

Safety Data Sheet according to the Hazardous Products Regulation (February 11, 2015)

### **SECTION 1: Identification**

**Product identifier** 1.1. Product name

: 316 Grade Stainless Steel

#### 1.2. Recommended use and restrictions on use

No additional information available

#### 1.3. Supplier

Swagelok 29495 F.A. Lennon Drive 44139 Solon, OH - United States T 440-349-5600 - F 440-519-3304 www.swagelok.com

#### 1.4. Emergency telephone number

Emergency number

: Infotrac: North America: 1-800-535-5053 International: 1-352-323-3500

### **SECTION 2: Hazard identification**

Classification of the substance or mixture 2.1.

Steel products as shipped do not present an inhalation, ingestion, or contact health hazard. Operations however, such as welding, burning, sawing, brazing, grinding, and machining results in elevating the temperature of the product to or above its melting point or results in the generation of airborne particulates may present hazards.

### **Classification (GHS-CA)**

Acute toxicity (oral) Category 4	H302
Respiratory sensitization, Category 1	H334
Skin sensitization, Category 1	H317
Carcinogenicity, Category 1	H350
Specific target organ toxicity (repeated exposure) Category 1	H372

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

### **GHS-CA** labeling

Hazard pictograms (GHS-CA)

Signal word (GHS-CA)	: Danger	
Hazard statements (GHS-CA)	<ul> <li>H302 - Harmful if swallowed</li> <li>H317 - May cause an allergic skin reaction</li> <li>H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled</li> <li>H350 - May cause cancer</li> <li>H372 - Causes damage to organs through prolonged or repeated exposure</li> </ul>	
Precautionary statements (GHS-CA)	<ul> <li>P201 - Obtain special instructions before use</li> <li>P202 - Do not handle until all safety precautions have been read and understood</li> <li>P260 - Do not breathe dust</li> <li>P261 - Avoid breathing dust</li> <li>P264 - Wash hands, forearms and face thoroughly after handling</li> <li>P270 - Do not eat, drink or smoke when using this product</li> <li>P272 - Contaminated work clothing should not be allowed out of the workplace</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection</li> <li>P284 - [In case of inadequate ventilation] wear respiratory protection</li> <li>P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell</li> <li>P302+P352 - IF ON SKIN: Wash with plenty of water</li> <li>P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for bre</li> <li>P308+P313 - IF exposed or concerned: Get medical advice/attention</li> <li>P314 - Get medical advice if you feel unwell</li> <li>P321 - Specific treatment (see first aid measures on this label)</li> <li>P330 - Rinse mouth if swallowed</li> <li>P333+P313 - If skin irritation or rash occurs: Get medical attention</li> <li>P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER</li> <li>P362+P364 - Take off contaminated clothing and wash it before reuse</li> <li>P405 - Store locked up</li> <li>P501 - Dispose of contents/container to meet all regulations</li> </ul>	
Created: 09/14/2017	EN (English US)	Page

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

#### 2.3. Other hazards

Other hazards not contributing to the classification 2.4. Unknown acute toxicity (GHS-CA) No data available

## **SECTION 3: Composition/Information on ingredients**

:

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS-CA)
Iron	Iron, elemental / Iron 55 / Direct reduced Iron / Iron, reduced / Elemental iron / IRON POWDER	(CAS-No.) 7439-89-6	<= 90	Acute Tox. 4 (Oral), H302
Nickel	Nickel metal / Nickel, elemental / Nickel, metallic / Nickel, metal / C.I. 77775	(CAS-No.) 7440-02-0	<= 30	Skin Sens. 1, H317 Carc. 1, H350 STOT RE 1, H372
Molybdenum		(CAS-No.) 7439-98-7	<= 10	Acute Tox. 4 (Dermal), H312
Cobalt		(CAS-No.) 7440-48-4	<= 1	Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 Aquatic Chronic 4, H413
Tungsten	Tungsten	(CAS-No.) 7440-33-7	<= 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Tin	Tin metal / Tin, elemental / Tin, metal	(CAS-No.) 7440-31-5	<= 1	Acute Tox. 4 (Oral), H302

: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for

Full text of hazard classes and H-statements: see section 16

### **SECTION 4: First-aid measures**

4.1.	Description of first aid measures
First-aid	measures after inhalation

			breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physic	cian.
First-ai	d measures after skin contact	:	Remove affected clothing and wash all exposed skin area with mild soap and water, follow by warm water rinse. Wash with plenty of soap and water. If skin irritation or rash occurs: 0 medical advice/attention. Specific treatment (see first aid measures on this label). Wash contaminated clothing before reuse.	
First-ai	d measures after eye contact	:	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or rednes persists.	S
First-ai	d measures after ingestion	:	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISC CENTER or doctor/physician if you feel unwell.	NC
First-ai	d measures general	:	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).	
4.2.	Most important symptoms and eff	ects	(acute and delayed)	
Sympto	oms/effects after inhalation	:	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.	
Sympto	oms/effects after ingestion	:	Swallowing a small quantity of this material will result in serious health hazard.	
Potenti sympto	al Adverse human health effects and ms	:	Based on available data, the classification criteria are not met. Harmful if swallowed.	
4.3.	Immediate medical attention and s	speci	al treatment, if necessary	
No add	litional information available			
SECT	ION 5: Fire-fighting measures	5		
5.1.	Suitable extinguishing media			
Suitabl	e extinguishing media	:	Foam. Dry powder. Carbon dioxide. Water spray. Sand.	
5.2.	Unsuitable extinguishing media			
Unsuita	able extinguishing media	:	Do not use a heavy water stream.	
5.3.	Specific hazards arising from the	haza	rdous product	
Fire ha	zard	:	Non-combustible, substance itself does not burn but may decompose upon heating to proc corrosive and/or toxic fumes.	duce
5.4.	Special protective equipment and	prec	autions for fire-fighters	
Firefigh	nting instructions	:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.	1
Created	: 09/14/2017		EN (English US)	2/9

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Protection during firefighting

: Do not enter fire area without proper protective equipment, including respiratory protection.

### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures

: May decompose at temperatures above 500F/260C to produce organo-chlorine compounds, organo-fluorine compounds, hydrogen fluoride, and chlorine gas.

#### 6.2. Methods and materials for containment and cleaning up

Methods for cleaning up

: On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

### **SECTION 7: Handling and storage**

7.1.	Precautions for safe handling	

Precautions for safe handling	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing dust from machining. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust.
Hygiene measures	Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.
Additional hazards when processed	: Steel products as shipped do not present an inhalation, ingestion, or contact health hazard. Operations however, such as welding, burning, sawing, brazing, grinding, and machining results in elevating the temperature of the product to or above its melting point or results in the generation of airborne particulates may present hazards.
7.2. Conditions for safe storage, includ	ing any incompatibilities
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from: children. Keep container closed when not in use.
Incompatible products	: Strong bases. Strong acids.

: Sources of ignition. Direct sunlight.

### **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

Incompatible materials

Nickel (7440-02-0)		
USA - OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Manitoba	OEL TWA (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (inhalable particulate matter)
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
New Foundland & Labrador	OEL TWA (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (inhalable particulate matter)
Nova Scotia	OEL TWA (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (inhalable particulate matter)
Nunavut	OEL STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (inhalable fraction)
Nunavut	OEL TWA (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (inhalable fraction)
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (inhalable fraction)
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (inhalable fraction)
Prince Edward Island	OEL TWA (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (inhalable particulate matter)
Saskatchewan	OEL STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (inhalable fraction)
Saskatchewan	OEL TWA (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (inhalable fraction)
Yukon	OEL STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Yukon	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Molybdenum (7439-98-7)		
USA - OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	10 mg/m3 (Inhalable fraction) 3 mg/m3 (Respirable fraction)
Manganese (7439-96-5)		
USA - OSHA	OSHA PEL (Ceiling) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (fume)
Manitoba	OEL TWA (mg/m <sup>3</sup> )	0.02 mg/m <sup>3</sup> (respirable particulate matter)
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
New Foundland & Labrador	OEL TWA (mg/m <sup>3</sup> )	0.02 mg/m <sup>3</sup> (respirable particulate matter)

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Manganese (7439-96-5)		
Nova Scotia	OEL TWA (mg/m <sup>3</sup> )	0.02 mg/m <sup>3</sup> (respirable particulate matter)
Nunavut	OEL STEL (mg/m <sup>3</sup> )	0.6 mg/m <sup>3</sup>
Nunavut	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	0.6 mg/m <sup>3</sup>
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Prince Edward Island	OEL TWA (mg/m <sup>3</sup> )	0.02 mg/m <sup>3</sup> (respirable particulate matter)
Saskatchewan	OEL STEL (mg/m <sup>3</sup> )	0.6 mg/m <sup>3</sup>
Saskatchewan	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Yukon	OEL Ceiling (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Silicon (7440-21-3)		
USA - OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m <sup>3</sup> (total) TWA 5 mg/m3 (resp)
Copper (7440-50-8)		
USA - OSHA	OSHA PEL (TWA) (mg/m³)	1 fibers/cm <sup>3</sup>
Aluminium (7429-90-5)	·	
USA - OSHA	OSHA PEL (TWA) (mg/m³)	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
Tin (7440-31-5)		
Manitoba	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
New Foundland & Labrador	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Nova Scotia	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Nunavut	OEL STEL (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup> (metal)
Nunavut	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (metal)
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup> (metal)
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (metal)
Prince Edward Island	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Saskatchewan	OEL STEL (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup>
Saskatchewan	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Cobalt (7440-48-4)	·	-
USA - OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>

8.2. Appropriate engineering controls

Appropriate engineering controls

: Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e, there is not leakage from the equipment).

8.3. Individual protection measures/Personal protective equipment

### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

Wear protective gloves

#### Eye protection:

Chemical goggles or safety glasses

#### Skin and body protection:

Impervious shoes

#### **Respiratory protection:**

In case of inadequate ventilation wear respiratory protection during machining.

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### Other information:

Do not eat, drink or smoke during use.

### **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and	chemical properties
Physical state	: Solid
Appearance	: No data available
Color	: Colorless
Odor	: characteristic
Odor threshold	: No data available
рН	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable
Vapor pressure	: No data available
Vapor pressure at 50 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available

### 9.2. Other information

No additional information available

### **SECTION 10: Stability and reactivity**

10.1. Reactivity	
Chemical stability	: Not established.
Possibility of hazardous reactions	: Not established.
Conditions to avoid	: Direct sunlight. Extremely high or low temperatures.
Incompatible materials	: Strong acids. Strong bases. Sodium, potassium, barium, calcium, finely divided zinc, aluminum, magnesium, and beryllium. Avoid aluminum threaded connections where galling and seizure may initiate a reaction. Reacts with amines, liquid fluorine, and liquid chlorine trifluoride.
Hazardous decomposition products	: May decompose at temperatures above 500F/260C to produce organo-chlorine compounds, organo-fluorine compounds, hydrogen fluoride, and chlorine gas.

## **SECTION 11: Toxicological information**

11.1.	Information on toxicological effects
-------	--------------------------------------

Acute toxicity (oral) Acute toxicity (dermal)	<ul><li>: Oral: Harmful if swallowed.</li><li>: Not classified</li></ul>
Acute toxicity (inhalation)	: Not classified
ATE CA (oral)	1036.5458650858 mg/kg body weight
Iron (7439-89-6)	
LD50 oral rat	984 mg/kg
Nickel (7440-02-0)	
LD50 oral rat	> 9000 mg/kg
Molybdenum (7439-98-7)	
LD50 oral rat	5000 mg/kg
LD50 dermal rabbit	2000 mg/kg
LC50 inhalation rat (mg/l)	5.84 mg/l 4 hours

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Manganese (7439-96-5)			
LD50 oral rat	9 g/kg		
Silicon (7440-21-3)	·		
LD50 oral rat	3160 mg/kg		
Tin (7440-31-5)			
LD50 oral rat	700 mg/kg		
Cobalt (7440-48-4)			
LD50 oral rat	6171 mg/kg		
Skin corrosion/irritation	: Not classified		
Serious eye damage/irritation	: Not classified		
Respiratory or skin sensitization	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.		
Germ cell mutagenicity	: Not classified		
Carcinogenicity	: May cause cancer.		
Reproductive toxicity	: Not classified		
Specific target organ toxicity – single exposure	: Not classified		
Specific target organ toxicity – repeated exposure	: Causes damage to organs through prolonged or repeated exposure.		
Aspiration hazard	: Not classified		
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met. Harmful if swallowed.		
Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.		
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.		

## **SECTION 12: Ecological information**

12.1. Toxicity

Nickel (7440-02-0)	
LC50 fish 1	> 100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)
LC50 fish 2	1.3 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])
EC50 Daphnia 1	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Daphnia 2	1 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
Chromium (7440-47-3)	
LC50 fish 1	14.3 mg/l Cyprinus carpio (Carp) 96 hours
EC50 Daphnia 1	0.07 mg/l Daphnia magna (Water flea) 48 hours
LOEC (acute)	2.4 mg/l Pimephales promelas (fathead minnow)-7d
NOEC (acute)	12 mg/l Pimephales promelas (fathead minnow)- 7d
Copper (7440-50-8)	
EC50 Daphnia 1	0.04 - 0.05 mg/l 48 hours
LOEC (chronic)	0.022 mg/l 96hours
NOEC (chronic)	0.004 mg/l 24 hours
ErC50 (algae)	< mg/l
Aluminium (7429-90-5)	
LC50 fish 1	0.12 ml/l Oncorhynchus mykiss (rainbow trout)-48 hours
LOEC (acute)	0.1 mg/l Ctenopharyngodon idella- 96 hours
Cobalt (7440-48-4)	
LC50 fish 1	100.01 mg/l zebra fish 96hours
12.2. Persistence and degradability	
316 Grade Stainless Steel	
Persistence and degradability	Not established.
Iron (7439-89-6)	
Persistence and degradability	May cause long-term adverse effects in the environment.
Nickel (7440-02-0)	
Persistence and degradability	May cause long-term adverse effects in the environment.

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

5 5 1	
Chromium (7440-47-3)	
Persistence and degradability	Not established.
Molybdenum (7439-98-7)	
Persistence and degradability	Not established.
Manganese (7439-96-5)	
Persistence and degradability	Not established.
Silicon (7440-21-3)	
Persistence and degradability	Not established.
Copper (7440-50-8)	
Persistence and degradability	May cause long-term adverse effects in the environment.
Aluminium (7429-90-5)	
Persistence and degradability	Not established.
Tungsten (7440-33-7)	
Persistence and degradability	Not established.
Cobalt (7440-48-4)	
Persistence and degradability	May cause long-term adverse effects in the environment.
12.3. Bioaccumulative potential	
316 Grade Stainless Steel	
Bioaccumulative potential	Not established.
	Not cotabilotica.
Chromium (7440-47-3) BCF fish 1	0.00133 mg/l Oncorhynchus mykiss (rainbow trout) - 30 d
Bioconcentration factor (BCF REACH)	1.03-1.22
Bioaccumulative potential	Not established.
Molybdenum (7439-98-7)	
Bioaccumulative potential	Not established.
Manganese (7439-96-5)	
Bioaccumulative potential	Not established.
	Not cotabilotica.
Silicon (7440-21-3) Bioaccumulative potential	Not established.
•	Not established.
Copper (7440-50-8) Bioconcentration factor (BCF REACH)	108
	100
Aluminium (7429-90-5) BCF fish 1	0.069 mall Calvaliana fantinalia EC d
Bioconcentration factor (BCF REACH)	0.268 mg/l Salvelinus fontinalis - 56 d 36
Bioaccumulative potential	Not established.
	Hot obtablishou.
Tungsten (7440-33-7) Bioaccumulative potential	Not established.
	างปี ประสบการที่เรียน.
Cobalt (7440-48-4)	Not optablished
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

# 12.5. Other adverse effects

GWPmix comment	: No known effects from this product.
Other information	: Avoid release to the environment.

### **SECTION 13: Disposal considerations**

### 13.1. Disposal methods

Product/Packaging disposal recommendations	:	Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	:	Avoid release to the environment.

## **SECTION 14: Transport information**

### 14.1. Basic shipping description

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### **Transportation of Dangerous Goods**

Not regulated for transport

#### 14.2. Transport information/DOT

**Department of Transport** 

Not regulated for transport

#### 14.3. Air and sea transport

IMDG

Not regulated for transport

ΙΑΤΑ

Not regulated for transport

### **SECTION 15: Regulatory information**

#### 15.1. National regulations

### Iron (7439-89-6)

Listed on the Canadian DSL (Dor	mestic Substances List)
Nickel (7440-02-0)	

Listed on the Canadian DSL (Domestic Substances List)

#### Manganese (7439-96-5)

Listed on the Canadian DSL (Domestic Substances List)

Titanium	(7440-32-6)
mannann	(1440 02 0)

Listed on the Canadian DSL (Domestic Substances List)

#### Tin (7440-31-5)

Listed on the Canadian DSL (Domestic Substances List)

#### 15.2. International regulations

### Iron (7439-89-6)

Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on CICR (Turkish Inventory and Control of Chemicals) Nickel (7440-02-0) Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the United States TSCA (Toxic Substances Control Act) inventory Japanese Pollutant Release and Transfer Register Law (PRTR Law) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on CICR (Turkish Inventory and Control of Chemicals)

### Chromium (7440-47-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### Manganese (7439-96-5)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on CICR (Turkish Inventory and Control of Chemicals)

### Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### Silicon (7440-21-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Titanium (7440-32-6)	
Listed on the AICS (Australian Inventory of Chemical Substances)	
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
Listed on the Korean ECL (Existing Chemicals List)	
Listed on NZIoC (New Zealand Inventory of Chemicals)	
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on INSQ (Mexican National Inventory of Chemical Substances)	
Listed on CICR (Turkish Inventory and Control of Chemicals)	
Tin (7440-31-5)	
Listed on the AICS (Australian Inventory of Chemical Substances)	
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
Listed on the Korean ECL (Existing Chemicals List)	
Listed on NZIoC (New Zealand Inventory of Chemicals)	
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on INSQ (Mexican National Inventory of Chemical Substances)	
Listed on CICR (Turkish Inventory and Control of Chemicals)	
Cobalt (7440-48-4)	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory	

### **SECTION 16: Other information**

Other information

: None.

Full text of H-phrases:	
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H350	May cause cancer
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure
H413	May cause long lasting harmful effects to aquatic life

SDS Canada (GHS)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product