
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]

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

2-THIAZOLIDINETHIONE, 3-METHYL-

ID: 1908-87-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:33**

%: **0.5000 - 2.0000** GS: **NoGS** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Curing agent**

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

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

STEEL BEAD

%: 7.8000 - 7.9100

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

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were investigated for this material, however based on supplier documentation it was confirmed that no residuals or impurities are present above 1,000 ppm of the product.

OTHER MATERIAL NOTES: The raw material range is based on content percent from a range of products and product lines that are supported by this HPD

IRON

ID: 7439-89-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:15**

%: **99.6120 - 100.0000** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SULFUR

ID: 7704-34-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:44**

%: **0.0000 - 0.0077** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]

SUBSTANCE NOTES: Substance ranges based on alloy composition.

PHOSPHORUS

ID: 7723-14-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:44**

%: **0.0000 - 0.0104** GS: **BM-2** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H228 - Flammable solid [Flammable solids - Category 1 or 2]

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-03-23 9:26:37**

%: **0.0000 - 0.2159** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SILICON

ID: 7440-21-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:40**

%: **0.0000 - 0.0074** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CARBON

ID: 7440-44-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:42**

%: **0.0000 - 0.0429** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

COPPER

ID: 7440-50-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:43**

%: **0.0000 - 0.0216** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
GEN	GHS - New Zealand	Germ cell mutagenicity category 1

SUBSTANCE NOTES: Substance ranges based on alloy composition.

3003-H14 ALUMINUM

ID: 7429-90-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:52**

%: **0.0000 - 0.0312** GS: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NICKEL

ID: 7440-02-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:52**

%: **0.0000 - 0.0209** GS: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CHROMIUM

ID: 7440-47-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:53**

%: **0.0000 - 0.0246** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

TITANIUM

ID: 7440-32-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:54**

%: **0.0000 - 0.0008** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

VANADIUM

ID: 7440-62-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:55**

%: **0.0000 - 0.0012** GS: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CAN	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
GEN	MAK	Germ Cell Mutagen 2

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NITROGEN

ID: 7727-37-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:55**

%: **0.0000 - 0.0030** GS: **NoGS** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

STAINLESS STEEL

%: **6.0000 - 6.3000**

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

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

OTHER MATERIAL NOTES: The raw material range is based on content percent from a range of products and product lines that are supported by this HPD

IRON

ID: 7439-89-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:17**

%: **67.1170 - 100.0000** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NITROGEN

ID: 7727-37-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:49**

%: **0.0000 - 4.8000** GS: **NoGS** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:51**

%: **0.0000 - 1.2100** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NICKEL

ID: 7440-02-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2018-11-30 14:01:37**

%: **0.0000 - 8.1000** GS: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
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	US NIH - Report on Carcinogens	Known to be a human Carcinogen
CAN	IARC	Group 2b - Possibly carcinogenic to humans
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
CAN	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
MAM	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
SKI	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CAN	CA EPA - Prop 65	Carcinogen

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CHROMIUM

ID: 7440-47-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:49**

%: **0.0000 - 18.2000** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SULFUR

ID: 7704-34-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:50**

%: **0.0000 - 0.0010** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]

SUBSTANCE NOTES: Substance ranges based on alloy composition.

PHOSPHORUS

ID: 7723-14-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:50**

%: **0.0000 - 0.0320** GS: **BM-2** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MAM	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H228 - Flammable solid [Flammable solids - Category 1 or 2]

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SILICON

ID: 7440-21-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:47**

%: **0.0000 - 0.5000** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CARBON

ID: 7440-44-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:51**

%: **0.0000 - 0.0400** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

WELDING WIRE

%: **5.8000 - 5.8500**

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

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

OTHER MATERIAL NOTES: The raw material range is based on content percent from a range of products and product lines that are supported by this HPD

IRON

ID: **7439-89-6**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:16**

%: **80.0000 - 100.0000** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SILICON

ID: **7440-21-3**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2018-11-30 14:01:37**

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

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NICKEL

ID: **7440-02-0**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2018-11-30 14:01:37**

%: **0.0000 - 3.0000** GS: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
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	US NIH - Report on Carcinogens	Known to be a human Carcinogen
CAN	IARC	Group 2b - Possibly carcinogenic to humans
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
CAN	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
MAM	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
SKI	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CAN	CA EPA - Prop 65	Carcinogen

SUBSTANCE NOTES: Substance ranges based on alloy composition.

TITANIUM ID: **7440-32-6**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2018-11-30 14:01:37**

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

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

VANADIUM ID: **7440-62-2**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2018-11-30 14:01:37**

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

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CAN	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
GEN	MAK	Germ Cell Mutagen 2

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CARBON

ID: 7440-44-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:51**

%: **0.0000 - 1.5000** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:47**

%: **0.0000 - 3.0000** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

COPPER

ID: 7440-50-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:48**

%: **0.0000 - 1.0000** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
GEN	GHS - New Zealand	Germ cell mutagenicity category 1

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CHROMIUM

ID: 7440-47-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:48**

%: **0.0000 - 10.0000** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Alloy element**

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MOLYBDENUM

ID: 7439-98-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2018-11-30 14:01:37**

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

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

SUBSTANCE NOTES: Substance ranges based on alloy composition.

PUTTY

%: **0.0500 - 0.1500**

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

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

OTHER MATERIAL NOTES: The raw material range is based on content percent from a range of products and product lines that are supported by this HPD.

PN-1 RESIN

ID: **26123-45-5**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:23**

%: **15.0000 - 40.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Polymer species**

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

SUBSTANCE NOTES: The substance ranges are based on putty composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

STYRENE

ID: **100-42-5**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:26**

%: **10.0000 - 30.0000** GS: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Polymer species**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
END	ChemSec - SIN List	Endocrine Disruption
CAN	CA EPA - Prop 65	Carcinogen
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
CAN	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
CAN	IARC	Group 2a - Agent is probably Carcinogenic to humans
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CAN	MAK	Carcinogen Group 5 - Genotoxic carcinogen with very slight risk under MAK/BAT levels
END	EU - Priority Endocrine Disruptors	Category 1 - In vivo evidence of Endocrine Disruption Activity
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1A]
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
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]
DEV	EU - GHS (H-Statements) Annex 6 Table 3-1	H361d - Suspected of damaging the unborn child [Reproductive toxicity - Category 2]

SUBSTANCE NOTES: The substance ranges are based on putty composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

TALC ID: **14807-96-6**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:24**

%: **10.0000 - 30.0000** GS: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
CAN	IARC	Group 2b - Possibly carcinogenic to humans

SUBSTANCE NOTES: The substance ranges are based on putty composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

MAGNESIUM CARBONATE ID: **546-93-0**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:27**

%: **7.0000 - 15.0000** GS: **BM-3dg** RC: **None** NANO: **No** SUBSTANCE ROLE: **Structure component**

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

SUBSTANCE NOTES: The substance ranges are based on putty composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

CONTINUOUS FILAMENT GLASS FIBER, NON-RESPIRABLE

ID: **65997-17-3**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:28**

%: **5.0000 - 10.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Structure component**

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

SUBSTANCE NOTES: The substance ranges are based on putty composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

QUATERNARY AMMONIUM COMPOUNDS, BIS(HYDROGENATED TALLOWALKYL)DIMETHYL, MONTMORILLONITES

ID: **68911-87-5**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:31**

%: **1.0000 - 5.0000** GS: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Polymer species**

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

SUBSTANCE NOTES: The substance ranges are based on putty composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

LIMESTONE

ID: **1317-65-3**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:31**

%: **1.0000 - 5.0000** GS: **BM-3dg** RC: **None** NANO: **No** SUBSTANCE ROLE: **Structure component**

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

SUBSTANCE NOTES: The substance ranges are based on putty composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

CHLORITE

ID: **1318-59-8**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:35**

%: **0.1000 - 2.0000** GS: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Brightener**

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

SUBSTANCE NOTES: The substance ranges are based on putty composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

TITANIUM DIOXIDE

ID: 13463-67-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:35**

%: **0.1000 - 1.0000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Brightener**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CAN	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

SUBSTANCE NOTES: The substance ranges are based on putty composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

QUARTZ

ID: 14808-60-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:36**

%: **Impurity/Residual** GS: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

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

SUBSTANCE NOTES: The substance ranges are based on putty composition provided by the supplier. Residuals and impurities were investigated for this material based on supplier documentation and were noted when present above 1000 ppm.

PAINT PRIMER

%: 0.0000 - 4.7100

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

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were considered as not all substances in this material are screened down to 1,000 ppm.

OTHER MATERIAL NOTES: The raw material range is based on content percent from a range of products and product lines that are supported by this HPD

UNDISCLOSED

ID: **Undisclosed**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:18**

%: **49.5000 - 50.5000** GS: **BM-3** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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

SUBSTANCE NOTES: This material is screened but not disclosed as it is deemed proprietary by the supplier.

TITANIUM DIOXIDE

ID: **13463-67-7**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:21**

%: **20.6200** GS: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Brightener**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CAN	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

SUBSTANCE NOTES:

BUTYL ACETATE

ID: 123-86-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:22**

%: **18.4600** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Binder**

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

SUBSTANCE NOTES:

METHYL N-AMYL KETONE

ID: 110-43-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:26**

%: **8.4000** GS: **BM-U** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Catalyst**

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

SUBSTANCE NOTES:

ZINC OXIDE

ID: 1314-13-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:30**

%: **2.5400** GS: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Brightener**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
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]

SUBSTANCE NOTES:

PAINT CATALYST **%: 0.0000 - 4.7100**

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

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were considered as not all substances in this material are screened down to 1,000 ppm.

OTHER MATERIAL NOTES: The raw material range is based on content percent from a range of products and product lines that are supported by this HPD

HEXAMETHYLENE DIISOCYANATE HOMOPOLYMER (HDI HOMOPOLYMER)

ID: 28182-81-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:17**

%: **74.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Catalyst**

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

SUBSTANCE NOTES:

BUTYL ACETATE

ID: 123-86-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:21**

%: **25.0000** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Catalyst**

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

SUBSTANCE NOTES:

1,6-HEXAMETHYLENE DIISOCYANATE

ID: 822-06-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:34**

%: **0.3000** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Catalyst**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RES	AOEC - Asthmagens	Asthmagen (G) - generally accepted
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H317 - May cause an allergic skin reaction [Skin sensitization - Category 1]
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
RES	EU - GHS (H-Statements) Annex 6 Table 3-1	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled [Respiratory sensitization - Category 1]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]

SUBSTANCE NOTES:

PAINT TOP COAT

%: 0.0000 - 4.7100

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

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were considered as not all substances in this material are screened down to 1,000 ppm.

OTHER MATERIAL NOTES: The raw material range is based on content percent from a range of products and product lines that are supported by this HPD

TITANIUM DIOXIDE

ID: 13463-67-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:19**

%: **29.9500** GS: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Brightener**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CAN	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]

SUBSTANCE NOTES:

UNDISCLOSED

ID: Undisclosed

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:19**

%: **25.1200 - 25.3200** GS: **BM-3** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

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

SUBSTANCE NOTES: This material has been screened but not disclosed as it is deemed proprietary by the supplier.

CYCLOHEXANONE

ID: 108-94-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:22**

%: **19.5100** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Catalyst**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES:

BUTYL ACETATE

ID: 123-86-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:23**

%: **11.4600** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Binder**

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

SUBSTANCE NOTES:

METHYL ETHYL KETONE

ID: 78-93-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:27**

%: **6.0300** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Catalyst**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]

SUBSTANCE NOTES:

TOLUENE

ID: 108-88-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:29**

%: **4.4500** GS: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Catalyst**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
DEV	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
DEV	CA EPA - Prop 65	Developmental toxicity
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REP	CA EPA - Prop 65	Reproductive Toxicity - Female
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1A]
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H304 - May be fatal if swallowed and enters airways [Aspiration hazard - Category 1]
DEV	EU - GHS (H-Statements) Annex 6 Table 3-1	H361d - Suspected of damaging the unborn child [Reproductive toxicity - Category 2]

SUBSTANCE NOTES:

XYLENES

ID: 1330-20-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:29**

%: **2.7900** GS: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Catalyst**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]

SUBSTANCE NOTES:

ETHYLBENZENE

ID: 100-41-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-04-08 11:08:34**

%: **0.4900** GS: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Catalyst**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
CAN	CA EPA - Prop 65	Carcinogen
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
CAN	IARC	Group 2b - Possibly carcinogenic to humans
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1A]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H304 - May be fatal if swallowed and enters airways [Aspiration hazard - Category 1]

SUBSTANCE NOTES:

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS	N/A

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

ISSUE DATE: 2022-03-22

EXPIRY DATE: 2024-03-22

CERTIFIER OR LAB: None.

CERTIFICATION AND COMPLIANCE NOTES: VOC testing is not applicable for this product line

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

Section 5: General Notes

Vetrotech takes our environmental responsibilities very seriously. We can offer our customers complete assurance that our glass solutions meet internationally recognized environmental standards at every stage of their life cycles. In terms of building sustainability, our solutions come with REACH certification and contribute to the building occupants' comfort and safety. We also support you in gaining points for sustainable building labels such as LEED, BREAM, WELL, DGNB, HQE and others by providing you EPDs and HPDs on demand.

For more information, visit www.vetrotech.com. To learn about how Vetrotech can contribute to green building labels, visit greenbuilding.sant-gobain.com.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Saint Gobain**
ADDRESS: **2108 B Street N.W. Suite 110**
Auburn WA 98001, USA
WEBSITE: **https://www.vetrotech.com/en/usa/downloads**

CONTACT NAME: **Lori Jerome**
TITLE: **Digital Marketing Analyst, North America**
PHONE: **+1 888 803 9533**
EMAIL: **north.america@vetrotech.com**

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

KEY

Hazard Types

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

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)
BM-3 Benchmark 3 (use but still opportunity for improvement)
BM-2 Benchmark 2 (use but search for safer substitutes)
BM-1 Benchmark 1 (avoid - chemical of high concern)
BM-U Benchmark Unspecified (due to insufficient data)
LT-P1 List Translator Possible 1 (Possible Benchmark-1)
LT-1 List Translator 1 (Likely Benchmark-1)
LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the information contained within the list did not result in a clear mapping to a LT-1 or LTP1 score.)
NoGS No GreenScreen.

Recycled Types

PreC Pre-consumer recycled content
PostC Post-consumer recycled content
UNK Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms:

GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material
Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- *a method for the assessment of exposure or risk associated with product handling or use,*
- *a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.