

CLASSIFICATION: 08 70 00

PRODUCT DESCRIPTION: Gasketing products are designed to seal the perimeter of a door. They are available in a variety of material options. Material options include thermo-plastic vulcanizates (TPV), polypropylene pile, ethylene-propylene- diene-monomer (EPDM), vinyl, silicone, neoprene, nylon and HDPE. Additionally, metal retainers can be used as part of the gasket. Metal options for gasketing include aluminum alloy, architectural bronze, brass, and stainless steel (Type 304). This HPD serves to disclose the chemical ingredients of all product options provided by NGP. For HPDs of specific configurations and SKUs, please contact NGP using the contact information listed at the end of this document.

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 0 of 14 Materials

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

All Substances Above the Threshold Indicated Are:

Characterized  Yes Ex/SC  Yes  No  
% weight and role provided for all substances.

Screened  Yes Ex/SC  Yes  No  
All substances screened using Priority Hazard Lists with results disclosed.

Identified  Yes Ex/SC  Yes  No  
One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.

CONTENT IN DESCENDING ORDER OF QUANTITY

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

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

ALUMINUM COMPONENTS [ ALUMINUM (PRIMARY CASRN IS 7429-90-5) LT-P1 | RES | PHY | END ZINC LT-P1 | AQU | PHY | END | MUL MANGANESE LT-P1 | END | MUL | REP MAGNESIUM LT-UNK | PHY CHROMIUM LT-P1 | RES | END | SKI ] STEEL COMPONENTS [ IRON LT-P1 | END MANGANESE LT-P1 | END | MUL | REP COPPER LT-UNK ] STAINLESS STEEL COMPONENTS [ IRON LT-P1 | END CHROMIUM LT-P1 | RES | END | SKI NICKEL LT-1 | RES | CAN | SKI | MAM | MUL MANGANESE LT-P1 | END | MUL | REP NITROGEN NoGS SILICON LT-UNK COPPER LT-UNK MOLYBDENUM LT-UNK ] POLYPROPYLENE COMPONENTS [ POLYPROPYLENE LT-UNK ] PVC COMPONENTS [ UNDISCLOSED LT-P1 | MUL UNDISCLOSED LT-UNK UNDISCLOSED LT-1 | CAN UNDISCLOSED LT-1 | CAN | DEL | END | REP | MUL POLYVINYL CHLORIDE (PVC) LT-P1 | RES UNDISCLOSED LT-UNK UNDISCLOSED LT-P1 UNDISCLOSED LT-P1 | END UNDISCLOSED BM-1 | CAN | END | DEL | MUL | REP UNDISCLOSED BM-3 UNDISCLOSED LT-UNK UNDISCLOSED LT-P1 | CAN | END UNDISCLOSED LT-P1 | SKI | DEL | MAM | MUL UNDISCLOSED LT-UNK UNDISCLOSED LT-UNK UNDISCLOSED LT-1 | CAN | MUL UNDISCLOSED LT-P1 UNDISCLOSED LT-P1 | MUL UNDISCLOSED LT-UNK UNDISCLOSED LT-P1 | END | MUL | AQU | SKI | REP | DEL UNDISCLOSED LT-UNK UNDISCLOSED LT-UNK UNDISCLOSED NoGS UNDISCLOSED NoGS ] BRASS COMPONENTS [ COPPER LT-UNK ZINC LT-P1 | AQU | PHY | END | MUL ] NYLON COMPONENTS [ NYLON 6 LT-UNK NYLON 6,6 LT-UNK IRON LT-P1 | END ETHYLENE/PROPYLENE/DIENE TERPOLYMER (EPDM) LT-UNK UNDISCLOSED LT-UNK UNDISCLOSED LT-UNK UNDISCLOSED LT-

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

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

INVENTORY AND SCREENING NOTES:

This HPD considers gaskets of aluminum, steel, stainless steel, bronze, brass, PVC, polypropylene pile, TPV, EPDM, neoprene, silicone, nylon, HDPE. Other than material options, the option of lead lining and most finish options are also included.

UNK UNDISCLOSED LT-UNK CARBON BLACK LT-1 | CAN UNDISCLOSED  
BM-2 | CAN UNDISCLOSED LT-UNK | RES DODECANEDIOIC ACID,  
POLYMER WITH 1,6-HEXANEDIAMINE LT-UNK UNDISCLOSED NoGS  
UNDISCLOSED LT-UNK UNDISCLOSED LT-UNK UNDISCLOSED LT-1 |  
CAN | END SILICON LT-UNK MANGANESE LT-P1 | END | MUL | REP  
CAPROLACTAM LT-UNK | SKI | EYE ALUMINUM (PRIMARY CASRN IS  
7429-90-5) LT-P1 | RES | PHY | END CHROMIUM (III) OXIDE LT-P1 | SKI  
CONTINUOUS FILAMENT GLASS FIBER, NON-RESPIRABLE LT-UNK  
NICKEL LT-1 | RES | CAN | SKI | MAM | MUL ANTIMONY LT-1 | AQU | CAN  
ARSENIC LT-1 | DEL | CAN | PBT | AQU | MAM | END | MUL | GEN  
CHROMIUM LT-P1 | RES | END | SKI ] EPDM AND NEOPRENE  
COMPONENTS [ ETHYLENE-PROPYLENE COPOLYMER LT-UNK  
NEOPRENE LT-UNK CARBON BLACK LT-1 | CAN HYDROTREATED HEAVY  
PARAFFINIC PETROLEUM DISTILLATES (MINERAL OIL) LT-1 | CAN | MUL  
RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED LT-1 | PBT | CAN |  
MUL 3,5-BIS(1,1-DIMETHYLETHYL)-4-HYDROXYBENZENEPROPANOIC  
ACID OCTADECYL ESTER LT-P1 ETHYLENE/PROPYLENE/DIENE  
TERPOLYMER (EPDM) LT-UNK DISTILLATES (PETROLEUM),  
HYDROTREATED (MILD) HEAVY NAPHTHENIC (9CI) LT-1 | PBT | CAN |  
MUL POLYPROPYLENE GLYCOL LT-UNK TALC BM-1 | CAN LIMESTONE,  
CALCIUM CARBONATE LT-UNK TITANIUM DIOXIDE LT-1 | CAN | END  
HIGH-IMPACT POLYSTYRENE LT-UNK CHLORINATED POLYETHYLENE  
(CPE, TYRIN) LT-UNK FUMED SILICA, CRYSTALLINE-FREE LT-P1 | CAN  
1,2-CYCLOHEXANEDICARBOXYLIC ACID, DINONYL ESTER BM-2  
CALCIUM OXIDE LT-P1 1,1'-AZOBIS(FORMAMIDE) LT-UNK | RES ZINC  
OXIDE BM-1 | RES | AQU | MUL SILICA, AMORPHOUS LT-P1 | CAN  
UNDISCLOSED LT-UNK MAGNESIUM OXIDE LT-UNK | CAN ALCOHOLS,  
C16-18, DISTN. RESIDUES LT-UNK KAOLIN CLAY LT-UNK | CAN  
COSMOLINE LT-1 | CAN | MUL POLYETHYLENE GLYCOL LT-UNK  
STEARIC ACID LT-P1 | END SULFUR LT-UNK | SKI  
THIOPEROXYDICARBONIC DIAMIDE (((H2-N)C(S)2-S2), TETRAKIS(2-  
METHYLPROPYL)- NoGS UNDISCLOSED LT-P1 | AQU | SKI | EYE | MUL  
ZINC, DIBUTYLDITHIOPHOSPHATE LT-P1 | MUL (Z)-13-DOCOSENAMIDE  
LT-UNK UNDISCLOSED LT-1 | CAN | AQU | SKI | END | MUL 3,9-  
DICYCLOHEX-3-ENYL-2,4,8,10-TETRAOXASPIRO[5.5]UNDECANE LT-P1 |  
MUL BENZENAMINE, N-PHENYL-, REACTION PRODUCTS WITH 2,4,4-  
TRIMETHYLPENTENE LT-P1 UNDISCLOSED LT-P1 | AQU | SKI | MUL  
FATTY ACIDS, TALLOW, HYDROGENATED, STEARIC ACID FRACTION,  
DISTN. RESIDUES NoGS UNDISCLOSED LT-P1 | MUL PARAFFIN WAXES  
AND HYDROCARBON WAXES, MICROCRYST. LT-UNK UNDISCLOSED LT-  
P1 | END | AQU | SKI | EYE | MUL | GEN SOLVENT-DEWAXED HEAVY  
PARAFFINIC PETROLEUM DISTILLATES LT-1 | CAN | MUL ETHYLENE  
THIOUREA (ETU) LT-1 | CAN | DEL | END | REP | MUL N-(2-  
HYDROXYETHYL)OCTADECANAMIDE LT-P1 | MUL POLYETHYLENE LT-  
UNK UNDISCLOSED LT-UNK SILICA GEL LT-UNK UNDISCLOSED LT-P1 |  
MUL UNDISCLOSED LT-P1 | MUL PARAFFIN LT-UNK UNDISCLOSED LT-  
UNK OLEIC ACID LT-P1 | END DI(2-ETHYLHEXYL)PHTHALATE (DEHP)  
(PRIMARY CASRN) LT-1 | CAN | DEL | END | REP | MUL ] POLYETHYLENE  
COMPONENTS [ POLYETHYLENE LT-UNK ] TPV COMPONENTS [  
UNDISCLOSED LT-1 | CAN UNDISCLOSED LT-1 | CAN | MUL  
UNDISCLOSED LT-1 | CAN | MUL UNDISCLOSED LT-1 | CAN | MUL  
UNDISCLOSED LT-UNK UNDISCLOSED LT-UNK UNDISCLOSED LT-P1 |  
END | MUL UNDISCLOSED BM-4 UNDISCLOSED BM-1 | RES | AQU | MUL  
UNDISCLOSED NoGS ] DENSE SILICONE AND SILICONE COMPONENTS [  
UNDISCLOSED LT-UNK UNDISCLOSED LT-1 | CAN UNDISCLOSED LT-P1 |  
CAN UNDISCLOSED LT-P1 | PBT UNDISCLOSED BM-1 UNDISCLOSED LT-  
P1 | MUL UNDISCLOSED LT-UNK UNDISCLOSED LT-UNK UNDISCLOSED  
BM-1 | END | PBT | MUL | REP UNDISCLOSED BM-2 | CAN UNDISCLOSED  
LT-1 | PBT UNDISCLOSED NoGS UNDISCLOSED NoGS UNDISCLOSED  
NoGS UNDISCLOSED LT-UNK UNDISCLOSED LT-1 | CAN | END  
UNDISCLOSED LT-P1 | CAN UNDISCLOSED LT-P1 | MUL UNDISCLOSED  
BM-1 UNDISCLOSED LT-UNK UNDISCLOSED LT-P1 UNDISCLOSED LT-P1  
| MUL UNDISCLOSED LT-P1 | PBT UNDISCLOSED LT-1 | RES | CAN | GEN  
UNDISCLOSED BM-2 UNDISCLOSED LT-UNK UNDISCLOSED LT-P1 | SKI  
UNDISCLOSED LT-P1 | PBT | MUL | END UNDISCLOSED LT-P1 | RES | AQU  
| PHY | SKI | EYE | MUL UNDISCLOSED LT-P1 | PBT UNDISCLOSED LT-UNK  
UNDISCLOSED LT-UNK UNDISCLOSED LT-1 | DEL | REP | PHY | MAM | SKI  
| END | MUL UNDISCLOSED NoGS ] BRONZE COMPONENTS [ COPPER  
LT-UNK ZINC LT-P1 | AQU | PHY | END | MUL LEAD LT-1 | DEL | CAN | PBT |  
REP | MUL | END | GEN NICKEL LT-1 | RES | CAN | SKI | MAM | MUL  
ALUMINUM (PRIMARY CASRN IS 7429-90-5) LT-P1 | RES | PHY | END  
ARSENIC LT-1 | DEL | CAN | PBT | AQU | MAM | END | MUL | GEN ]  
OPTIONAL LEAD LINING [ LEAD LT-1 | DEL | CAN | PBT | REP | MUL | END |  
GEN ANTIMONY LT-1 | AQU | CAN ] FINISH OPTIONS [ UNDISCLOSED  
NoGS UNDISCLOSED LT-P1 | END BARIUM SULFATE BM-2 | CAN

UNDISCLOSED NoGS TITANIUM DIOXIDE LT-1 | CAN | END  
UNDISCLOSED LT-UNK UNDISCLOSED LT-1 | RES | GEN | MAM | SKI | EYE  
| MUL HYDROTREATED HEAVY PARAFFINIC PETROLEUM DISTILLATES  
(MINERAL OIL) LT-1 | CAN | MUL SOLVENT-DEWAXED HEAVY  
PARAFFINIC PETROLEUM DISTILLATES LT-1 | CAN | MUL ]

### 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: Inherently non- emitting source per LEED®

### 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: 2019-08-20

PUBLISHED DATE: 2019-09-03

EXPIRY DATE: 2022-08-20



## 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 2.1.1, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-1-1-standard](http://www.hpd-collaborative.org/hpd-2-1-1-standard)

### ALUMINUM COMPONENTS

%: 0.00 - 100.00

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

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

OTHER MATERIAL NOTES: This material constitutes the profile of the gasket products and it has alternate materials as disclosed in the HPD.

#### ALUMINUM (PRIMARY CASRN IS 7429-90-5)

ID: 477951-22-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

%: 0.00 - 100.00

GS: LT-P1

RC: UNK

NANO: No

ROLE: Body

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for alloy variation. Due to the commodity nature of aluminum alloy most commercially available aluminum alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

#### ZINC

ID: 7440-66-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

%: 0.00 - 10.00

GS: LT-P1

RC: UNK

NANO: No

ROLE: Body

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for alloy variation. Due to the commodity nature of aluminum alloy most commercially available aluminum alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## MANGANESE

ID: 7439-96-5

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2019-08-20</b>		
%: <b>0.00 - 5.00</b>	GS: <b>LT-P1</b>	RC: <b>UNK</b>	NANO: <b>No</b>	ROLE: <b>Body</b>
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor		
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters		
REPRODUCTIVE	GHS - Japan	Toxic to reproduction - Category 1B [H360]		

SUBSTANCE NOTES: A range is provided to account for alloy variation. Due to the commodity nature of aluminum alloy most commercially available aluminum alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## MAGNESIUM

ID: 7439-95-4

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2019-08-20</b>		
%: <b>0.00 - 5.00</b>	GS: <b>LT-UNK</b>	RC: <b>UNK</b>	NANO: <b>No</b>	ROLE: <b>Body</b>
HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for alloy variation. Due to the commodity nature of aluminum alloy most commercially available aluminum alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## CHROMIUM

ID: 7440-47-3

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 1.00**

GS: **LT-P1**

RC: **UNK**

NANO: **No**

ROLE: **Body**

HAZARD TYPE

AGENCY AND LIST TITLES

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: A range is provided to account for alloy variation. Due to the commodity nature of aluminum alloy most commercially available aluminum alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## STEEL COMPONENTS

#: **0.00**

PRODUCT THRESHOLD: **1000 ppm**

RESIDUALS AND IMPURITIES CONSIDERED: **No**

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

OTHER MATERIAL NOTES: This material is an alternate to aluminum alloy material.

## IRON

ID: 7439-89-6

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 100.00**

GS: **LT-P1**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES: A range is provided to account for alloy variation. Due to the commodity nature of steel most commercially available steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## MANGANESE

ID: 7439-96-5

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 1.00**

GS: **LT-P1**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REPRODUCTIVE	GHS - Japan	Toxic to reproduction - Category 1B [H360]

SUBSTANCE NOTES: A range is provided to account for alloy variation. Due to the commodity nature of steel most commercially available steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## COPPER

ID: 7440-50-8

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

HAZARD SCREENING DATE: **2019-08-20**

?: **0.00 - 1.00**

GS: **LT-UNK**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**

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

SUBSTANCE NOTES: A range is provided to account for alloy variation. Due to the commodity nature of steel most commercially available steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## STAINLESS STEEL COMPONENTS

?: **0.00**

PRODUCT THRESHOLD: **1000 ppm**

RESIDUALS AND IMPURITIES CONSIDERED: **No**

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

OTHER MATERIAL NOTES: This material is an alternate to aluminum alloy material.

## IRON

ID: 7439-89-6

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

HAZARD SCREENING DATE: **2019-08-20**

?: **0.00 - 75.00**

GS: **LT-P1**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**

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

SUBSTANCE NOTES: A range is provided to account for alloy variation. Due to the commodity nature of stainless steel most commercially available stainless steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## CHROMIUM

ID: 7440-47-3

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

HAZARD SCREENING DATE: **2019-08-20**

%: 0.00 - 20.00

GS: LT-P1

RC: UNK

NANO: No

ROLE: Body and Components

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for alloy variation. Due to the commodity nature of stainless steel most commercially available stainless steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

**NICKEL**

ID: 7440-02-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

%: 0.00 - 10.00

GS: LT-1

RC: UNK

NANO: No

ROLE: Body and Components

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for alloy variation. Due to the commodity nature of stainless steel most commercially available stainless steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

**MANGANESE**

ID: 7439-96-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20



%: **0.00 - 5.00**

GS: **LT-P1**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REPRODUCTIVE	GHS - Japan	Toxic to reproduction - Category 1B [H360]

SUBSTANCE NOTES: A range is provided to account for alloy variation. Due to the commodity nature of stainless steel most commercially available stainless steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

### NITROGEN

ID: **7727-37-9**

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

HAZARD SCREENING DATE: **2019-08-20**

%: **0.00 - 1.00**

GS: **NoGS**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**

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

SUBSTANCE NOTES: A range is provided to account for alloy variation. Due to the commodity nature of stainless steel most commercially available stainless steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

### SILICON

ID: **7440-21-3**

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

HAZARD SCREENING DATE: **2019-08-20**

%: **0.00 - 1.00**

GS: **LT-UNK**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**

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

SUBSTANCE NOTES: A range is provided to account for alloy variation. Due to the commodity nature of stainless steel most commercially available stainless steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

### COPPER

ID: **7440-50-8**

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

HAZARD SCREENING DATE: **2019-08-20**

%: **0.00 - 1.00**

GS: **LT-UNK**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**

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

SUBSTANCE NOTES: A range is provided to account for alloy variation. Due to the commodity nature of stainless steel most commercially available stainless steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## MOLYBDENUM

ID: 7439-98-7

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 1.00**

GS: **LT-UNK**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: **A range is provided to account for alloy variation. Due to the commodity nature of stainless steel most commercially available stainless steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.**

## POLYPROLYNENE COMPOENENTS

#: **0.00 - 100.00**

PRODUCT THRESHOLD: **1000 ppm**

RESIDUALS AND IMPURITIES CONSIDERED: **No**

RESIDUALS AND IMPURITIES NOTES: **Residuals and Impurities not considered. Only intentionally added ingredients are presented in this HPD.**

OTHER MATERIAL NOTES: **This material constitutes gasketing parts of gasket material. It has several alternate materials.**

## POLYPROPYLENE

ID: 9003-07-0

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 100.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: **A range is provided to account for variation in product offering.**

## PVC COMPONENTS

#: **0.00**

PRODUCT THRESHOLD: **1000 ppm**

RESIDUALS AND IMPURITIES CONSIDERED: **No**

RESIDUALS AND IMPURITIES NOTES: **Residuals and Impurities not considered. Only intentionally added ingredients are presented in this HPD.**

OTHER MATERIAL NOTES: **This material is an alternate to aluminum alloy material.**

## UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 100.00**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Components and Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2019-08-20</b>		
%: <b>0.00 - 100.00</b>	GS: <b>LT-UNK</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Components and Gasketing Material</b>
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2019-08-20</b>		
%: <b>0.00 - 100.00</b>	GS: <b>LT-1</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Components and Gasketing Material</b>
HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2019-08-20</b>		
%: <b>0.00 - 100.00</b>	GS: <b>LT-1</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Components and Gasketing Material</b>
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
CANCER	US EPA - IRIS Carcinogens	(1986) Group B2 - Probable human Carcinogen		

CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
ENDOCRINE	EU - Priority Endocrine Disruptors	Category 1 - In vivo evidence of Endocrine Disruption Activity
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
REPRODUCTIVE	EU - SVHC Authorisation List	Toxic to reproduction - Banned unless Authorised
ENDOCRINE	OSPAR - Priority PBTs & EDs & equivalent concern	Endocrine Disruptor - Chemical for Priority Action
DEVELOPMENTAL	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Developmental Toxicity
REPRODUCTIVE	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Reproductive Toxicity
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - Action Plan in development
REPRODUCTIVE	EU - GHS (H-Statements)	H360FD - May damage fertility. May damage the unborn child
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 2 - Substances which should be regarded as if they impair fertility or cause Developmental Toxicity in humans
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
REPRODUCTIVE	US EPA - PPT Chemical Action Plans	Reproductive effects
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
ENDOCRINE	EU - SVHC Authorisation List	Equivalent Concern - Candidate List
REPRODUCTIVE	GHS - Korea	Reproductive toxicity - Category 1 [H360 - May damage fertility or the unborn child]
REPRODUCTIVE	GHS - New Zealand	6.8A - Known or presumed human reproductive or developmental toxicants
REPRODUCTIVE	GHS - Japan	Toxic to reproduction - Category 1B
REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1B
REPRODUCTIVE	GHS - Malaysia	H360Fd - May damage fertility. Suspected of damaging the unborn child
CANCER	GHS - Australia	H350 - May cause cancer
REPRODUCTIVE	GHS - Australia	H360Fd - May damage fertility. Suspected of damaging the unborn child

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## POLYVINYL CHLORIDE (PVC)

ID: 9002-86-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 100.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 100.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 100.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 100.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 45.00** GS: **BM-1** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	CA EPA - Prop 65	Carcinogen
ENDOCRINE	EU - Priority Endocrine Disruptors	Category 2 - In vitro evidence of biological activity related to Endocrine Disruption
DEVELOPMENTAL	US NIH - Reproductive & Developmental Monographs	Some Evidence of Adverse Effects - Developmental Toxicity
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - Action Plan in development
ENDOCRINE	ChemSec - SIN List	Endocrine Disruption
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
REPRODUCTIVE	US EPA - PPT Chemical Action Plans	Reproductive effects

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 35.00** GS: **BM-3** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 15.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 10.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	US EPA - IRIS Carcinogens	(1986) Group C - Possible human Carcinogen
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 10.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
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
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 10.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 5.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 5.00** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	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	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**



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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 1.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 1.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	OSPAR - Priority PBTs & EDs & equivalent concern	Endocrine Disruptor - Chemical for Priority Action
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - Action Plan in development
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
SKIN IRRITATION	EU - GHS (H-Statements)	H314 - Causes severe skin burns and eye damage
REPRODUCTIVE	EU - GHS (H-Statements)	H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child
REPRODUCTIVE	US EPA - PPT Chemical Action Plans	Reproductive effects
CHRON AQUATIC	US EPA - PPT Chemical Action Plans	Highly toxic to aquatic organisms
DEVELOPMENTAL	US EPA - PPT Chemical Action Plans	Developmental Effects

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00** GS: **NoGS** RC: **None** NANO: **No** ROLE: **68892-13-7**

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00** GS: **NoGS** RC: **None** NANO: **No** ROLE: **Components and Gasketing Material**

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## BRASS COMPONENTS

%: 0.00 - 2.00

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

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

OTHER MATERIAL NOTES: This material constitutes internal parts in the gasket products.

### COPPER

ID: 7440-50-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

%: 0.00 - 1.50

GS: LT-UNK

RC: UNK

NANO: No

ROLE: Components

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for alloy variation. Due to the commodity nature of copper alloy most commercially available copper alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

### ZINC

ID: 7440-66-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

%: 0.00 - 0.70

GS: LT-P1

RC: UNK

NANO: No

ROLE: Components

HAZARD TYPE

AGENCY AND LIST TITLES

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: A range is provided to account for alloy variation. Due to the commodity nature of copper alloy most commercially available copper alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## NYLON COMPONENTS

%: 0.00

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

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

OTHER MATERIAL NOTES: This material is an alternate to polypropylene pile material.

**NYLON 6**

ID: 25038-54-4

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 75.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is given to account for product variation and to protect the proprietary nature of the formulation.

**NYLON 6,6**

ID: 32131-17-2

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 55.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**IRON**

ID: 7439-89-6

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 50.00**

GS: **LT-P1**

RC: **UNK**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES: A range is provided to account for alloy variation and finish options. Due to the commodity nature of steel most commercially available steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

**ETHYLENE/PROPYLENE/DIENE TERPOLYMER (EPDM)**

ID: 25038-36-2

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 10.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE	AGENCY AND LIST TITLES	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: **A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.**

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **BM-2**

RC: **None**

NANO: **No**

ROLE: **Nylon Brush**

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

SUBSTANCE NOTES: **A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.**

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Nylon Brush**

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

SUBSTANCE NOTES: **A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.**

**DODECANEDIOIC ACID, POLYMER WITH 1,6-HEXANEDIAMINE**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Nylon Brush**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**UNDISCLOSED**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **NoGS** RC: **None** NANO: **No** ROLE: **Nylon Brush**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.  
CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Nylon Brush**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.  
CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Nylon Brush**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.  
CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Nylon Brush**

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## SILICON

ID: 7440-21-3

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-UNK**

RC: **UNK**

NANO: **No**

ROLE: **Nylon Brush**

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

SUBSTANCE NOTES: A range is given to account for alloy variation and product variation. Due to the commodity nature of steel most commercially available steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## MANGANESE

ID: 7439-96-5

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-P1**

RC: **UNK**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REPRODUCTIVE	GHS - Japan	Toxic to reproduction - Category 1B

SUBSTANCE NOTES: A range is given to account for alloy variation and product variation. Due to the commodity nature of steel most commercially available steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.



HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Nylon Brush**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**ALUMINUM (PRIMARY CASRN IS 7429-90-5)**

ID: 477951-22-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Nylon Brush**

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is given to account for alloy variation and product variation. Due to the commodity nature of steel most commercially available steel contains some amount of recycled content. The exact percentage will likely change due to market conditions.

**CHROMIUM (III) OXIDE**

ID: 1308-38-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Nylon Brush**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**CONTINUOUS FILAMENT GLASS FIBER, NON-RESPIRABLE**

ID: 65997-17-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Nylon Brush**

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**NICKEL**

ID: 7440-02-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00**GS: **LT-1**RC: **UNK**NANO: **No**ROLE: **Nylon Brush**

HAZARD TYPE

AGENCY AND LIST TITLES

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 &amp; skin sensitization

SUBSTANCE NOTES: A range is given to account for alloy variation and product variation. Due to the commodity nature of steel most commercially available steel contains some amount of recycled content. The exact percentage will likely change due to market conditions

**ANTIMONY**

ID: 7440-36-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00**GS: **LT-1**RC: **UNK**NANO: **No**ROLE: **Nylon Brush**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CHRON AQUATIC	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man

SUBSTANCE NOTES: A range is given to account for alloy variation and product variation. Due to the commodity nature of steel most commercially available steel contains some amount of recycled content. The exact percentage will likely change due to market conditions

**ARSENIC**

ID: 7440-38-2

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

HAZARD SCREENING DATE: **2019-08-20**

%: **0.00 - 1.00**

GS: **LT-1**

RC: **UNK**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
DEVELOPMENTAL	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
CANCER	US EPA - IRIS Carcinogens	(1986) Group A - Human Carcinogen
CANCER	IARC	Group 1 - Agent is 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
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
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
MAMMALIAN	EU - GHS (H-Statements)	H301 - Toxic if swallowed
MAMMALIAN	EU - GHS (H-Statements)	H331 - Toxic if inhaled
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
MAMMALIAN	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances
CANCER	GHS - Korea	Carcinogenicity - Category 1 [H350 - May cause cancer]
CANCER	GHS - New Zealand	6.7A - Known or presumed human carcinogens
CANCER	GHS - Japan	Carcinogenicity - Category 1A
GENE MUTATION	MAK	Germ Cell Mutagen 3a
CANCER	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is given to account for alloy variation and product variation. Due to the commodity nature of steel most commercially available steel contains some amount of recycled content. The exact percentage will likely change due to market conditions

## CHROMIUM

ID: 7440-47-3

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 1.00**

GS: **LT-P1**

RC: **UNK**

NANO: **No**

ROLE: **Nylon Brush**

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is given to account for alloy variation and product variation. Due to the commodity nature of steel most commercially available steel contains some amount of recycled content. The exact percentage will likely change due to market conditions

## EPDM AND NEOPRENE COMPONENTS

%: 0.00

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

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

OTHER MATERIAL NOTES: This material is an alternate to polypropylene pile material.

### ETHYLENE-PROPYLENE COPOLYMER

ID: 9010-79-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

%: 0.00 - 45.00

GS: LT-UNK

RC: None

NANO: No

ROLE: Gasketing Material

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### NEOPRENE

ID: 9010-98-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

%: 0.00 - 45.00

GS: LT-UNK

RC: None

NANO: No

ROLE: Gasketing Material

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### CARBON BLACK

ID: 1333-86-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

#: 0.00 - 45.00

GS: LT-1

RC: None

NANO: No

ROLE: Gasketing Material

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**HYDROTREATED HEAVY PARAFFINIC PETROLEUM DISTILLATES (MINERAL OIL)**

ID: 64742-54-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

#: 0.00 - 40.00

GS: LT-1

RC: None

NANO: No

ROLE: Gasketing Material

HAZARD TYPE	AGENCY AND LIST TITLES	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	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**RESIDUAL OILS, PETROLEUM, SOLVENT-DEWAXED**

ID: 64742-62-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

#: 0.00 - 40.00

GS: LT-1

RC: None

NANO: No

ROLE: Gasketing Material

HAZARD TYPE	AGENCY AND LIST TITLES	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	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### 3,5-BIS(1,1-DIMETHYLETHYL)-4-HYDROXYBENZENEPROPANOIC ACID OCTADECYL ESTER

ID: 2082-79-3

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 30.00**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### ETHYLENE/PROPYLENE/DIENE TERPOLYMER (EPDM)

ID: 25038-36-2

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 30.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### DISTILLATES (PETROLEUM), HYDROTREATED (MILD) HEAVY NAPHTHENIC (9CI)

ID: 64742-52-5

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 35.00**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	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
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
CANCER	GHS - Japan	Carcinogenicity - Category 1A
CANCER	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## POLYPROPYLENE GLYCOL

ID: 25322-69-4

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 30.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## TALC

ID: 14807-96-6

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 30.00**

GS: **BM-1**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## LIMESTONE, CALCIUM CARBONATE

ID: 1317-65-3



%: **0.00 - 25.00**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**TITANIUM DIOXIDE**ID: **13463-67-7**%: **0.00 - 25.00**GS: **LT-1**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

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: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**HIGH-IMPACT POLYSTYRENE**ID: **9003-55-8**%: **0.00 - 20.00**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**CHLORINATED POLYETHYLENE (CPE, TYRIN)**ID: **64754-90-1**%: **0.00 - 20.00**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### FUMED SILICA, CRYSTALLINE-FREE

ID: 112945-52-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 15.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	GHS - Japan	Carcinogenicity - Category 1A
CANCER	GHS - Australia	H350i - May cause cancer by inhalation

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### 1,2-CYCLOHEXANEDICARBOXYLIC ACID, DINONYL ESTER

ID: 474919-59-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 10.00** GS: **BM-2** RC: **None** NANO: **No** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### CALCIUM OXIDE

ID: 1305-78-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### 1,1'-AZOBIS(FORMAMIDE)

ID: 123-77-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
RESPIRATORY	EU - GHS (H-Statements)	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## ZINC OXIDE

ID: 1314-13-2

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2019-08-20</b>		
%: <b>0.00 - 5.00</b>	GS: <b>BM-1</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Gasketing Material</b>
HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## SILICA, AMORPHOUS

ID: 7631-86-9

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2019-08-20</b>		
%: <b>0.00 - 5.00</b>	GS: <b>LT-P1</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Gasketing Material</b>
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
CANCER	GHS - Japan	Carcinogenicity - Category 1A		
CANCER	GHS - Australia	H350i - May cause cancer by inhalation		

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## UNDISCLOSED

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>		HAZARD SCREENING DATE: <b>2019-08-20</b>		
%: <b>0.00 - 5.00</b>	GS: <b>LT-UNK</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Gasketing Material</b>
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## MAGNESIUM OXIDE

ID: 1309-48-4

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**CANCER**

**MAK**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## ALCOHOLS, C16-18, DISTN. RESIDUES

ID: 68603-17-8

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found**

**No warnings found on HPD Priority Hazard Lists**

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## KAOLIN CLAY

ID: 1332-58-7

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**CANCER**

**MAK**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## COSMOLINE

ID: 8009-03-8

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	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
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
CANCER	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## POLYETHYLENE GLYCOL

ID: 25322-68-3

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## STEARIC ACID

ID: 57-11-4

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## SULFUR

ID: 7704-34-9

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### THIOPEROXYDICARBONIC DIAMIDE ([[H2-N)C(S)]2-S2), TETRAKIS(2-METHYLPROPYL)-

ID: 3064-73-1

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2019-08-20</b>			
%: <b>0.00 - 5.00</b>	GS: <b>NoGS</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Gasketing Material</b>

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### UNDISCLOSED

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2019-08-20</b>			
%: <b>0.00 - 5.00</b>	GS: <b>LT-P1</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Gasketing Material</b>

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### ZINC, DIBUTYLDITHIOPHOSPHATE

ID: 6990-43-8

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2019-08-20</b>			
%: <b>0.00 - 5.00</b>	GS: <b>LT-P1</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Gasketing Material</b>

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### (Z)-13-DOCOSENAMIDE

ID: 112-84-5

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2019-08-20</b>			
%: <b>0.00 - 5.00</b>	GS: <b>LT-UNK</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Gasketing Material</b>

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### UNDISCLOSED

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2019-08-20</b>			
%: <b>0.00 - 5.00</b>	GS: <b>LT-1</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Gasketing Material</b>

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	IARC	Group 2a - Agent is probably Carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
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
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization
CANCER	GHS - Japan	Carcinogenicity - Category 1B

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### 3,9-DICYCLOHEX-3-ENYL-2,4,8,10-TETRAOXASPIRO[5.5]UNDECANE

ID: 6600-31-3

#: **0.00 - 5.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**MULTIPLE**

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### **BENZENAMINE, N-PHENYL-, REACTION PRODUCTS WITH 2,4,4-TRIMETHYLPENTENE**

ID: **68411-46-1**

#: **0.00 - 5.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found**

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### **UNDISCLOSED**

#: **0.00 - 5.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

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

**SKIN SENSITIZE**

EU - GHS (H-Statements)

H317 - May cause an allergic skin reaction

**MULTIPLE**

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

**SKIN SENSITIZE**

MAK

Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### **FATTY ACIDS, TALLOW, HYDROGENATED, STEARIC ACID FRACTION, DISTN. RESIDUES**

ID: **72480-57-0**

#: **0.00 - 5.00** GS: **NoGS** RC: **None** NANO: **No** ROLE: **Gasketing Material**



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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**      GS: **LT-P1**      RC: **None**      NANO: **No**      ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### PARAFFIN WAXES AND HYDROCARBON WAXES, MICROCRYST. ID: 63231-60-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**      GS: **LT-UNK**      RC: **None**      NANO: **No**      ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

### UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**      GS: **LT-P1**      RC: **None**      NANO: **No**      ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	EU - Priority Endocrine Disruptors	Category 1 - In vivo evidence of Endocrine Disruption Activity
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
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
ENDOCRINE	ChemSec - SIN List	Endocrine Disruption
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization
GENE MUTATION	GHS - Japan	Germ cell mutagenicity - Category 1B

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## SOLVENT-DEWAXED HEAVY PARAFFINIC PETROLEUM DISTILLATES

ID: 64742-65-0

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 2.50** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	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	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## ETHYLENE THIOUREA (ETU)

ID: 96-45-7

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 2.50** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	CA EPA - Prop 65	Carcinogen
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
ENDOCRINE	EU - Priority Endocrine Disruptors	Category 1 - In vivo evidence of Endocrine Disruption Activity
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
REPRODUCTIVE	EU - SVHC Authorisation List	Toxic to reproduction - Candidate list
DEVELOPMENTAL	EU - GHS (H-Statements)	H360D - May damage the unborn child
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 2 - Substances which should be regarded as if they impair fertility or cause Developmental Toxicity in humans
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
REPRODUCTIVE	GHS - Korea	Reproductive toxicity - Category 1 [H360 - May damage fertility or the unborn child]
REPRODUCTIVE	GHS - New Zealand	6.8A - Known or presumed human reproductive or developmental toxicants
REPRODUCTIVE	GHS - Japan	Toxic to reproduction - Category 1B
REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1B
DEVELOPMENTAL	GHS - Australia	H360D - May damage the unborn child

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## N-(2-HYDROXYETHYL)OCTADECANAMIDE

ID: 111-57-9

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 2.50**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

**POLYETHYLENE**

ID: 9002-88-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 2.50**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found****No warnings found on HPD Priority Hazard Lists**SUBSTANCE NOTES: **A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.****UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 2.50**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found****No warnings found on HPD Priority Hazard Lists**SUBSTANCE NOTES: **A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.****SILICA GEL**

ID: 112926-00-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 2.50**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found****No warnings found on HPD Priority Hazard Lists**SUBSTANCE NOTES: **A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.****UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 2.50**GS: **LT-P1**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**MULTIPLE****German FEA - Substances Hazardous to Waters****Class 2 - Hazard to Waters**SUBSTANCE NOTES: **A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.**

## UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 2.50**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**MULTIPLE**

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## PARAFFIN

ID: **8002-74-2**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 2.50**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found**

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 2.50**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found**

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## OLEIC ACID

ID: **112-80-1**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 2.50**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**ENDOCRINE**

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 2.50**GS: **LT-1**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	US EPA - IRIS Carcinogens	(1986) Group B2 - Probable human Carcinogen
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
ENDOCRINE	EU - Priority Endocrine Disruptors	Category 1 - In vivo evidence of Endocrine Disruption Activity
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
REPRODUCTIVE	EU - SVHC Authorisation List	Toxic to reproduction - Banned unless Authorised
ENDOCRINE	OSPAR - Priority PBTs & EDs & equivalent concern	Endocrine Disruptor - Chemical for Priority Action
DEVELOPMENTAL	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Developmental Toxicity
REPRODUCTIVE	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Reproductive Toxicity
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - Action Plan in development
REPRODUCTIVE	EU - GHS (H-Statements)	H360FD - May damage fertility. May damage the unborn child
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 2 - Substances which should be regarded as if they impair fertility or cause Developmental Toxicity in humans
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
REPRODUCTIVE	US EPA - PPT Chemical Action Plans	Reproductive effects
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
ENDOCRINE	EU - SVHC Authorisation List	Equivalent Concern - Candidate List
REPRODUCTIVE	GHS - Korea	Reproductive toxicity - Category 1 [H360 - May damage fertility or the unborn child]
REPRODUCTIVE	GHS - New Zealand	6.8A - Known or presumed human reproductive or developmental toxicants
REPRODUCTIVE	GHS - Japan	Toxic to reproduction - Category 1B
REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1B

REPRODUCTIVE	GHS - Malaysia	H360Fd - May damage fertility. Suspected of damaging the unborn child
CANCER	GHS - Australia	H350 - May cause cancer
REPRODUCTIVE	GHS - Australia	H360Fd - May damage fertility. Suspected of damaging the unborn child

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation.

## POLYETHYLENE COMPONENTS

%: 0.00 - 5.00

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

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

OTHER MATERIAL NOTES:

### POLYETHYLENE

ID: 9002-88-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

%: 0.00 - 5.00

GS: LT-UNK

RC: None

NANO: No

ROLE: Gasketing Material

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering.

## TPV COMPONENTS

%: 0.00 - 40.00

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

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

OTHER MATERIAL NOTES: This material is an alternate to polypropylene pile material.

### UNDISCLOSED

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2019-08-20

%: 0.00 - 40.00

GS: LT-1

RC: None

NANO: No

ROLE: Gasketing Material

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 40.00**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	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	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 40.00**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**



HAZARD TYPE	AGENCY AND LIST TITLES	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	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 40.00**      GS: **LT-1**      RC: **None**      NANO: **No**      ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	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	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 40.00**      GS: **LT-UNK**      RC: **None**      NANO: **No**      ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

%: **0.00 - 40.00**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**%: **0.00 - 40.00**GS: **LT-P1**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**ENDOCRINE****TEDX - Potential Endocrine Disruptors****Potential Endocrine Disruptor****MULTIPLE****German FEA - Substances Hazardous to Waters****Class 3 - Severe Hazard to Waters**

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**%: **0.00 - 40.00**GS: **BM-4**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**%: **0.00 - 40.00**GS: **BM-1**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-08-20**

%: **0.00 - 40.00**      GS: **NoGS**      RC: **None**      NANO: **No**      ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### DENSE SILICONE AND SILICONE COMPONENTS

%: **0.00**

PRODUCT THRESHOLD: **1000 ppm**      RESIDUALS AND IMPURITIES CONSIDERED: **No**

RESIDUALS AND IMPURITIES NOTES: **Residuals and Impurities not considered. Only intentionally added ingredients are presented in this HPD.**

OTHER MATERIAL NOTES: **This material is an alternate to polypropylene pile material.**

### UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-08-20**

%: **0.00 - 100.00**      GS: **LT-UNK**      RC: **None**      NANO: **Yes**      ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

#: **0.00 - 80.00** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

#: **0.00 - 80.00** GS: **LT-P1** RC: **None** NANO: **Yes** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

#: **0.00 - 80.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

?: **0.00 - 80.00**

GS: **BM-1**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

?: **0.00 - 65.00**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**MULTIPLE**

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

?: **0.00 - 65.00**

GS: **LT-UNK**

RC: **None**

NANO: **Yes**

ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

?: **0.00 - 65.00**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 55.00** GS: **BM-1** RC: **None** NANO: **Yes** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	EU - Priority Endocrine Disruptors	Category 1 - In vivo evidence of Endocrine Disruption Activity
PBT	EU - ESIS PBT	Under PBT evaluation
PBT	EU - SVHC Authorisation List	PBT - Candidate list
PBT	EU - SVHC Authorisation List	vPvB - Candidate list
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTE) to the Environment (based on aquatic organisms)
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - Action Plan in development
REPRODUCTIVE	EU - GHS (H-Statements)	H361f - Suspected of damaging fertility
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	ChemSec - SIN List	Endocrine Disruption
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - ongoing chemical (risk) assessment

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 55.00** GS: **BM-2** RC: **None** NANO: **No** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 30.00** GS: **LT-1** RC: **None** NANO: **Yes** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
PBT	EU - SVHC Authorisation List	PBT - Candidate list
PBT	EU - SVHC Authorisation List	vPvB - Candidate list
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTE) to the Environment (based on aquatic organisms)
PBT	ChemSec - SIN List	PBT / vPvB (Persistent, Bioaccumulative, & Toxic / very Persistent & very Bioaccumulative)

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 25.00** GS: **NoGS** RC: **None** NANO: **No** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 20.00** GS: **NoGS** RC: **None** NANO: **No** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 20.00** GS: **NoGS** RC: **None** NANO: **Yes** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 20.00** GS: **LT-UNK** RC: **None** NANO: **Yes** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 15.00** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.



**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 10.00**GS: **LT-P1**RC: **None**NANO: **Yes**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**CANCER**

GHS - Japan

Carcinogenicity - Category 1A

**CANCER**

GHS - Australia

H350i - May cause cancer by inhalation

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 10.00**GS: **LT-P1**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**MULTIPLE**

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 10.00**GS: **BM-1**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 10.00**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 10.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 10.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 3 - Severe Hazard to Waters

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 10.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

PBT

EC - CEPA DSL

Persistent, Bioaccumulative and inherently Toxic (PBiTE) to the Environment (based on aquatic organisms)

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **BM-2** RC: **None** NANO: **Yes** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 5.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
PBT	EU - ESIS PBT	Under PBT evaluation
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTE) to the Environment (based on aquatic organisms)
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
PBT	ChemSec - SIN List	PBT / vPvB (Persistent, Bioaccumulative, & Toxic / very Persistent & very Bioaccumulative)
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 5.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

**UNDISCLOSED**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 5.00** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTE) to the Environment (based on aquatic organisms)

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**      GS: **LT-UNK**      RC: **None**      NANO: **No**      ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**      GS: **LT-UNK**      RC: **None**      NANO: **No**      ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

### UNDISCLOSED

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 2.00**      GS: **LT-1**      RC: **None**      NANO: **No**      ROLE: **Gasketing Material**

HAZARD TYPE	AGENCY AND LIST TITLES	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	GHS - Japan	Toxic to reproduction - Category 1A

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 15.00**

GS: **NoGS**

RC: **None**

NANO: **No**

ROLE: **Gasketing Material**

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

SUBSTANCE NOTES: A range is provided to account for variation in product offering and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## BRONZE COMPONENTS

#: **0.00**

PRODUCT THRESHOLD: **1000 ppm**

RESIDUALS AND IMPURITIES CONSIDERED: **No**

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

OTHER MATERIAL NOTES: This material is an alternate to aluminum alloy material.

## COPPER

ID: **7440-50-8**

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 60.00**

GS: **LT-UNK**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**

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

SUBSTANCE NOTES: A range is provided to account for alloy variation and finish options. Due to the commodity nature of copper alloy most commercially available copper alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

**ZINC** ID: 7440-66-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 45.00**      GS: **LT-P1**      RC: **UNK**      NANO: **No**      ROLE: **Body and Components**

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for alloy variation and finish options. Due to the commodity nature of copper alloy most commercially available copper alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

**LEAD** ID: 7439-92-1

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**      HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 3.00**      GS: **LT-1**      RC: **UNK**      NANO: **No**      ROLE: **Body**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
DEVELOPMENTAL	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
CANCER	US EPA - IRIS Carcinogens	(1986) Group B2 - Probable human Carcinogen
CANCER	IARC	Group 2a - Agent is probably Carcinogenic to humans
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
PBT	US EPA - Priority PBTs (NWMP)	Priority PBT
PBT	WA DoE - PBT	PBT

REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Female
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
PBT	US EPA - Toxics Release Inventory PBTs	PBT
REPRODUCTIVE	EU - SVHC Authorisation List	Toxic to reproduction - Candidate list
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
DEVELOPMENTAL	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Developmental Toxicity
REPRODUCTIVE	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Reproductive Toxicity
REPRODUCTIVE	EU - GHS (H-Statements)	H360FD - May damage fertility. May damage the unborn child
DEVELOPMENTAL	EU - GHS (H-Statements)	H362 - May cause harm to breast-fed children
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 1 - Substances known to impair fertility or cause Developmental Toxicity in humans
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
CANCER	GHS - Korea	Carcinogenicity - Category 1 [H350 - May cause cancer]
REPRODUCTIVE	GHS - Korea	Reproductive toxicity - Category 1 [H360 - May damage fertility or the unborn child]
REPRODUCTIVE	GHS - New Zealand	6.8A - Known or presumed human reproductive or developmental toxicants
GENE MUTATION	MAK	Germ Cell Mutagen 3a
REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1A
DEVELOPMENTAL	GHS - Australia	H360Df - May damage the unborn child. Suspected of damaging fertility
REPRODUCTIVE	GHS - Japan	Toxic to reproduction - Category 1A [H360]

SUBSTANCE NOTES: A range is provided to account for alloy variation, finish options and lining option. Due to the commodity nature of copper alloy most commercially available copper alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## NICKEL

ID: 7440-02-0

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

HAZARD SCREENING DATE: **2019-08-20**

%: **0.00 - 5.00**

GS: **LT-1**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**



HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for alloy variation and finish options. Due to the commodity nature of copper alloy most commercially available copper alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

## ALUMINUM (PRIMARY CASRN IS 7429-90-5)

ID: 477951-22-7

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

HAZARD SCREENING DATE: **2019-08-20**

%: **0.00 - 1.00**

GS: **LT-P1**

RC: **UNK**

NANO: **No**

ROLE: **Body and Components**

HAZARD TYPE	AGENCY AND LIST TITLES	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: A range is provided to account for alloy variation and finish options. Due to the commodity nature of copper alloy most commercially available copper alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2019-08-20**%: **0.00 - 1.00**GS: **LT-1**RC: **UNK**NANO: **No**ROLE: **Body and Components**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
DEVELOPMENTAL	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
CANCER	US EPA - IRIS Carcinogens	(1986) Group A - Human Carcinogen
CANCER	IARC	Group 1 - Agent is 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
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
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
MAMMALIAN	EU - GHS (H-Statements)	H301 - Toxic if swallowed
MAMMALIAN	EU - GHS (H-Statements)	H331 - Toxic if inhaled
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
MAMMALIAN	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances
CANCER	GHS - Korea	Carcinogenicity - Category 1 [H350 - May cause cancer]
CANCER	GHS - New Zealand	6.7A - Known or presumed human carcinogens
GENE MUTATION	MAK	Germ Cell Mutagen 3a
CANCER	GHS - Australia	H350 - May cause cancer
CANCER	GHS - Japan	Carcinogenicity - Category 1A [H350]

SUBSTANCE NOTES: A range is provided to account for alloy variation and finish options. Due to the commodity nature of copper alloy most commercially available copper alloy contains some amount of recycled content. The exact percentage will likely change due to market conditions.

**OPTIONAL LEAD LINING**%: **0.00 - 60.00**PRODUCT THRESHOLD: **1000 ppm**RESIDUALS AND IMPURITIES CONSIDERED: **No**

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

OTHER MATERIAL NOTES: Lead Lining is optional on aluminum, bronze, steel, and stainless steel base material. The exact weight percentage varies with the weight percentage of the base material and its density.

**LEAD**

ID: 7439-92-1

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

HAZARD SCREENING DATE: **2019-08-20**

%: **0.00 - 55.00**                      GS: **LT-1**                      RC: **None**                      NANO: **No**                      ROLE: **Optional Lining**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
DEVELOPMENTAL	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
CANCER	US EPA - IRIS Carcinogens	(1986) Group B2 - Probable human Carcinogen
CANCER	IARC	Group 2a - Agent is probably Carcinogenic to humans
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
PBT	US EPA - Priority PBTs (NWMP)	Priority PBT
PBT	WA DoE - PBT	PBT
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Female
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
PBT	US EPA - Toxics Release Inventory PBTs	PBT
REPRODUCTIVE	EU - SVHC Authorisation List	Toxic to reproduction - Candidate list
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
PBT	OR DEQ - Priority Persistent Pollutants	Priority Persistent Pollutant - Tier 1
DEVELOPMENTAL	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Developmental Toxicity
REPRODUCTIVE	US NIH - Reproductive & Developmental Monographs	Clear Evidence of Adverse Effects - Reproductive Toxicity
REPRODUCTIVE	EU - GHS (H-Statements)	H360FD - May damage fertility. May damage the unborn child
DEVELOPMENTAL	EU - GHS (H-Statements)	H362 - May cause harm to breast-fed children
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 1 - Substances known to impair fertility or cause Developmental Toxicity in humans
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man

CANCER	GHS - Korea	Carcinogenicity - Category 1 [H350 - May cause cancer]
REPRODUCTIVE	GHS - Korea	Reproductive toxicity - Category 1 [H360 - May damage fertility or the unborn child]
REPRODUCTIVE	GHS - New Zealand	6.8A - Known or presumed human reproductive or developmental toxicants
REPRODUCTIVE	GHS - Japan	Toxic to reproduction - Category 1A [H360]
GENE MUTATION	MAK	Germ Cell Mutagen 3a
REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1A
DEVELOPMENTAL	GHS - Australia	H360Df - May damage the unborn child. Suspected of damaging fertility

SUBSTANCE NOTES: A range is provided to protect the proprietary nature of the formulation.

## ANTIMONY

ID: 7440-36-0

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Optional Lining**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CHRON AQUATIC	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man

SUBSTANCE NOTES: A range is given to protect the proprietary nature of the formulation.

## FINISH OPTIONS

#: **0.00 - 3.00**

PRODUCT THRESHOLD: **1000 ppm**

RESIDUALS AND IMPURITIES CONSIDERED: **No**

RESIDUALS AND IMPURITIES NOTES: **Residuals and Impurities not considered. Only intentionally added ingredients are presented in this HPD.**

OTHER MATERIAL NOTES: **There are multiple finish options for each base material. For details, please refer to National Guard Products' catalog. The exact weight percentage of finish is correlated with the weight percentage of the base material and its density.**

## UNDISCLOSED

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 5.00**

GS: **NoGS**

RC: **None**

NANO: **No**

ROLE: **Finish Options**

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

SUBSTANCE NOTES: A range is provided to account for variation in finish options and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## UNDISCLOSED

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2019-08-20</b>			
%: <b>0.00 - 5.00</b>	GS: <b>LT-P1</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Finish Options</b>

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	EU - Priority Endocrine Disruptors	Category 1 - In vivo evidence of Endocrine Disruption Activity

SUBSTANCE NOTES: A range is provided to account for variation in finish options and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## BARIUM SULFATE

ID: **7727-43-7**

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2019-08-20</b>			
%: <b>0.00 - 5.00</b>	GS: <b>BM-2</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Finish Options</b>

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SUBSTANCE NOTES: A range is provided to account for variation in finish options and to protect the proprietary nature of the formulation.

## UNDISCLOSED

HAZARD SCREENING METHOD: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2019-08-20</b>			
%: <b>0.00 - 2.50</b>	GS: <b>NoGS</b>	RC: <b>None</b>	NANO: <b>No</b>	ROLE: <b>Finish Options</b>

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

SUBSTANCE NOTES: A range is provided to account for variation in finish options and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## TITANIUM DIOXIDE

ID: **13463-67-7**



HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagens (Rs) - sensitizer-induced
GENE MUTATION	EU - SVHC Authorisation List	Mutagenic - Candidate list
MAMMALIAN	EU - GHS (H-Statements)	H301 - Toxic if swallowed
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
EYE IRRITATION	EU - GHS (H-Statements)	H318 - Causes serious eye damage
MAMMALIAN	EU - GHS (H-Statements)	H331 - Toxic if inhaled
GENE MUTATION	EU - GHS (H-Statements)	H340 - May cause genetic defects
GENE MUTATION	EU - REACH Annex XVII CMRs	Mutagen Category 2 - Substances which should be regarded as if they are Mutagenic to man
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
GENE MUTATION	GHS - Korea	Germ cell mutagenicity - Category 1 [H340 - May cause genetic defects]
GENE MUTATION	EU - Annex VI CMRs	Mutagen - Category 1B
GENE MUTATION	GHS - New Zealand	6.6A - Known or presumed human mutagens
GENE MUTATION	GHS - Japan	Germ cell mutagenicity - Category 1B [H340]

SUBSTANCE NOTES: A range is provided to account for variation in finish options and to protect the proprietary nature of the formulation. CAS number and substance name withheld due to being proprietary information of the supplier.

## HYDROTREATED HEAVY PARAFFINIC PETROLEUM DISTILLATES (MINERAL OIL)

ID: 64742-54-7

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

HAZARD SCREENING DATE: **2019-08-20**

#: **0.00 - 2.50**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Finish Options**

HAZARD TYPE	AGENCY AND LIST TITLES	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	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is provided to account for variation in finish options and to protect the proprietary nature of the formulation.

**SOLVENT-DEWAXED HEAVY PARAFFINIC PETROLEUM DISTILLATES**

ID: 64742-65-0

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

HAZARD SCREENING DATE: **2019-08-20**

?: **0.00 - 2.50**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Finish Options**

HAZARD TYPE	AGENCY AND LIST TITLES	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	GHS - Australia	H350 - May cause cancer

SUBSTANCE NOTES: A range is provided to account for variation in finish options and to protect the proprietary nature of the formulation.



## 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

Inherently non- emitting source per LEED®

CERTIFYING PARTY: **Self-declared**

ISSUE DATE: **2019-**

EXPIRY DATE:

CERTIFIER OR LAB: **N/A**

APPLICABLE FACILITIES: **All**

**08-20**

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.*

No accessories are required for this product.

## Section 5: General Notes

This HPD considers gaskets of aluminum, steel, stainless steel, bronze, brass, PVC, polypropylene pile, TPV, EPDM, neoprene, silicone, nylon, HDPE. Other than material options, the option of lead lining and most finish options are also included. This HPD serves to disclose the chemical ingredients of all product options provided by NGP. For HPDs of specific configurations and SKUs, please contact NGP using the contact information listed at the end of this document.



## MANUFACTURER INFORMATION

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MANUFACTURER: **National Guard Products**  
 ADDRESS: **4985 East Raines Rd**  
**Memphis TN 38118, United States**  
 WEBSITE: **www.ngp.com**

CONTACT NAME: **Roger Skold**  
 TITLE: **Technical Director**  
 PHONE: **800-647-7874**  
 EMAIL: **rogers@ngp.com**

## KEY

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**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

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

### GreenScreen (GS)

<b>BM-4</b> Benchmark 4 (prefer-safer chemical)	<b>LT-P1</b> List Translator Possible Benchmark 1
<b>BM-3</b> Benchmark 3 (use but still opportunity for improvement)	<b>LT-1</b> List Translator Likely Benchmark 1
<b>BM-2</b> Benchmark 2 (use but search for safer substitutes)	<b>LT-UNK</b> List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
<b>BM-1</b> Benchmark 1 (avoid - chemical of high concern)	<b>NoGS</b> Unknown (no data on List Translator Lists)
<b>BM-U</b> Benchmark Unspecified (insufficient data to benchmark)	

### 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.*