



# SAFETY DATA SHEET

Issue Date 28-May-2015

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Version 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** Stainless Steel

### Other means of identification

**Product Code** FRP008

**Synonyms** Stainless steel with or without carbon steel core.

### Recommended use of the chemical and restrictions on use

**Recommended Use** Stainless steel product manufacture.

**Uses advised against**

### Details of the supplier of the safety data sheet

#### Manufacturer Address

ATI, 1000 Six PPG Place, Pittsburgh, PA  
15222 USA

#### Emergency telephone number

**Company Phone Number** 724-226-5980

**24 Hour Emergency Phone Number** 724-226-5555

**Emergency Telephone** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1

### Label elements

#### Emergency Overview

**Danger**

#### **Hazard statements**

Suspected of causing cancer

May cause an allergic skin reaction

Causes damage to respiratory track prolonged or repeated exposure if inhaled.



**Appearance** Various massive product forms

**Physical state** Solid

**Odor** Odorless

**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wear protective gloves

If skin irritation or rash occurs: Get medical advice/attention

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other Information**

When product is subjected to welding, burning, melting, sawing, brazing, grinding, buffing, polishing, or other similar heat-generating processes, the following potentially hazardous airborne particles and/or fumes may be generated: zinc, copper, magnesium, or cadmium fumes may cause metal fume fever, titanium dioxide an IARC Group 2B carcinogen, Hexavalent Chromium (Chromium VI) may cause lung, nasal, and/or sinus cancer, Vanadium pentoxide (V<sub>2</sub>O<sub>5</sub>) affects eyes, skin, respiratory system, Soluble molybdenum compounds such as molybdenum trioxide may cause lung irritation.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms**

Stainless steel with or without carbon steel core.

Chemical Name	CAS No.	Weight-%
Iron	7439-89-6	<90
Nickel	7440-02-0	0-46
Chromium	7440-47-3	10-30
Manganese	7439-96-5	0-10
Molybdenum	7439-98-7	0-7.0
Silicon	7440-21-3	0-6.5
Aluminum	7429-90-5	0-4.0
Copper	7440-50-8	0-4.0
Tungsten	7440-33-7	0-2.5
Titanium	7440-32-6	0-2.4
Boron	19287-88-8	0-2.25
Vanadium	7440-62-2	0-1.1
Tantalum	7440-25-7	0-1.0
Niobium (Columbium)	7440-03-1	0-1.0

### 4. FIRST AID MEASURES

**First aid measures****Eye contact**

In the case of particles coming in contact with eyes during processing, treat as with any foreign object.

**Skin Contact**

In the case of allergic skin reaction see a physician.

**Inhalation**

If excessive amounts of vapors, smoke, fume, or particles are inhaled during processing, remove to fresh air and consult a qualified health professional.

**Ingestion**

Not an expected route of exposure.

**Most important symptoms and effects, both acute and delayed****Symptoms**

May cause allergic skin reaction.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Not flammable in the form of this product as distributed, flammable as finely divided particles or pieces resulting from processing of this product. Smother with salt (NaCl) or class D dry powder fire extinguisher.

**Unsuitable extinguishing media** Do not spray water on burning metal as an explosion may occur. This explosive characteristic is caused by the hydrogen and steam generated by the reaction of water with the burning material.

### Specific hazards arising from the chemical

Intense heat. Very fine, high surface area material resulting from grinding, buffing, polishing, or similar processes of this product may ignite spontaneously at room temperature. **WARNING:** Fine particles resulting from grinding, buffing, polishing, or similar processes of this product may form combustible dust-air mixtures. Keep particles away from all ignition sources including heat, sparks, and flame. Prevent dust accumulations to minimize combustible dust hazard.

**Hazardous combustion products** Titanium dioxide an IARC Group 2B carcinogen. Hexavalent Chromium (Chromium VI) may cause lung, nasal, and/or sinus cancer. Vanadium pentoxide (V2O5) affects eyes, skin, respiratory system. Zinc, copper, magnesium, or cadmium fumes may cause metal fumes fever. Soluble molybdenum compounds such as molybdenum trioxide may cause lung irritation.

### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) respirator and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Use personal protective equipment as required.

**For emergency responders** Use personal protective equipment as required.

### Environmental precautions

**Environmental precautions** See Section 12 for additional ecological information.

### Methods and material for containment and cleaning up

**Methods for containment** Not applicable to massive product.

**Methods for cleaning up** Not applicable to massive product.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Intense heat. Very fine, high surface area material resulting from grinding, buffing, polishing, or similar processes of this product may ignite spontaneously at room temperature. **WARNING:** Fine particles resulting from grinding, buffing, polishing, or similar processes of this product may form combustible dust-air mixtures. Keep particles away from all ignition sources including heat, sparks, and flame. Prevent dust accumulations to minimize combustible dust hazard.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep chips, turnings, dust, and other small particles away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

**Incompatible materials** Dissolves in hydrofluoric acid. Ignites in the presence of flourine. When heated above 200°C, reacts exothermically with the following: Chlorine, bromine, halocarbons, carbon tetrachloride, carbon tetrafluoride, and freon.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL
Iron 7439-89-6	-	-
Nickel 7440-02-0	TWA: 1.5 mg/m <sup>3</sup> inhalable fraction	TWA: 1 mg/m <sup>3</sup>
Chromium 7440-47-3	TWA: 0.5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>
Manganese 7439-96-5	TWA: 0.02 mg/m <sup>3</sup> respirable fraction TWA: 0.1 mg/m <sup>3</sup> inhalable fraction 0.02 mg/m <sup>3</sup> Mn TWA: 0.1 mg/m <sup>3</sup> Mn	(vacated) STEL: 3 mg/m <sup>3</sup> fume (vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> fume Ceiling: 5 mg/m <sup>3</sup> Mn
Molybdenum 7439-98-7	TWA: 10 mg/m <sup>3</sup> inhalable fraction TWA: 3 mg/m <sup>3</sup> respirable fraction	-
Silicon 7440-21-3	-	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction
Aluminum 7429-90-5	TWA: 1 mg/m <sup>3</sup> respirable fraction	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction
Copper 7440-50-8	TWA: 0.2 mg/m <sup>3</sup> fume TWA: 1 mg/m <sup>3</sup> Cu dust and mist	TWA: 0.1 mg/m <sup>3</sup> fume TWA: 1 mg/m <sup>3</sup> dust and mist
Tungsten 7440-33-7	STEL: 10 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup> W TWA: 5 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> W	(vacated) STEL: 10 mg/m <sup>3</sup> (vacated) STEL: 10 mg/m <sup>3</sup> W
Titanium 7440-32-6	-	-
Boron 19287-88-8	-	-
Vanadium 7440-62-2	-	Ceiling: 0.5 mg/m <sup>3</sup> V2O5 respirable dust Ceiling: 0.1 mg/m <sup>3</sup> V2O5 fume
Tantalum 7440-25-7	-	TWA: 5 mg/m <sup>3</sup>
Niobium (Columbium) 7440-03-1	-	-

**Appropriate engineering controls**

**Engineering Controls** Avoid generation of uncontrolled particles.

**Individual protection measures, such as personal protective equipment**

- Eye/face protection** When airborne particles may be present, appropriate eye protection is recommended. For example, tight-fitting goggles, foam-lined safety glasses or other protective equipment that shield the eyes from particles.
- Skin and body protection** Fire/flame resistant/retardant clothing may be appropriate during hot work with the product. Cut-resistant gloves and/or protective clothing may be appropriate when sharp surfaces are present.
- Respiratory protection** When particulates/fumes/gases are generated and if exposure limits are exceeded or irritation is experienced, proper approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminat concentrations. Respiratory protection must be provided in accordance with current local

regulations.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Solid	<b>Odor</b>	Odorless
<b>Appearance</b>	Various massive product forms	<b>Odor threshold</b>	Not Applicable
<b>Color</b>	metallic, gray		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>	Not Applicable		
<b>Melting point/freezing point</b>	1430-1540 °C / 2600-2800 °F		
<b>Boiling point / boiling range</b>	-		
<b>Flash point</b>	-		
<b>Evaporation rate</b>	-	Not Applicable	
<b>Flammability (solid, gas)</b>	-	Not flammable in the form of this product as distributed, flammable as finely divided particles or pieces resulting from processing of this product	
		Not Applicable	
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit:</b>	Not Applicable		
<b>Lower flammability limit:</b>	Not Applicable		
<b>Vapor pressure</b>	-	Not Applicable	
<b>Vapor density</b>	-	Not Applicable	
<b>Specific Gravity</b>	7-9		
<b>Water solubility</b>	Insoluble	Insoluble	
<b>Solubility in other solvents</b>	-	Not Applicable	
<b>Partition coefficient</b>	-	Not Applicable	
<b>Autoignition temperature</b>	-	Not Applicable	
<b>Decomposition temperature</b>	-	Not Applicable	
<b>Kinematic viscosity</b>	-	Not Applicable	
<b>Dynamic viscosity</b>	-	Not Applicable	
<b>Explosive properties</b>	Not Applicable		
<b>Oxidizing properties</b>	Not Applicable		
<b><u>Other Information</u></b>			
<b>Softening point</b>	Not Applicable		
<b>Molecular weight</b>	Not Applicable		
<b>VOC Content (%)</b>	Not Applicable		
<b>Density</b>	-		
<b>Bulk density</b>	-		

## 10. STABILITY AND REACTIVITY

**Reactivity**  
Not Applicable

**Chemical stability**  
Stable under normal conditions.

**Possibility of Hazardous Reactions**  
None under normal processing.

**Hazardous polymerization** Hazardous polymerization does not occur.

**Conditions to avoid**  
Dust formation and dust accumulation;

**Incompatible materials**  
Dissolves in hydrofluoric acid. Ignites in the presence of flourine. When heated above 200°C, reacts exothermically with the following: Chlorine, bromine, halocarbons, carbon tetrachloride, carbon tetraflouride, and freon.

**Hazardous Decomposition Products**

When product is subjected to welding, burning, melting, sawing, brazing, grinding, buffing, polishing, or other similar heat-generating processes, the following potentially hazardous airborne particles and/or fumes may be generated: titanium dioxide an IARC Group 2B carcinogen. Hexavalent Chromium (Chromium VI) may cause lung, nasal, and/or sinus cancer. Vanadium pentoxide (V2O5) affects eyes, skin, respiratory system. Soluble molybdenum compounds such as molybdenum trioxide may cause lung irritation.

<b>11. TOXICOLOGICAL INFORMATION</b>
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**Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Not an expected route of exposure for product in massive form.
<b>Eye contact</b>	Not an expected route of exposure for product in massive form.
<b>Skin Contact</b>	Nickel-containing alloys may cause sensitization by skin contact.
<b>Ingestion</b>	Not an expected route of exposure for product in massive form.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Iron 7439-89-6	98,600 mg/kg bw	-	> 0.25 mg/L
Nickel 7440-02-0	> 9000 mg/kg bw	-	-
Chromium 7440-47-3	> 3400 mg/kg bw	-	> 5.41 mg/L
Manganese 7439-96-5	>2000 mg/kg bw	-	>5.14 mg/L
Molybdenum 7439-98-7	> 2000 mg/kg bw	> 2000 mg/kg bw	> 5.10 mg/L
Silicon 7440-21-3	> 5000 mg/kg bw	> 5000 mg/kg bw	> 2.08 mg/L
Aluminum 7429-90-5	15,900 mg/kg bw	-	> 1 mg/L
Copper 7440-50-8	481 mg/kg bw	>2000 mg/kg bw	>5.11 mg/L
Tungsten 7440-33-7	> 2000 mg/kg bw	> 2000 mg/kg bw	> 5.4 mg/L
Titanium 7440-32-6	> 5000 mg/kg bw	-	-
Boron 19287-88-8	-	-	-
Vanadium 7440-62-2	> 2000 mg/kg bw	-	-
Tantalum 7440-25-7	-	-	-
Niobium (Columbium) 7440-03-1	-	> 2000 mg/kg bw	-

**Information on toxicological effects**

**Symptoms** Nickel-containing alloys may cause sensitization by skin contact.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Acute toxicity</b>	Product not classified.
<b>Skin corrosion/irritation</b>	Product not classified.
<b>Serious eye damage/eye irritation</b>	Product not classified.
<b>Sensitization</b>	Nickel-containing alloys may cause sensitization by skin contact.
<b>Germ cell mutagenicity</b>	Product not classified.
<b>Carcinogenicity</b>	Suspected of causing cancer by inhalation. May cause cancer by inhalation.

Chemical Name	ACGIH	IARC	NTP	OSHA
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Nickel 7440-02-0		Group 1 Group 2B	Known Reasonably Anticipated	X
Chromium 7440-47-3		Group 3		

<b>Reproductive toxicity</b>	Product not classified.
<b>STOT - single exposure</b>	Product not classified.
<b>STOT - repeated exposure</b>	Causes disorder and damage to the respiratory track if inhaled.
<b>Aspiration hazard</b>	Product not classified.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

This product as shipped is not classified for aquatic toxicity. This product contains a chemical which is listed as a severe marine pollutant according to DOT

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Iron 7439-89-6	-	The 96 h LC50 of 50% iron oxide black in water to <i>Danio rerio</i> was greater than 10,000 mg/L.	The 3 h EC50 of iron oxide for activated sludge was greater than 10,000 mg/L.	The 48 h EC50 of iron oxide to <i>Daphnia magna</i> was greater than 100 mg/L.
Nickel 7440-02-0	NOEC/EC10 values range from 12.3 µg/l for <i>Scenedesmus accuminatus</i> to 425 µg/l for <i>Pseudokirchneriella subcapitata</i> .	The 96h LC50s values range from 0.4 mg Ni/L for <i>Pimephales promelas</i> to 320 mg Ni/L for <i>Brachydanio rerio</i> .	The 30 min EC50 of nickel for activated sludge was 33 mg Ni/L.	The 48h LC50s values range from 0.013 mg Ni/L for <i>Ceriodaphnia dubia</i> to 4970 mg Ni/L for <i>Daphnia magna</i> .
Chromium 7440-47-3	-	-	-	-
Manganese 7439-96-5	The 72 h EC50 of manganese to <i>Desmodesmus subspicatus</i> was 2.8 mg of Mn/L.	The 96 h LC50 of manganese to <i>Oncorhynchus mykiss</i> was greater than 3.6 mg of Mn/L.	The 3 h EC50 of manganese for activated sludge was greater than 1000 mg/L.	The 48 h EC50 of manganese to <i>Daphnia magna</i> was greater than 1.6 mg/L.
Molybdenum 7439-98-7	The 72 h EC50 of sodium molybdate dihydrate to <i>Pseudokirchneriella subcapitata</i> was 362.9 mg of Mo/L.	The 96 h LC50 of sodium molybdate dihydrate to <i>Pimephales promelas</i> was 644.2 mg/L.	The 3 h EC50 of molybdenum trioxide for activated sludge was 820 mg/L.	The 48 h LC50 of sodium molybdate dihydrate to <i>Ceriodaphnia dubia</i> was 1,015 mg/L. The 48 h LC50 of sodium molybdate dihydrate to <i>Daphnia magna</i> was greater than 1,727.8 mg/L.
Silicon 7440-21-3	The 72 h EC50 of sodium metasilicate pentahydrate to <i>Pseudokirchnerella subcapitata</i> was greater than 250 mg/L.	-	-	-
Aluminum 7429-90-5	The 96-h EC50 values for reduction of biomass of <i>Pseudokirchneriella subcapitata</i> in AAP-Medium at pH 6, 7, and 8 were estimated as 20.1, 5.4, and 150.6 µg/L, respectively, for dissolved Al.	The 96 h LC50 of aluminum to <i>Oncorhynchus mykiss</i> was 7.4 mg of Al/L at pH 6.5 and 14.6 mg of Al/L at pH 7.5	-	The 48-hr LC50 for <i>Ceriodaphnia dubia</i> exposed to Aluminium chloride increased from 0.72 to greater than 99.6 mg/L with water hardness increasing from 25 to 200 mg/L.
Copper 7440-50-8	The 72 h EC50 values of copper chloride to <i>Pseudokirchneriella subcapitata</i> ranged between 30 µg/L (pH 7.02, hardness 250 mg/L CaCO <sub>3</sub> , DOC 1.95 mg/L) and 824 µg/L (pH 6.22, hardness 100 mg/L CaCO <sub>3</sub> , DOC 15.8 mg/L).	The 96-hr LC50 for <i>Pimephales promelas</i> exposed to Copper sulfate ranged from 256.2 to 38.4 µg/L with water hardness increasing from 45 to 255.7 mg/L.	The 24 h NOEC of copper chloride for activated sludge ranged from 0.32 to 0.64 mg of Cu/L.	The 48 h LC50 values for <i>Daphnia magna</i> exposed to copper in natural water ranged between 33.8 µg/L (pH 6.1, hardness 12.4 mg/L CaCO <sub>3</sub> , DOC 2.34 mg/L) and 792 µg/L (pH 7.35, hardness 139.7 mg/L CaCO <sub>3</sub> , DOC 22.8 mg/L).
Tungsten	The 72 h EC50 of sodium	The 96 h LC50 of sodium	The 30 min EC50 of sodium	The 48 h EC50 of sodium

7440-33-7	tungstate to Pseudokirchnerella subcapitata was 31.0 mg of W/L.	tungstate to Danio rerio was greater than 106 mg of W/L.	tungstate for activated sludge were greater than 1000 mg/L.	tungstate to Daphnia magna was greater than 96 mg of W/L.
Titanium 7440-32-6	The 72 h EC50 of titanium dioxide to Pseudokirchnerella subcapitata was 61 mg of TiO2/L.	The 96 h LC50 of titanium dioxide to Cyprinodon variegatus was greater than 10,000 mg of TiO2/L. The 96 h LC50 of titanium dioxide to Pimephales promelas was greater than 1,000 mg of TiO2/L .	The 3 h EC50 of titanium dioxide for activated sludge were greater than 1000 mg/L.	The 48 h EC50 of titanium dioxide to Daphnia Magna was greater than 1000 mg of TiO2/L.
Boron 19287-88-8	-	-	-	-
Vanadium 7440-62-2	The 72 h EC50 of vanadium pentoxide to Desmodosmus subspicatus was 2,907 ug of V/L.	The 96 h LC50 of vanadium pentoxide to Pimephales promelas was 1,850 ug of V/L .	The 3 h EC50 of sodium metavanadate for activated sludge was greater than 100 mg/L.	The 48 h EC50 of sodium vanadate to Daphnia magna was 2,661 ug of V/L.
Tantalum 7440-25-7	-	-	-	-
Niobium (Columbium) 7440-03-1	-	-	-	-

**Persistence and degradability**

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**Bioaccumulation**

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**Other adverse effects**

This product as shipped is not classified for environmental endpoints. However, when subjected to sawing or grinding, particles may be generated that are classified for aquatic acute or aquatic chronic toxicity.

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

None anticipated.

Chemical Name	RCRA - D Series Wastes
Chromium 7440-47-3	5.0 mg/L regulatory level

This product contains one or more substances that are listed with the State of California as a hazardous waste.

### 14. TRANSPORT INFORMATION

**DOT**

Not regulated



## 15. REGULATORY INFORMATION

### International Inventories

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372: Chromium (Cr)

Chemical Name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Nickel - 7440-02-0	7440-02-0	0-46	0.1
Chromium - 7440-47-3	7440-47-3	10-30	1.0
Manganese - 7439-96-5	7439-96-5	0-10	1.0
Copper - 7440-50-8	7440-50-8	0-4.0	1.0

#### **SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

#### **CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Nickel 7440-02-0		X	X	
Chromium 7440-47-3		X	X	
Copper 7440-50-8		X	X	

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs
Nickel 7440-02-0	100 lb
Chromium 7440-47-3	5000 lb
Copper	5000 lb

7440-50-8

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Nickel - 7440-02-0	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Nickel 7440-02-0	X	X	X
Chromium 7440-47-3	X	X	X
Manganese 7439-96-5	X	X	X
Molybdenum 7439-98-7	X	X	X
Silicon 7440-21-3	X	X	X
Copper 7440-50-8	X	X	X
Aluminum 7429-90-5	X	X	X
Tungsten 7440-33-7	X	X	X
Titanium 7440-32-6	X		
Vanadium 7440-62-2	X	X	X
Tantalum 7440-25-7	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not Applicable

**16. OTHER INFORMATION**

**NFPA** Health hazards 1 Flammability 0 Instability 0 Physical and Chemical Properties -

**HMIS** Health hazards 2\* Flammability 0 Physical hazards 0 Personal protection X

Chronic Hazard Star Legend

\* = Chronic Health Hazard

Issue Date 28-May-2015

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**Revision Note**

Updated to comply with GHS

**Note:**

The information provided in this safety data sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**