

CLASSIFICATION: 08 30 00 Specialty Doors and Frames

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

- Nested Materials Method
- Basic Method

Threshold Disclosed Per

- Material
- Product

Threshold level

- 100 ppm
- 1,000 ppm
- Per GHS SDS
- Per OSHA MSDS
- Other

Residuals/Impurities

Residuals/Impurities
Considered in 8 of 11 Materials

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

Are All Substances Above the Threshold Indicated?

- Characterized** Yes No
Percent Weight and Role Provided?

- Screened** Yes No
Using Priority Hazard Lists with Results Disclosed?

- Identified** Yes No
Name and Identifier Provided?

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

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

Contents highest concern GreenScreen Benchmark or List translator Score ... BM-1
 Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Manufacturer has opted for the nested content inventory display - materials list percentages present in the final product and substances list percentages present in their respective material. 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.

SILICON LT-UNK PHOSPHORUS BM-2 | PHY | MAM BORON LT-UNK
SULFUR LT-UNK | SKI] PUTTY [UNKNOWN Not Screened STYRENE BM-1
| RES | CAN | END | SKI | EYE | DEL | MAM | MUL | REP TITANIUM DIOXIDE
LT-1 | CAN | END TRIZINC BIS(ORTHOPHOSPHATE) LT-P1 | AQU | MUL
1,2,3,6-TETRAHYDROPHTHALIC ACID ANHYDRIDE LT-UNK | SKI | EYE |
RES] PAINT PRIMER [UNKNOWN Not Screened TITANIUM DIOXIDE LT-1 |
CAN | END BUTYL ACETATE LT-UNK METHYL N-AMYL KETONE BM-U
ZINC OXIDE BM-1 | RES | AQU | MUL] 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 UNKNOWN Not Screened
CYCLOHEXANONE LT-P1 | END | CAN BUTYL ACETATE LT-UNK METHYL
ETHYL KETONE LT-P1 | PHY | EYE | END TOLUENE LT-1 | DEL | REP | PHY |
MAM | SKI | END | MUL XYLENES BM-1 | SKI | END | MUL | REP
ETHYLBENZENE BM-2 | CAN | PHY | MAM | SKI | REP]

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

No pre-checks completed or disclosed.

Third Party Verified?

- Yes
 No

PREPARER: Self-Prepared

VERIFIER:
VERIFICATION #:

SCREENING DATE: 2018-11-30

PUBLISHED DATE: 2018-12-03

EXPIRY DATE: 2021-11-30



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 2.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-standard

HOT ROLLED STEEL

#: 56.6900

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

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:

IRON

ID: 7439-89-6

#: 99.4330 - 100.0000	GS: LT-P1	RC: UNK	NANO: No	ROLE: Alloy ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CARBON

ID: 7440-44-0

#: 0.0000 - 0.0660	GS: LT-UNK	RC: UNK	NANO: No	ROLE: Alloy ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MANGANESE

ID: 7439-96-5

#: 0.0000 - 0.3300	GS: LT-P1	RC: UNK	NANO: No	ROLE: Alloy ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SILICON

ID: 7440-21-3

#: **0.0000 - 0.0120** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Alloy ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

PHOSPHORUS

ID: 7723-14-0

#: **0.0000 - 0.0130** GS: **BM-2** RC: **UNK** NANO: **No** ROLE: **Alloy ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H228 - Flammable solid

MAMMALIAN

US EPA - EPCRA Extremely Hazardous Substances

Extremely Hazardous Substances

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SULFUR

ID: 7704-34-9

#: **0.0000 - 0.0060** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Alloy ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

SKIN IRRITATION

EU - GHS (H-Statements)

H315 - Causes skin irritation

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NITROGEN

ID: 7727-37-9

#: **0.0000 - 0.0360** GS: **NoGS** RC: **UNK** NANO: **No** ROLE: **Alloy ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

3003-H14 ALUMINUM

ID: 7429-90-5

#: **0.0000 - 0.0320** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Alloy ingredient**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H228 - Flammable solid
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H261 - In contact with water releases flammable gases
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES: Substance ranges based on alloy composition.

TITANIUM

ID: 7440-32-6

#: **0.0000 - 0.0250** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Alloy ingredient**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
None Found	No warnings found on HPD Priority lists	

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CHROMIUM

ID: 7440-47-3

#: **0.0000 - 0.0270** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Alloy ingredient**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NICKEL

ID: 7440-02-0

#: **0.0000 - 0.0290** GS: **LT-1** RC: **UNK** NANO: **No** ROLE: **Alloy ingredient**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	IARC	Group 2B - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen

CANCER	US NIH - Report on Carcinogens	Known to be a human Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
ORGAN TOXICANT	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: Substance ranges based on alloy composition.

COPPER

ID: 7440-50-8

#: 0.0000 - 0.0260 GS: LT-UNK RC: UNK NANO: No ROLE: Alloy ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NIOBIUM

ID: 7440-03-1

#: 0.0000 - 0.0001 GS: LT-UNK RC: UNK NANO: No ROLE: Alloy ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

BORON

ID: 7440-42-8

#: 0.0000 - 0.0001 GS: LT-UNK RC: UNK NANO: No ROLE: Alloy ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

VANADIUM

ID: 7440-62-2

#: 0.0000 - 0.0010

GS: LT-1

RC: UNK

NANO: No

ROLE: Alloy ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 3 - Severe Hazard to Waters

CANCER

MAK

Carcinogen Group 2 - Considered to be carcinogenic for man

GENE MUTATION

MAK

Germ Cell Mutagen 2

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MOLYBDENUM

ID: 7439-98-7

#: 0.0000 - 0.0040

GS: LT-UNK

RC: UNK

NANO: No

ROLE: Alloy ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

GASKET 2

#: 13.8000

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

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: None

CARBON BLACK

ID: 1333-86-4

#: 30.0000 - 40.0000

GS: LT-1

RC: UNK

NANO: No

ROLE: Filler

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

US CDC - Occupational Carcinogens

Occupational Carcinogen

CANCER

CA EPA - Prop 65

Carcinogen - specific to chemical form or exposure route

CANCER

IARC

Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources

CANCER

MAK

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

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

ETHYLENE/PROPYLENE/DIENE TERPOLYMER (EPDM)

ID: 25038-36-2

%: 25.0000 - 35.0000	GS: LT-UNK	RC: UNK	NANO: No	ROLE: Gasket Ingredient
HAZARDS:	AGENCY(IES) WITH WARNINGS:			
None Found	No warnings found on HPD Priority lists			
SUBSTANCE NOTES: Substance ranges based on supplier documentation.				

LIMESTONE, CALCIUM CARBONATE ID: **1317-65-3**

%: 10.0000 - 20.0000	GS: LT-UNK	RC: UNK	NANO: No	ROLE: Inactive Filler
HAZARDS:	AGENCY(IES) WITH WARNINGS:			
None Found	No warnings found on HPD Priority lists			
SUBSTANCE NOTES: Substance ranges based on supplier documentation.				

ACTIVE DICUMYL PEROXIDE ID: **80-43-3**

%: 1.0000 - 3.0000	GS: LT-P1	RC: UNK	NANO: No	ROLE: Curing Agent
HAZARDS:	AGENCY(IES) WITH WARNINGS:			
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced		
CHRON AQUATIC	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects		
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H242 - Heating may cause a fire		
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation		
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation		
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters		
SUBSTANCE NOTES: Substance ranges based on supplier documentation.				

CALCIUM OXIDE ID: **1305-78-8**

%: 0.5000 - 2.0000	GS: LT-P1	RC: UNK	NANO: No	ROLE: Water Absorbent
HAZARDS:	AGENCY(IES) WITH WARNINGS:			
None Found	No warnings found on HPD Priority lists			
SUBSTANCE NOTES: Substance ranges based on supplier documentation.				

RESIDUAL OILS, PETROLEUM, HYDROTREATED ID: **64742-57-0**

%: 0.0000 - 25.0000	GS: LT-1	RC: UNK	NANO: No	ROLE: Gasket Ingredient
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HAZARDS:	AGENCY(IES) WITH WARNINGS:	
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans
CANCER	EU - GHS (H-Statements)	H350 - May cause cancer
CANCER	EU - REACH Annex XVII CMRs	Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
CANCER	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
CANCER	Australia - GHS	H350 - May cause cancer

SUBSTANCE NOTES: Substance ranges based on supplier documentation. Purified and free of PAH, therefore classified as non-dangerous (DMSO-extract below 3 %wt).

HYDROTREATED HEAVY PARAFFINIC PETROLEUM DISTILLATES (MINERAL OIL)

ID: 64742-54-7

#: 0.0000 - 25.0000 GS: LT-1 RC: UNK NANO: No ROLE: Gasket Ingredient

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
CANCER	EU - GHS (H-Statements)	H350 - May cause cancer
CANCER	EU - REACH Annex XVII CMRs	Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
CANCER	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
CANCER	Australia - GHS	H350 - May cause cancer

SUBSTANCE NOTES: Substance ranges based on supplier documentation. Purified and free of PAH, therefore classified as non-dangerous (DMSO-extract below 3 %wt).

PRESSURE PLATE

#: 12.4100

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

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:

IRON

ID: 7439-89-6

#: 71.5200 - 100.0000 GS: LT-P1 RC: UNK NANO: No ROLE: Alloy Ingredient

HAZARDS: AGENCY(IES) WITH WARNINGS:

ENDOCRINE TEDX - Potential Endocrine Disruptors Potential Endocrine Disruptor

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CARBON

ID: 7440-44-0

#: 0.0000 - 0.0200 GS: LT-UNK RC: UNK NANO: No ROLE: Alloy Ingredient

HAZARDS: AGENCY(IES) WITH WARNINGS:

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SILICON

ID: 7440-21-3

#: 0.0000 - 0.4000 GS: LT-UNK RC: UNK NANO: No ROLE: Alloy Ingredient

HAZARDS: AGENCY(IES) WITH WARNINGS:

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MANGANESE

ID: 7439-96-5

#: 0.0000 - 1.5800 GS: LT-P1 RC: UNK NANO: No ROLE: Alloy Ingredient

HAZARDS: AGENCY(IES) WITH WARNINGS:

ENDOCRINE TEDX - Potential Endocrine Disruptors Potential Endocrine Disruptor

MULTIPLE German FEA - Substances Hazardous to Waters Class 2 - Hazard to Waters

REPRODUCTIVE Japan - GHS Toxic to reproduction - Category 1B

SUBSTANCE NOTES: Substance ranges based on alloy composition.

PHOSPHORUS

ID: 7723-14-0

#: 0.0000 - 0.0340 GS: BM-2 RC: UNK NANO: No ROLE: Alloy Ingredient

HAZARDS: AGENCY(IES) WITH WARNINGS:

PHYSICAL HAZARD (REACTIVE) EU - GHS (H-Statements) H228 - Flammable solid

MAMMALIAN US EPA - EPCRA Extremely Hazardous Substances Extremely Hazardous Substances

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SULFUR

ID: 7704-34-9

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

HAZARDS:

AGENCY(IES) WITH WARNINGS:

SKIN IRRITATION

EU - GHS (H-Statements)

H315 - Causes skin irritation

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CHROMIUM

ID: 7440-47-3

%: **0.0000 - 18.3000** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Alloy Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (Rs) - sensitizer-induced

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SKIN SENSITIZE

MAK

Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NICKEL

ID: 7440-02-0

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

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (Rs) - sensitizer-induced

CANCER

IARC

Group 1 - Agent is Carcinogenic to humans

CANCER

IARC

Group 2B - Possibly carcinogenic to humans

CANCER

CA EPA - Prop 65

Carcinogen

CANCER

US CDC - Occupational Carcinogens

Occupational Carcinogen

CANCER

US NIH - Report on Carcinogens

Known to be a human Carcinogen

CANCER

US NIH - Report on Carcinogens

Reasonably Anticipated to be Human Carcinogen

SKIN SENSITIZE

EU - GHS (H-Statements)

H317 - May cause an allergic skin reaction

CANCER

EU - GHS (H-Statements)

H351 - Suspected of causing cancer

ORGAN TOXICANT

EU - GHS (H-Statements)

H372 - Causes damage to organs through prolonged or repeated exposure

MULTIPLE

German FEA - Substances Hazardous to

Class 2 - Hazard to Waters

Waters

CANCER

MAK

Carcinogen Group 1 - Substances that cause cancer in man

RESPIRATORY

MAK

Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NITROGEN

ID: 7727-37-9

#: 0.0000 - 0.0450

GS: NoGS

RC: UNK

NANO: No

ROLE: Alloy Ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

WELDING WIRE

#: 6.7000

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

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:

IRON

ID: 7439-89-6

#: 80.0000 - 100.0000

GS: LT-P1

RC: UNK

NANO: No

ROLE: Welding Wire Ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CHROMIUM

ID: 7440-47-3

#: 0.0000 - 10.0000

GS: LT-P1

RC: UNK

NANO: No

ROLE: Welding Wire Ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (Rs) - sensitizer-induced

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SKIN SENSITIZE

MAK

Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: Substance ranges based on alloy composition.

COPPER

ID: 7440-50-8

#: **0.0000 - 1.0000** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Welding Wire Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MANGANESE

ID: 7439-96-5

#: **0.0000 - 3.0000** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Welding Wire Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CARBON

ID: 7440-44-0

#: **0.0000 - 1.5000** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Welding Wire Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MOLYBDENUM

ID: 7439-98-7

#: **0.0000 - 4.0000** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Welding Wire Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

VANADIUM

ID: 7440-62-2

#: **0.0000 - 1.0000** GS: **LT-1** RC: **UNK** NANO: **No** ROLE: **Welding Wire Ingredient**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
GENE MUTATION	MAK	Germ Cell Mutagen 2

SUBSTANCE NOTES: Substance ranges based on alloy composition.

TITANIUM

ID: 7440-32-6

#: 0.0000 - 1.0000 GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Welding Wire Ingredient**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
None Found	No warnings found on HPD Priority lists	

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NICKEL

ID: 7440-02-0

#: 0.0000 - 3.0000 GS: **LT-1** RC: **UNK** NANO: **No** ROLE: **Welding Wire Ingredient**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	IARC	Group 2B - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Known to be a human Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
ORGAN TOXICANT	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SILICON

ID: 7440-21-3

#: **0.0000 - 1.0000** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Welding Wire Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

COVER CAP

#: **4.2900**

HPD URL:

PRODUCT THRESHOLD: **1000 ppm**

RESIDUALS AND IMPURITIES CONSIDERED: **Yes**

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:

3003-H14 ALUMINUM

ID: 7429-90-5

#: **98.0000 - 99.2500** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Alloy Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (Rs) - sensitizer-induced

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H228 - Flammable solid

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H250 - Catches fire spontaneously if exposed to air

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H261 - In contact with water releases flammable gases

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MAGNESIUM

ID: 7439-95-4

#: **0.3500 - 0.6000** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Alloy Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H250 - Catches fire spontaneously if exposed to air

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H260 - In contact with water releases flammable gases which may ignite spontaneously

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SILICON

ID: 7440-21-3

%: 0.3000 - 0.6000	GS: LT-UNK	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

IRON

ID: 7439-89-6

%: 0.1000 - 0.3000	GS: LT-P1	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES: Substance ranges based on alloy composition.

COPPER

ID: 7440-50-8

%: 0.0000 - 0.1000	GS: LT-UNK	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

MANGANESE

ID: 7439-96-5

%: 0.0000 - 0.1000	GS: LT-P1	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CHROMIUM

ID: 7440-47-3

%: 0.0000 - 0.0500	GS: LT-P1	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:	AGENCY(IES) WITH WARNINGS:	
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: Substance ranges based on alloy composition.

ZINC ID: 7440-66-6

%: **0.0000 - 0.1500** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Alloy Ingredient**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H260 - In contact with water releases flammable gases which may ignite spontaneously
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters

SUBSTANCE NOTES: Substance ranges based on alloy composition.

TITANIUM ID: 7440-32-6

%: **0.0000 - 0.1000** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Alloy Ingredient**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
None Found	No warnings found on HPD Priority lists	

SUBSTANCE NOTES: Substance ranges based on alloy composition.

STAINLESS STEEL %: 1.1600 HPD URL:

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: **Yes**

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:

IRON ID: 7439-89-6

%: **67.1170 - 100.0000**

GS: **LT-P1**

RC: **UNK**

NANO: **No**

ROLE: **Alloy Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES: **Substance ranges based on alloy composition.**

CARBON

ID: **7440-44-0**

%: **0.0000 - 0.0400**

GS: **LT-UNK**

RC: **UNK**

NANO: **No**

ROLE: **Alloy Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: **Substance ranges based on alloy composition.**

SILICON

ID: **7440-21-3**

%: **0.0000 - 0.5000**

GS: **LT-UNK**

RC: **UNK**

NANO: **No**

ROLE: **Alloy Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: **Substance ranges based on alloy composition.**

MANGANESE

ID: **7439-96-5**

%: **0.0000 - 1.2100**

GS: **LT-P1**

RC: **UNK**

NANO: **No**

ROLE: **Alloy Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

SUBSTANCE NOTES: **Substance ranges based on alloy composition.**

PHOSPHORUS

ID: **7723-14-0**

%: **0.0000 - 0.0320**

GS: **BM-2**

RC: **UNK**

NANO: **No**

ROLE: **Alloy Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H228 - Flammable solid

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SULFUR

ID: 7704-34-9

%: 0.0000 - 0.0010	GS: LT-UNK	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

SKIN IRRITATION

EU - GHS (H-Statements)

H315 - Causes skin irritation

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CHROMIUM

ID: 7440-47-3

%: 0.0000 - 18.2000	GS: LT-P1	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (Rs) - sensitizer-induced

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SKIN SENSITIZE

MAK

Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NICKEL

ID: 7440-02-0

%: 0.0000 - 8.1000	GS: LT-1	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (Rs) - sensitizer-induced

CANCER

IARC

Group 1 - Agent is Carcinogenic to humans

CANCER

IARC

Group 2B - Possibly carcinogenic to humans

CANCER

CA EPA - Prop 65

Carcinogen

CANCER

US CDC - Occupational Carcinogens

Occupational Carcinogen

CANCER

US NIH - Report on Carcinogens

Known to be a human Carcinogen

CANCER

US NIH - Report on Carcinogens

Reasonably Anticipated to be Human Carcinogen

SKIN SENSITIZE

EU - GHS (H-Statements)

H317 - May cause an allergic skin reaction

CANCER

EU - GHS (H-Statements)

H351 - Suspected of causing cancer

ORGAN TOXICANT

EU - GHS (H-Statements)

H372 - Causes damage to organs through prolonged or

repeated exposure

MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NITROGEN

ID: 7727-37-9

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

HAZARDS: AGENCY(IES) WITH WARNINGS:

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SCREWS

%: **0.1900**

HPD URL:

PRODUCT THRESHOLD: **1000 ppm**

RESIDUALS AND IMPURITIES CONSIDERED: **Yes**

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:

IRON

ID: 7439-89-6

%: **70.0620 - 98.8040** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Alloy Ingredient**

HAZARDS: AGENCY(IES) WITH WARNINGS:

ENDOCRINE TEDX - Potential Endocrine Disruptors Potential Endocrine Disruptor

SUBSTANCE NOTES: Substance ranges based on alloy composition.

NICKEL

ID: 7440-02-0

%: **11.1200** GS: **LT-1** RC: **UNK** NANO: **No** ROLE: **Alloy Ingredient**

HAZARDS: AGENCY(IES) WITH WARNINGS:

RESPIRATORY AOEC - Asthmagens Asthmagen (Rs) - sensitizer-induced

CANCER IARC Group 1 - Agent is Carcinogenic to humans

CANCER	IARC	Group 2B - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Known to be a human Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
ORGAN TOXICANT	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES:

MANGANESE

ID: 7439-96-5

#: **0.8000 - 0.8490** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Alloy Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1B

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CHROMIUM

ID: 7440-47-3

#: **0.0740 - 17.9600** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Alloy Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY	AOEC - Asthmagens	Asthmagens (Rs) - sensitizer-induced
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: Substance ranges based on alloy composition.

CARBON

ID: 7440-44-0

%: 0.0150 - 0.1670	GS: LT-UNK	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

SILICON

ID: 7440-21-3

%: 0.0150 - 0.0840	GS: LT-UNK	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substance ranges based on alloy composition.

PHOSPHORUS

ID: 7723-14-0

%: 0.0090 - 0.0270	GS: BM-2	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H228 - Flammable solid

MAMMALIAN

US EPA - EPCRA Extremely Hazardous Substances

Extremely Hazardous Substances

SUBSTANCE NOTES: Substance ranges based on alloy composition.

BORON

ID: 7440-42-8

%: 0.0030	GS: LT-UNK	RC: None	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

SULFUR

ID: 7704-34-9

%: 0.0010 - 0.0100	GS: LT-UNK	RC: UNK	NANO: No	ROLE: Alloy Ingredient
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

SKIN IRRITATION

EU - GHS (H-Statements)

H315 - Causes skin irritation

SUBSTANCE NOTES: Substance ranges based on alloy composition.

PUTTY

%: 0.0900

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

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:

UNKNOWN

ID: **Unknown**

%: **62.0000 - 88.0000** GS: **Not Screened** RC: **UNK** NANO: **No** ROLE: **Putty Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substances not required to be reported on SDS and considered proprietary to supplier. Substance ranges based on supplier documentation.

STYRENE

ID: **100-42-5**

%: **10.0000 - 30.0000** GS: **BM-1** RC: **UNK** NANO: **No** ROLE: **Putty Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY	AOEC - Asthmagens	Asthmagens (Rs) - sensitizer-induced
CANCER	IARC	Group 2A - Agent is probably Carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
ENDOCRINE	EU - Priority Endocrine Disruptors	Category 1 - In vivo evidence of Endocrine Disruption Activity
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation
DEVELOPMENTAL	EU - GHS (H-Statements)	H361d - Suspected of damaging the unborn child
ORGAN TOXICANT	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
ENDOCRINE	ChemSec - SIN List	Endocrine Disruption
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 5 - Genotoxic carcinogen with very

slight risk under MAK/BAT levels

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

TITANIUM DIOXIDE

ID: 13463-67-7

#: 1.0000 - 5.0000

GS: LT-1

RC: UNK

NANO: No

ROLE: Putty Ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

US CDC - Occupational Carcinogens

Occupational Carcinogen

CANCER

CA EPA - Prop 65

Carcinogen - specific to chemical form or exposure route

CANCER

IARC

Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

CANCER

MAK

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

CANCER

MAK

Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

TRIZINC BIS(ORTHOPHOSPHATE)

ID: 7779-90-0

#: 0.5000 - 1.5000

GS: LT-P1

RC: UNK

NANO: No

ROLE: Putty Ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ACUTE AQUATIC

EU - GHS (H-Statements)

H400 - Very toxic to aquatic life

CHRON AQUATIC

EU - GHS (H-Statements)

H410 - Very toxic to aquatic life with long lasting effects

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

1,2,3,6-TETRAHYDROPHTHALIC ACID ANHYDRIDE

ID: 85-43-8

#: 0.5000 - 1.5000

GS: LT-UNK

RC: UNK

NANO: No

ROLE: Putty Ingredient

HAZARDS:

AGENCY(IES) WITH WARNINGS:

SKIN SENSITIZE

EU - GHS (H-Statements)

H317 - May cause an allergic skin reaction

EYE IRRITATION

EU - GHS (H-Statements)

H318 - Causes serious eye damage

RESPIRATORY

EU - GHS (H-Statements)

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

SUBSTANCE NOTES: Substance ranges based on supplier documentation.

PAINT PRIMER

%: 0.0000 - 4.6700

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

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:

UNKNOWN

ID: **Unknown**

%: 49.9800 GS: **Not Screened** RC: **None** NANO: **No** ROLE: **Primer Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Substances not required to be reported on SDS and considered proprietary to supplier.

TITANIUM DIOXIDE

ID: **13463-67-7**

%: 20.6200 GS: **LT-1** RC: **UNK** NANO: **No** ROLE: **Primer ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

US CDC - Occupational Carcinogens

Occupational Carcinogen

CANCER

CA EPA - Prop 65

Carcinogen - specific to chemical form or exposure route

CANCER

IARC

Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

CANCER

MAK

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

CANCER

MAK

Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SUBSTANCE NOTES:

BUTYL ACETATE

ID: **123-86-4**

%: 18.4600 GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Primer ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

METHYL N-AMYL KETONE

ID: 110-43-0

#: **8.4000** GS: **BM-U** RC: **UNK** NANO: **No** ROLE: **Primer ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

ZINC OXIDE

ID: 1314-13-2

#: **2.5400** GS: **BM-1** RC: **UNK** NANO: **No** ROLE: **Primer ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (Rs) - sensitizer-induced

ACUTE AQUATIC

EU - GHS (H-Statements)

H400 - Very toxic to aquatic life

CHRON AQUATIC

EU - GHS (H-Statements)

H410 - Very toxic to aquatic life with long lasting effects

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

SUBSTANCE NOTES:

PAINT CATALYST

#: **0.0000 - 4.6700**

HPD URL:

PRODUCT THRESHOLD: **1000 ppm**

RESIDUALS AND IMPURITIES CONSIDERED: **Yes**

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:

HEXAMETHYLENE DIISOCYANATE HOMOPOLYMER (HDI HOMOPOLYMER)

ID: 28182-81-2

#: **74.7000** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Catalyst Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

BUTYL ACETATE

ID: 123-86-4

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

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

1,6-HEXAMETHYLENE DIISOCYANATE

ID: 822-06-0

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

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY	AOEC - Asthmagens	Asthmagen (G) - generally accepted
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation
MAMMALIAN	EU - GHS (H-Statements)	H331 - Toxic if inhaled
RESPIRATORY	EU - GHS (H-Statements)	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES:

PAINT TOP COAT

%: 0.0000 - 4.6700

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

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:

TITANIUM DIOXIDE

ID: 13463-67-7

%: **29.9500** GS: **LT-1** RC: **UNK** NANO: **No** ROLE: **Top Coat Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from

occupational sources

ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CANCER	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SUBSTANCE NOTES:

UNKNOWN

ID: **Unknown**

%: **25.3200** GS: **Not Screened** RC: **UNK** NANO: **No** ROLE: **Top Coat Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: **Substances not required to be reported on SDS and considered proprietary to supplier.**

CYCLOHEXANONE

ID: **108-94-1**

%: **19.5100** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Top Coat Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES:

BUTYL ACETATE

ID: **123-86-4**

%: **11.4600** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Top Coat Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

METHYL ETHYL KETONE

ID: **78-93-3**

%: **6.0300** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Top Coat Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

PHYSICAL HAZARD (REACTIVE) EU - GHS (H-Statements) H225 - Highly flammable liquid and vapour

EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES:

TOLUENE

ID: 108-88-3

#: **4.4500** GS: **LT-1** RC: **UNK** NANO: **No** ROLE: **Top Coat Ingredient**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
DEVELOPMENTAL	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Female
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H225 - Highly flammable liquid and vapour
MAMMALIAN	EU - GHS (H-Statements)	H304 - May be fatal if swallowed and enters airways
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
DEVELOPMENTAL	EU - GHS (H-Statements)	H361d - Suspected of damaging the unborn child
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1A

SUBSTANCE NOTES:

XYLENES

ID: 1330-20-7

#: **2.7900** GS: **BM-1** RC: **UNK** NANO: **No** ROLE: **Top Coat Ingredient**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1B

SUBSTANCE NOTES:

ETHYLBENZENE

ID: 100-41-4

%: **0.4900**

GS: **BM-2**

RC: **UNK**

NANO: **No**

ROLE: **Top Coat Ingredient**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

IARC

Group 2B - Possibly carcinogenic to humans

CANCER

CA EPA - Prop 65

Carcinogen

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H225 - Highly flammable liquid and vapour

MAMMALIAN

EU - GHS (H-Statements)

H304 - May be fatal if swallowed and enters airways

CANCER

MAK

Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SKIN SENSITIZE

MAK

Sensitizing Substance Sh - Danger of skin sensitization

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

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**

ISSUE DATE: **2018-**

EXPIRY DATE:

CERTIFIER OR LAB: **None.**

APPLICABLE FACILITIES: **All.**

01-01

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES:

Section 4: Accessories

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

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

This Health Product Declaration was prepared by Sustainable Solutions Corporation of Royersford, Pennsylvania on behalf of Vetrotech.



MANUFACTURER INFORMATION

MANUFACTURER: **Saint Gobain**

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KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet

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

Hazard Types

AQU Aquatic toxicity

CAN Cancer

DEV Developmental toxicity

END Endocrine activity

EYE Eye irritation/corrosivity

GEN Gene mutation

GLO Global warming

MAM Mammalian/systemic/organ toxicity

MUL Multiple hazards

NEU Neurotoxicity

OZO Ozone depletion

PBT Persistent Bioaccumulative Toxic

PHY Physical Hazard (reactive)

REP Reproductive toxicity

RES Respiratory sensitization

SKI Skin sensitization/irritation/corrosivity

LAN Land Toxicity

NF Not found on Priority Hazard Lists

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 (insufficient data to benchmark)

LT-P1 List Translator Possible Benchmark 1

LT-1 List Translator Likely Benchmark 1

LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)

NoGS Unknown (no data on List Translator Lists)

Recycled Types

PreC Preconsumer (Post-Industrial)

PostC Postconsumer

Both Both Preconsumer and Postconsumer

Unk Inclusion of recycled content is unknown

None Does not include recycled content

Other Terms

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.