

HPD UNIQUE IDENTIFIER: 28134

CLASSIFICATION: 08 44 00 Curtain Wall and Glazed Assemblies

PRODUCT DESCRIPTION: VDS Curtain Wall by Forster is a comprehensive steel curtain wall system that offers monumental advantages. Ideal for applications that require high-span, self-supporting construction. VDS Curtain Wall by Forster can meet the demand for fire resistance and a barrier to radiant heat in both interior and exterior openings. The versatile VDS Curtain Wall by Forster features a thermal break which adds to the overall performance of this fire-rated system.

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format	Threshold Level	Residuals/Impurities	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.
☒ Nested Materials Method	☐ 100 ppm	Considered in 11 of 11 Materials	
☐ Basic Method	☒ 1,000 ppm	Explanation(s) provided for Residuals/Impurities?	
Threshold Disclosed Per	☐ Per GHS SDS	☒ Yes ☐ No	
☐ Material	☐ Other		
☒ Product			

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 ROLLED STEEL [IRON LT-P1 | END NICKEL LT-1 | CAN | RES | MUL | SKI | MAM MOLYBDENUM LT-UNK VANADIUM LT-1 | MUL | CAN | GEN BORON LT-UNK NIOBIUM LT-UNK COPPER LT-P1 | GEN CHROMIUM LT-P1 | END | SKI | RES TITANIUM LT-UNK 3003-H14 ALUMINUM BM-1 | END | RES | PHY NITROGEN NoGS SULFUR LT-UNK | SKI PHOSPHORUS BM-2 | MAM | PHY SILICON LT-UNK MANGANESE LT-P1 | END | MUL | REP CARBON LT-UNK] GASKET 2 [CARBON BLACK BM-1 | CAN ETHYLENE/PROPYLENE/DIENE TERPOLYMER (EPDM) LT-UNK LIMESTONE, CALCIUM CARBONATE BM-3dg ACTIVE DICUMYL PEROXIDE LT-P1 | MUL | RES | SKI | EYE | AQU | PHY CALCIUM OXIDE BM-2 HYDROTREATED HEAVY PARAFFINIC PETROLEUM DISTILLATES (MINERAL OIL) LT-1 | CAN | MUL RESIDUAL OILS, PETROLEUM, HYDROTREATED LT-1 | CAN | PBT | MUL] PRESSURE PLATE [IRON LT-P1 | END MANGANESE LT-P1 | END | MUL | REP SILICON LT-UNK CARBON LT-UNK PHOSPHORUS BM-2 | MAM | PHY NITROGEN NoGS NICKEL LT-1 | CAN | RES | MUL | SKI | MAM CHROMIUM LT-P1 | END | SKI | RES SULFUR LT-UNK | SKI] WELDING WIRE [IRON LT-P1 | END VANADIUM LT-1 | MUL | CAN | GEN SILICON LT-UNK NICKEL LT-1 | CAN | RES | MUL | SKI | MAM TITANIUM LT-UNK MOLYBDENUM LT-UNK CARBON LT-UNK MANGANESE LT-P1 | END | MUL | REP COPPER LT-P1 | GEN CHROMIUM LT-P1 | END | SKI | RES] COVER CAP [3003-H14 ALUMINUM BM-1 | END | RES | PHY MAGNESIUM LT-UNK | PHY SILICON LT-UNK IRON LT-P1 | END MANGANESE LT-P1 | END | MUL | REP TITANIUM LT-UNK ZINC LT-P1 | AQU | PHY | END | MUL CHROMIUM LT-P1 | END | SKI | RES COPPER LT-P1 | GEN] STAINLESS STEEL [IRON LT-P1 | END NITROGEN NoGS NICKEL LT-1 | CAN | RES | MUL | SKI | MAM CHROMIUM LT-P1 | END | SKI | RES SULFUR LT-UNK | SKI PHOSPHORUS BM-2 | MAM | PHY SILICON LT-UNK CARBON LT-UNK MANGANESE LT-P1 | END | MUL | REP] SCREWS [IRON LT-P1 | END NICKEL LT-1 | CAN | RES | MUL | SKI | MAM MANGANESE LT-P1 |

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.

END | MUL | REP **CHROMIUM** LT-P1 | END | SKI | RES **CARBON** LT-UNK
SILICON LT-UNK **PHOSPHORUS** BM-2 | MAM | PHY **SULFUR** LT-UNK |
SKI **BORON** LT-UNK] **PUTTY** [**PN-1 RESIN** LT-UNK **TALC** BM-1 | CAN
STYRENE BM-1 | END | CAN | RES | MUL | REP | SKI | EYE | MAM | DEV
MAGNESIUM CARBONATE BM-3dg **CONTINUOUS FILAMENT GLASS**
FIBER, NON-RESPIRABLE LT-UNK **QUATERNARY AMMONIUM**
COMPOUNDS, BIS(HYDROGENATED TALLOWALKYL)DIMETHYL,
MONTMORILLONITES NoGS **LIMESTONE** BM-3dg *QUARTZ* BM-1 | CAN
CHLORITE NoGS **TITANIUM DIOXIDE** LT-1 | CAN | END] **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
Other: UL Certificate of Compliance

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

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 ROLLED STEEL		%: 56.5000 - 56.6900	
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 10:31:44		
%: 99.4330 - 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: The substance ranges based on alloy composition provided by the supplier.				

NICKEL

ID: 7440-02-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-22 12:26:31		
%: 0.0000 - 0.0290	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: The substance ranges based on alloy composition provided by the supplier.		

MOLYBDENUM

ID: 7439-98-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:18		
%: 0.0000 - 0.0040	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: The substance ranges based on alloy composition provided by the supplier.				

VANADIUM

ID: 7440-62-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:19		
%: 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: The substance ranges based on alloy composition provided by the supplier.		

BORON

ID: 7440-42-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:20		
%: 0.0000 - 0.0001	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: The substance ranges based on alloy composition provided by the supplier.				

NIOBIUM

ID: 7440-03-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:19		
%: 0.0000 - 0.0001	GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Tensile strength additive
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
SUBSTANCE NOTES: The substance ranges based on alloy composition provided by the supplier.				

COPPER

ID: 7440-50-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-22 12:26:32		
%: 0.0000 - 0.0260	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: The substance ranges based on alloy composition provided by the supplier.				

CHROMIUM

ID: 7440-47-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-22 12:26:31		
%: 0.0000 - 0.0270	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: The substance ranges based on alloy composition provided by the supplier.		

TITANIUM

ID: 7440-32-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-22 12:26:30		
%: 0.0000 - 0.0250	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: The substance ranges based on alloy composition provided by the supplier.				

3003-H14 ALUMINUM

ID: 7429-90-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-22 12:26:30		
%: 0.0000 - 0.0320	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: The substance ranges based on alloy composition provided by the supplier.				

NITROGEN

ID: 7727-37-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-22 12:26:29		
%: 0.0000 - 0.0360	GS: NoGS	RC: UNK	NANO: No	SUBSTANCE ROLE: Corrosion inhibitor
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
SUBSTANCE NOTES: The substance ranges based on composition provided by the supplier.				

SULFUR

ID: 7704-34-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-22 12:26:33		
?: 0.0000 - 0.0060	GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Chelating agent

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: The substance ranges based on alloy composition provided by the supplier.		

PHOSPHORUS

ID: 7723-14-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:13		
%: Impurity/Residual	GS: BM-2	RC: UNK	NANO: No	SUBSTANCE ROLE: Impurity/Residual
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: The substance ranges based on alloy composition provided by the supplier.				

SILICON

ID: 7440-21-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:07		
%: 0.0000 - 0.0120	GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Antioxidant
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
SUBSTANCE NOTES: The substance ranges based on composition provided by the supplier.				

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:12		
%: 0.0000 - 0.3300	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: The substance ranges based on alloy composition provided by the supplier.				

CARBON

ID: 7440-44-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:08		
%: 0.0000 - 0.0660	GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Alloy element

CARBON BLACK				ID: 1333-86-4	
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:31:48		
%: 30.0000 - 40.0000		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.					

ETHYLENE/PROPYLENE/DIENE TERPOLYMER (EPDM)				ID: 25038-36-2	
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:49			
%: 25.0000 - 35.0000	GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Plasticizer	
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 information provided by the raw material supplier.					

LIMESTONE, CALCIUM CARBONATE					ID: 1317-65-3
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-03-22 12:26:11		
%: 10.0000 - 20.0000	GS: BM-3dg	RC: UNK	NANO: No	SUBSTANCE ROLE: Filler	
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 information provided by the raw material supplier.					

ACTIVE DICUMYL PEROXIDE				ID: 80-43-3	
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:31:58		
%: 1.0000 - 3.0000		GS: LT-P1	RC: UNK	NANO: No	SUBSTANCE ROLE: Curing agent

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MUL	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
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]
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H242 - Heating may cause a fire [Self-reactive substances and mixtures; and Organic peroxides - Types C or D or E or F]
SUBSTANCE NOTES: The substance ranges are based on information provided by the raw material supplier.		

CALCIUM OXIDE

ID: 1305-78-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:00		
%: 0.5000 - 2.0000	GS: BM-2	RC: UNK	NANO: No	SUBSTANCE ROLE: Humectant
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 information provided by the raw material supplier.				

HYDROTREATED HEAVY PARAFFINIC PETROLEUM DISTILLATES (MINERAL OIL)

ID: 64742-54-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:17		
%: 0.0000 - 25.0000	GS: LT-1	RC: UNK	NANO: No	SUBSTANCE ROLE: Lubricant
HAZARD TYPE	AGENCY AND LIST TITLES	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		
MUL	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant		
CAN	GHS - Australia	H350 - May cause cancer [Carcinogenicity - Category 1A or 1B]		
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H350 - May cause cancer [Carcinogenicity - Category 1A or 1B]		

SUBSTANCE NOTES: The substance ranges are based on information provided by the raw material supplier.. Purified and free of PAH, therefore classified as non-dangerous (DMSO-extract below 3 %wt).

RESIDUAL OILS, PETROLEUM, HYDROTREATED

ID: 64742-57-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:18		
%: 0.0000 - 25.0000	GS: LT-1	RC: UNK	NANO: No	SUBSTANCE ROLE: Lubricant
HAZARD TYPE	AGENCY AND LIST TITLES	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		
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans		
MUL	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant		
CAN	GHS - Australia	H350 - May cause cancer [Carcinogenicity - Category 1A or 1B]		
CAN	EU - GHS (H-Statements) Annex 6 Table 3-1	H350 - May cause cancer [Carcinogenicity - Category 1A or 1B]		

SUBSTANCE NOTES: The substance ranges are based on information provided by the raw material supplier. Substance ranges based on supplier documentation. Purified and free of PAH, therefore classified as non-dangerous (DMSO-extract below 3 %wt).

PRESSURE PLATE

%: 12.3100 - 12.4100

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 10:31:46		
%: 71.5200 - 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: The substance ranges based on alloy composition provided by the supplier.

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:16		
%: 0.0000 - 1.5800	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: The substance ranges based on alloy composition provided by the supplier.		

SILICON

ID: 7440-21-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:16		
%: 0.0000 - 0.4000	GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Antioxidant
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 information provided by the raw material supplier.				

CARBON

ID: 7440-44-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:17		
%: 0.0000 - 0.0200	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: The substance ranges based on alloy composition provided by the supplier.				

PHOSPHORUS

ID: 7723-14-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:21				
?: 0.0000 - 0.0340		GS: BM-2		RC: UNK	NANO: No	SUBSTANCE ROLE: Tensile strength additive
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: The substance ranges are based on information provided by the raw material supplier.						

NITROGEN

ID: 7727-37-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:29		
?: 0.0000 - 0.0450	GS: NoGS	RC: UNK	NANO: No	SUBSTANCE ROLE: Corrosion inhibitor

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 information provided by the raw material supplier.		
NICKEL		ID: 7440-02-0
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:29
%: 0.0000 - 8.1000	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: The substance ranges based on alloy composition provided by the supplier.		
CHROMIUM		ID: 7440-47-3
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:30
%: 0.0000 - 18.3000	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: The substance ranges based on alloy composition provided by the supplier.		

SULFUR				ID: 7704-34-9	
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:32:30		
%: 0.0000 - 0.0010		GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Chelating agent
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: The substance ranges based on alloy composition provided by the supplier.					
WELDING WIRE		%: 6.5000 - 6.7000			

WELDING WIRE

WELDING WIRE		%: 6.5000 - 6.7000	
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 10:31:45		
%: 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: The substance ranges based on alloy composition provided by the supplier.					

VANADIUM					ID: 7440-62-2
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-03-22 12:26:43		
%: 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: The substance ranges based on alloy composition provided by the supplier.					

SILICON				ID: 7440-21-3	
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:32:24		
%: 0.0000 - 1.0000		GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Lubricant
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 information provided by the raw material supplier.					

NICKEL			ID: 7440-02-0		
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:32:25		
%: 0.0000 - 3.0000		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: The substance ranges based on alloy composition provided by the supplier.					

TITANIUM			ID: 7440-32-6		
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:32:26		
%: 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: The substance ranges based on alloy composition provided by the supplier.					

MOLYBDENUM				ID: 7439-98-7	
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:32:27		
%: 0.0000 - 4.0000		GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Corrosion inhibitor
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 information provided by the raw material supplier.					

CARBON

ID: 7440-44-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:32:27		
%: 0.0000 - 1.5000		GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Tensile strength additive
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS		
None found			No warnings found on HPD Priority Hazard Lists		
SUBSTANCE NOTES: The substance ranges based on alloy composition provided by the supplier.					

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:28				
%: 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: The substance ranges based on alloy composition provided by the supplier.						

COPPER

ID: 7440-50-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:28		
%: 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: The substance ranges based on alloy composition provided by the supplier.				

CHROMIUM

ID: 7440-47-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:28		
%: 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: The substance ranges based on alloy composition provided by the supplier.				

COVER CAP

%: 4.2000 - 4.2900

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

3003-H14 ALUMINUM

ID: 7429-90-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-04-08 10:31:45

%: 98.0000 - 99.2500

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: The substance ranges based on alloy composition provided by the supplier.

MAGNESIUM

ID: 7439-95-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-04-08 10:32:01

%: 0.3500 - 0.6000

GS: LT-UNK

RC: UNK

NANO: No

SUBSTANCE ROLE: Tensile strength additive

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

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]

PHY

EU - GHS (H-Statements) Annex 6 Table 3-1

H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]

SUBSTANCE NOTES: The substance ranges are based on information provided by the raw material supplier.

SILICON

ID: 7440-21-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-04-08 10:32:02

%: 0.3000 - 0.6000

GS: LT-UNK

RC: UNK

NANO: No

SUBSTANCE ROLE: Lubricant

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 information provided by the raw material supplier.

IRON

ID: 7439-89-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-04-08 10:32:04

%: 0.1000 - 0.3000		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: The substance ranges based on alloy composition provided by the supplier.					

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2018-11-30 16:11:15			
%: 0.0000 - 0.1000		GS: LT-P1	RC: UNK	NANO: No	SUBSTANCE ROLE: Tensile strength additive
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	Japan - GHS		Toxic to reproduction - Category 1B		
SUBSTANCE NOTES: The substance ranges are based on information provided by the raw material supplier.					

TITANIUM

ID: 7440-32-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:14			
%: 0.0000 - 0.1000		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: The substance ranges based on alloy composition provided by the supplier.					

ZINC

ID: 7440-66-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2018-11-30 16:11:15			
%: 0.0000 - 0.1500		GS: LT-P1	RC: UNK	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS		
AQU	EU - GHS (H-Statements)		H400 - Very toxic to aquatic life		
AQU	EU - GHS (H-Statements)		H410 - Very toxic to aquatic life with long lasting effects		
PHY	EU - GHS (H-Statements)		H250 - Catches fire spontaneously if exposed to air		
PHY	EU - GHS (H-Statements)		H260 - In contact with water releases flammable gases which may ignite spontaneously		
END	TEDX - Potential Endocrine Disruptors		Potential Endocrine Disruptor		
MUL	German FEA - Substances Hazardous to Waters		Class 2 - Hazard to Waters		
SUBSTANCE NOTES: The substance ranges based on alloy composition provided by the supplier.					

CHROMIUM

ID: 7440-47-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:23			
%: 0.0000 - 0.0500		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: The substance ranges based on alloy composition provided by the supplier.					

COPPER

ID: 7440-50-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:24			
%: 0.0000 - 0.1000		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: The substance ranges based on alloy composition provided by the supplier.					

STAINLESS STEEL

%: 1.1000 - 1.1600

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 10:31:47			
%: 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: The substance ranges based on alloy composition provided by the supplier.					

NITROGEN

ID: 7727-37-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:08			
%: 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: The substance ranges based on alloy composition provided by the supplier.					

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:23			
%: 0.0000 - 8.1000		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: The substance ranges based on alloy composition provided by the supplier.					

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:22			
%: 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: The substance ranges based on alloy composition provided by the supplier.					

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:22			
%: 0.0000 - 0.0010		GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Chelating agent

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: The substance ranges based on alloy composition provided by the supplier.		

PHOSPHORUS

ID: 7723-14-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:21		
%: 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: The substance ranges based on alloy composition provided by the supplier.				

SILICON

ID: 7440-21-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:20		
%: 0.0000 - 0.5000	GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Lubricant
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 information provided by the raw material supplier.				

CARBON

ID: 7440-44-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:20		
%: 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: The substance ranges based on alloy composition provided by the supplier.				

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:26		
%: 0.0000 - 1.2100	GS: LT-P1	RC: UNK	NANO: No	SUBSTANCE ROLE: Tensile strength additive

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: The substance ranges are based on information provided by the raw material supplier.		

SCREWS		%: 0.1900
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 10:31:46		
%: 70.0620 - 98.8040	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: The substance ranges based on alloy composition provided by the supplier.				

NICKEL	ID: 7440-02-0
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HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:31:53			
%: 11.1200		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: The substance ranges based on alloy composition provided by the supplier.						

MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:00	
%: 0.8000 - 0.8490		GS: LT-P1	RC: UNK NANO: No SUBSTANCE ROLE: Tensile strength additive
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: The substance ranges based on alloy composition provided by the supplier.			

CHROMIUM

ID: 7440-47-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:32:05		
%: 0.0740 - 17.9600		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: The substance ranges based on alloy composition provided by the supplier.		

CARBON

ID: 7440-44-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:06		
%: 0.0150 - 0.1670	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: The substance ranges based on alloy composition provided by the supplier.				

SILICON

ID: 7440-21-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:05		
%: 0.0150 - 0.0840	GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Lubricant
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 information provided by the raw material supplier.				

PHOSPHORUS

ID: 7723-14-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:06		
?: 0.0090 - 0.0270	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: The substance ranges based on alloy composition provided by the supplier.				

SULFUR

ID: 7704-34-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:07		
?: 0.0010 - 0.0100	GS: LT-UNK	RC: UNK	NANO: No	SUBSTANCE ROLE: Chelating agent

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.		

BORON

ID: 7440-42-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-03-22 12:47:32		
%: 0.0000 - 0.0030	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
None found	No warnings found on HPD Priority Hazard Lists			
SUBSTANCE NOTES: The substance ranges based on alloy composition provided by the supplier.				

PUTTY

%: 0.0400 - 0.0900

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, however based on supplier documentation it was confirmed that no residuals or impurities are present above 100 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.		

PN-1 RESIN

ID: 26123-45-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:52		
%: 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 based on putty composition provided by the supplier.

TALC

ID: 14807-96-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:54		
%: 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.				

STYRENE

ID: 100-42-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:54			
%: 10.0000 - 30.0000		GS: BM-1	RC: None	NANO: No	SUBSTANCE ROLE: Binder
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.					

MAGNESIUM CARBONATE					ID: 546-93-0
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:31:55		
%: 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.					

CONTINUOUS FILAMENT GLASS FIBER, NON-RESPIRABLE				ID: 65997-17-3	
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:56			
%: 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.					

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 10:31:59		
%: 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.					

LIMESTONE					ID: 1317-65-3
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:31:59		
%: 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.					

QUARTZ					ID: 14808-60-7
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:32:04		
%: Impurity/Residual		GS: BM-1	RC: None	NANO: Unknown	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.		

CHLORITE

ID: 1318-59-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:03		
%: 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.				

TITANIUM DIOXIDE

ID: 13463-67-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:03			
%: 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]	
PRODUCT THRESHOLD: 1000 ppm		RESIDUALS AND IMPURITIES CONSIDERED: Yes		MATERIAL TYPE: Other: Paint	
SUBSTANCE NOTES: The substance ranges are based on putty composition provided by the supplier.					
RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were not 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 10:31:47		
%: 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 considered proprietary by the paint supplier thus it is screened by not disclosed.					

TITANIUM DIOXIDE			ID: 13463-67-7		
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:31:50		
%: 20.6200 - 20.7500		GS: LT-1	RC: UNK	NANO: No	SUBSTANCE ROLE: Opacifier
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 information provided by the raw material supplier.					

BUTYL ACETATE					ID: 123-86-4
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:31:51		
%: 18.4600 - 18.8800		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: The substance ranges are based on information provided by the raw material supplier.					

METHYL N-AMYL KETONE					ID: 110-43-0
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2022-04-08 10:31:55		
%: 8.4000 - 8.5000		GS: BM-U	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: The substance ranges are based on information provided by the raw material supplier.

ZINC OXIDE

ID: 1314-13-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:58		
%: 2.5400 - 2.6600	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: The substance ranges are based on information provided by the raw material supplier.

PAINT CATALYST

?: 0.0000 - 4.6700

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

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:45		
%: 74.7000 - 74.9000	GS: LT-P1	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: The substance ranges are based on information provided by the raw material supplier.				

BUTYL ACETATE

ID: 123-86-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:49		
%: 25.0000 - 25.5000	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: The substance ranges are based on information provided by the raw material supplier.				

1,6-HEXAMETHYLENE DIISOCYANATE

ID: 822-06-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:02		
%: 0.3000 - 0.3300	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: The substance ranges are based on information provided by the raw material supplier.				

PAINT TOP COAT

%: 0.0000 - 4.6700

PRODUCT THRESHOLD: 1000 ppm	RESIDUALS AND IMPURITIES CONSIDERED: Yes	MATERIAL TYPE: Other: Paint
RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were not 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 10:31:48			
%: 29.9500 - 30.0500		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: The substance ranges are based on information provided by the raw material supplier.

UNDISCLOSED

ID: Undisclosed

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:50			
%: 23.3200 - 25.5200		GS: BM-3	RC: None	NANO: No	SUBSTANCE ROLE: Filler
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS		
None found			No warnings found on HPD Priority Hazard Lists		

SUBSTANCE NOTES: This material is screened by not disclosed as the per the paint supplier.

CYCLOHEXANONE

ID: 108-94-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:51			
%: 19.5100 - 19.6500		GS: LT-P1	RC: UNK	NANO: No	SUBSTANCE ROLE: Detergent
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 information provided by the raw material supplier.

BUTYL ACETATE

ID: 123-86-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:52		
%: 11.4600 - 11.6600	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: The substance ranges are based on information provided by the raw material supplier.		
METHYL ETHYL KETONE		ID: 78-93-3
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:56
%: 6.0300 - 6.1300	GS: LT-P1	RC: UNK NANO: No SUBSTANCE ROLE: Emulsifier
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: The substance ranges are based on information provided by the raw material supplier.		
TOLUENE		ID: 108-88-3
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:57
%: 4.4500 - 4.5000	GS: BM-1	RC: UNK NANO: No SUBSTANCE ROLE: Viscosity modifier
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: The substance ranges are based on information provided by the raw material supplier.		
XYLENES		ID: 1330-20-7
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:31:57

%: 2.7900 - 2.8500		GS: BM-1	RC: UNK	NANO: No	SUBSTANCE ROLE: Detergent
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: The substance ranges are based on information provided by the raw material supplier.					

ETHYLBENZENE

ID: 100-41-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2022-04-08 10:32:01			
%: 0.4900 - 0.5100		GS: BM-1	RC: UNK	NANO: No	SUBSTANCE ROLE: Binder
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: The substance ranges are based on information provided by the raw material supplier.					

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	ISSUE DATE: 2022-03-22	EXPIRY DATE: 2024-03-22	CERTIFIER OR LAB: N/A
APPLICABLE FACILITIES: N/A			
CERTIFICATE URL:			
CERTIFICATION AND COMPLIANCE NOTES: VOC testing is not applicable in this product			
OTHER		UL Certificate of Compliance	
CERTIFYING PARTY: Third Party	ISSUE DATE: 2014-03-14	EXPIRY DATE: 2023-03-14	CERTIFIER OR LAB: UL
APPLICABLE FACILITIES: All			
CERTIFICATE URL:			
https://vetrotech.showpad.com/share/0DtpAJGbt4N8qTTEoWAr1			
CERTIFICATION AND COMPLIANCE NOTES: Impact and Storm Resistance			

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.

CONTRAFLAM 60, 90, AND 120	HPD URL: https://www.greenliteglass.com/dat/files/46.pdf
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:	
No other condition recommended or required.	

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.

MANUFACTURER INFORMATION

MANUFACTURER: Saint Gobain
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Auburn WA 98001, USA
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The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

KEY

Hazard Types

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

GreenScreen (GS)

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

Recycled Types

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

Other Terms:

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

Inventory Methods:

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

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

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

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

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

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

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