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

GHS product identifier

Product Name Chromium-Nickel-Manganese-Copper Alloyed Stainless Steel grades

Other means of identification

Synonyms 204Cu. This includes all listed grades with letter prefixes and suffixes as well as PRODEC® suffix.

Recommended use of the chemical and restrictions on use

Recommended Use Solid stainless steel products, various forms, and uses

Uses advised against No information available

Supplier's details

Supplier Address
Outokumpu Stainless Bar, LLC
3043 Crenshaw Parkway
Richburg, SC 29729
TEL: 1-888-458-4600; 1-803-789-5383

Outokumpu Stainless USA, LLC
One Steel Drive
Calvert, AL 36513
TEL: 1-251-829-3600

Outokumpu Mexinox S.A de C.V
AV. Industrias No. 4100
Zona Industrial 1a. Sección
78395, San Luis Potosí, México
TEL: +52+444+826-5100

Emergency telephone number

Emergency Telephone Number 251-829-3600

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

Solid metallic products are generally classified as “articles” and do not constitute hazardous materials in solid form. However, downstream use of the article could result in some hazardous elements contained in these products to be emitted under certain processing conditions such as but not limited to: burning, melting, cutting, sawing, brazing, grinding, machining, milling, and welding. The classification given below pertains to these alloys when used during these processes.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Oral Toxicity</td>
<td>Category 4</td>
</tr>
<tr>
<td>Respiratory Sensitization</td>
<td>Category 1</td>
</tr>
<tr>
<td>Skin Sensitization</td>
<td>Category 1</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 1B</td>
</tr>
</tbody>
</table>
Specific Target Organ Toxicity (Repeated Exposure) Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word Danger
Hazard Statements
- Harmful if swallowed
- May cause allergy or asthma symptoms or breathing difficulties if inhaled
- May cause an allergic skin reaction
- May cause cancer
- Causes damage to organs through prolonged or repeated exposure

Appearance Varying from dull very light grey, to shiny metallic light grey to bright mirror-finish
Physical State Solid.
Odor Odorless

Precautionary Statements

Prevention
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- In case of inadequate ventilation wear respiratory protection
- Contaminated work clothing should not be allowed out of the workplace
- Do not breathe dust/fume/gas/mist/vapors/spray

General Advice
- IF exposed or concerned: Get medical attention/advice

Skin
- IF ON SKIN: Wash with plenty of soap and water
- If skin irritation or rash occurs: Get medical advice/attention
- Wash contaminated clothing before reuse

Inhalation
- IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

Ingestion
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- Rinse mouth

Storage
- Store in accordance with local/regional/national regulations.

Disposal
- Dispose of in accordance with local/regional/national regulations.
Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information
No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Synonyms
204Cu. This includes all listed grades with letter prefixes and suffixes as well as PRODEC® suffix.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>7439-89-6</td>
<td>Balance</td>
<td>*</td>
</tr>
<tr>
<td>Chromium</td>
<td>7440-47-3</td>
<td>15.5-17.5</td>
<td>*</td>
</tr>
<tr>
<td>Manganese</td>
<td>7439-96-5</td>
<td>6.5-9</td>
<td>*</td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
<td>2-4</td>
<td>*</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
<td>1.5-3.5</td>
<td>*</td>
</tr>
<tr>
<td>Silicon</td>
<td>7440-21-3</td>
<td>0-1</td>
<td>*</td>
</tr>
<tr>
<td>Cobalt</td>
<td>7440-48-4</td>
<td>0-0.6</td>
<td>*</td>
</tr>
<tr>
<td>Titanium</td>
<td>7440-32-6</td>
<td>0-0.5</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

#### Description of necessary first-aid measures

**General Advice**

In its solid form stainless steel does not present an inhalation, absorption, or ingestion hazard. Grinding, polishing, abrasive blasting, hot rolling, hot forging, thermal cutting, or welding may produce stainless steel dust or fumes containing complex or mixed oxides (spinels) of its components. Metal dust particles may cause eye, skin and/or respiratory system irritation. The below information is for these instances.

**Eye Contact**
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Skin Contact**
Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician.

**Inhalation**
Move to fresh air. If breathing is difficult, give oxygen. Consult a physician.

**Ingestion**
Not an expected route of exposure. If swallowed: Get medical attention.

**Most important symptoms/effects, acute and delayed**

**Most Important Symptoms/Effects**
Coughing and/or wheezing. Difficulty in breathing. Irritation. May cause allergic skin reaction.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to Physician**
May cause sensitization by inhalation and skin contact. Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**
None
Specific Hazards Arising from the Chemical
Avoid dust formation. Dust can form an explosive mixture in air. May cause sensitization by inhalation and skin contact.

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) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions
Avoid dust formation. Avoid inhalation of dust. Ensure adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Environmental Precautions
Not applicable to steel in solid state. Follow applicable federal, state and local regulations

Methods and materials for containment and cleaning up

Methods for Containment
Prevent further leakage or spillage if safe to do so. Cover dust spill with plastic sheet or tarp to minimize spreading.

Methods for Cleaning Up
Take up mechanically and collect in suitable container for disposal. Avoid dust formation. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling
Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Avoid breathing dust. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage
Store in accordance with local regulations.

Incompatible Products
May react in contact with strong acids to release gaseous acid decomposition products, e.g. hydrogen, oxides of nitrogen. Use of strong oxidizers (high pH) on stainless steel may cause Cr(VI) compounds to form at ambient temperatures. Decomposition: Fumes generated during welding, brazing, or thermal cutting may contain: chromium compounds, including hexavalent chromium Cr(VI); nickel; manganese; iron; molybdenum; and silicon compounds.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines
There are no occupational exposure limits for stainless steels. Occupational exposure limits apply to some components resulting from grinding, polishing, abrasive blasting, hot rolling, hot forging, thermal cutting, or welding which may produce stainless steel dust or fumes.
Manganese
7439-96-5
TWA: 0.2 mg/m³
(vacated) TWA: 1 mg/m³ fume
(vacated) STEL: 3 mg/m³ fume
Ceiling: 5 mg/m³ fume
IDLH: 500 mg/m³
TWA: 1 mg/m³ fume
STEL: 3 mg/m³

Copper
7440-50-8
TWA: 0.2 mg/m³ fume
TWA: 0.1 mg/m³ dust and mist
(vacated) TWA: 0.1 mg/m³ Cu dust, fume, mist
(CEILING) TWA: 0.1 mg/m³ fume
IDLH: 100 mg/m³ dust, fume and mist
TWA: 1 mg/m³ dust and mist
TWA: 0.1 mg/m³ fume

Nickel
7440-02-0
TWA: 1.5 mg/m³
TWA: 1 mg/m³
(vacated) TWA: 1 mg/m³
IDLH: 10 mg/m³
TWA: 0.015 mg/m³

Silicon
7440-21-3
TWA: 7 mg/m³
TWA: 0.1 mg/m³ dust and fume
(vacated) TWA: 0.05 mg/m³ dust and fume
TWA: 10 mg/m³ total dust
TWA: 5 mg/m³ total dust
TWA: 5 mg/m³ resolvable fraction
(vacated) TWA: 5 mg/m³ total dust
TWA: 5 mg/m³ resolvable fraction

Cobalt
7440-48-4
TWA: 0.02 mg/m³
TWA: 0.1 mg/m³ dust and fume
(vacated) TWA: 0.05 mg/m³ dust and fume
IDLH: 20 mg/m³ dust and fume
TWA: 0.05 mg/m³ dust and fume

Appropriate engineering controls

Engineering Measures
Ensure adequate ventilation, especially in confined area (i.e. showers, eyewash stations, etc.).

Individual protection measures, such as personal protective equipment

Eye/Face Protection
When processing the metal alloy wear: Tightly fitting safety goggles.

Skin and Body Protection
When processing the metal alloy: Wear protective gloves/clothing.

Respiratory Protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State
Solid

Appearance
Varying from dull very light grey, to shiny metallic light grey to bright mirror-finish

Odor
Odorless

Odor Threshold
No information available

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks/ - Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>1370-1520 °C / 2498-2768 °F</td>
<td>None known</td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>upper flammability limit</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>lower flammability limit</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
<td>None known</td>
</tr>
</tbody>
</table>
Viscosity | No data available | None known
---|---|---
Flammable Properties | Not flammable | 
Explosive Properties | No data available | 
Oxidizing Properties | No data available | 
Other information | 
VOC Content (%) | No data available | 

10. STABILITY AND REACTIVITY

Reactivity
No data available.

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoid
Dust formation.

Incompatible materials
May react in contact with strong acids to release gaseous acid decomposition products, e.g. hydrogen, oxides of nitrogen. Use of strong oxidizers (high pH) on stainless steel may cause Cr(VI) compounds to form at ambient temperatures. Decomposition: Fumes generated during welding, brazing, or thermal cutting may contain: chromium compounds, including hexavalent chromium Cr(VI); nickel; manganese; iron; molybdenum; and silicon compounds.

Hazardous decomposition products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information
In its solid form stainless steel does not present an inhalation, absorption, or ingestion hazard. Grinding, polishing, abrasive blasting, hot rolling, hot forging, thermal cutting, or welding may produce stainless steel dust or fumes containing complex or mixed oxides (spinels) of its components. Metal dust particles may cause eye, skin and/or respiratory system irritation. The below information is for these instances.

Inhalation
May cause irritation of respiratory tract. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Eye Contact
Contact with eyes may cause irritation.

Skin Contact
Contact with dust can cause mechanical irritation or drying of the skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion
May cause irritation
### Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation
--- | --- | --- | ---
Iron | 984 mg/kg (Rat) | - | -
Manganese | 9 g/kg (Rat) | - | -
Nickel | > 9000 mg/kg (Rat) | - | -
Silicon | 3160 mg/kg (Rat) | - | -
Cobalt | 6170 mg/kg (Rat) | - | > 10 mg/L (Rat) 1 h

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms**

No information available.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Sensitization**

May cause sensitization by inhalation and skin contact

**Mutagenic Effects**

No information available.

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nickel</td>
<td></td>
<td>Group 2B&lt;br&gt;Group 1</td>
<td>Reasonably Anticipated</td>
<td>X</td>
</tr>
<tr>
<td>Cobalt</td>
<td>A3</td>
<td>Group 2A&lt;br&gt;Group 2B</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**Reproductive Toxicity**

No information available.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

Causes damage to organs through prolonged or repeated exposure.

**Chronic Toxicity**

Elevated temperature processing such as welding and plasma arc cutting may release hazardous fumes. Overexposure to metal fumes may cause pulmonary edema (fluid in the lungs) and methemoglobinemia. May also cause pulmonary fibrosis and lung cancer. Chronic exposure to manganese may cause impairment to the central nervous system including sluggishness, sleepiness, muscle weakness, loss of facial muscle control, edema, emotional disturbances, spastic gait, and falling.

**Target Organ Effects**

Respiratory system. Skin.

**Aspiration Hazard**

No information available.

**Numerical measures of toxicity**

*Product*

The following values are calculated based on chapter 3.1 of the GHS document:

**LD50 Oral**

967 mg/kg; Acute toxicity estimate 7500

---

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Daphnia Magna (Water Flea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>-</td>
<td>LC50 96 h: = 0.56 mg/L semi-static (Cyprinus carpio)&lt;br&gt;LC50 96 h: = 13.6 mg/L static (Morone saxatilis)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Copper
EC50 96 h: 0.031 - 0.054 mg/L static (Pseudokirchneriella subcapitata)
EC50 72 h: 0.0426 - 0.0535 mg/L static (Pseudokirchneriella subcapitata)
LC50 96 h: 0.0068 - 0.0156 mg/L (Pimephales promelas)
LC50 96 h: < 0.3 mg/L static (Pimephales promelas)
LC50 96 h: = 0.052 mg/L flow-through (Oncorhynchus mykiss)
LC50 96 h: = 0.112 mg/L flow-through (Poecilia reticulata)
LC50 96 h: = 0.2 mg/L flow-through (Pimephales promelas)
LC50 96 h: = 0.3 mg/L semi-static (Cyprinus carpio)
LC50 96 h: = 0.8 mg/L static (Cyprinus carpio)
LC50 96 h: = 1.25 mg/L static (Lepomis macrochirus)

Nickel
EC50 96 h: 0.174 - 0.311 mg/L static (Pseudokirchneriella subcapitata)
EC50 72 h: = 0.18 mg/L static (Pseudokirchneriella subcapitata)
LC50 96 h: = 1.3 mg/L semi-static (Cyprinus carpio)
LC50 96 h: = 10.4 mg/L static (Cyprinus carpio)
LC50 96 h: > 100 mg/L flow-through (Brachydanio rerio)

Cobalt
- 
LC50 96 h: > 100 mg/L static (Brachydanio rerio)

 Persistence and Degradability  No information available.
 Bioaccumulation  No information available.
 Other Adverse Effects  No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods  Recover or recycle if possible. Dispose of in accordance with federal, state, and local regulations.

Contaminated Packaging  Dispose of in accordance with federal, state, and local regulations.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>RCRA</th>
<th>RCRA - Basis for Listing</th>
<th>RCRA - D Series Wastes</th>
<th>RCRA - U Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium - 7440-47-3</td>
<td></td>
<td>Included in waste streams: F032, F034, F035, F037, F038, F039</td>
<td>5.0 mg/L regulatory level</td>
<td></td>
</tr>
<tr>
<td>Nickel - 7440-02-0</td>
<td></td>
<td>Included in waste streams: F006, F039</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td>Toxic</td>
</tr>
<tr>
<td></td>
<td>Corrosive</td>
</tr>
<tr>
<td></td>
<td>Ignitable</td>
</tr>
<tr>
<td>Manganese</td>
<td>Ignitable powder</td>
</tr>
<tr>
<td>Copper</td>
<td>Toxic</td>
</tr>
<tr>
<td>Nickel</td>
<td>Toxic powder</td>
</tr>
<tr>
<td></td>
<td>Ignitable powder</td>
</tr>
<tr>
<td>Cobalt</td>
<td>Toxic powder</td>
</tr>
<tr>
<td></td>
<td>Ignitable powder</td>
</tr>
<tr>
<td>Titanium</td>
<td>Ignitable powder</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT  Not regulated
15. REGULATORY INFORMATION

International Inventories

| Legend | TSCA - United States Toxic Substances Control Act Section 8(b) Inventory | DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List |

TSCA  | Complies |
DSL   | Complies |

U.S. Federal Regulations

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:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td>7440-47-3</td>
<td>15.5-17.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Manganese</td>
<td>7439-96-5</td>
<td>6.5-9</td>
<td>1.0</td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
<td>2-4</td>
<td>1.0</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
<td>1.5-3.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Cobalt</td>
<td>7440-48-4</td>
<td>0-0.6</td>
<td>0.1</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

- Acute Health Hazard: No
- Chronic Health Hazard: No
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: No

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):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nickel</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>Extremely Hazardous Substances RQs</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td>RQ 5000 lb final RQ</td>
<td>RQ 2270 kg final RQ</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>RQ 5000 lb final RQ</td>
<td>RQ 2270 kg final RQ</td>
<td></td>
</tr>
<tr>
<td>Nickel</td>
<td>RQ 100 lb final RQ</td>
<td>RQ 45.4 kg final RQ</td>
<td></td>
</tr>
</tbody>
</table>

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:
### Chemical Name | CAS-No | California Prop. 65
---|---|---
Nickel | 7440-02-0 | Carcinogen
Cobalt | 7440-48-4 | Carcinogen

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Manganese</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Copper</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Nickel</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Silicon</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Cobalt</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Titanium</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### U.S. EPA Label Information

**EPA Pesticide Registration Number** Not applicable

### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

**Prepared By**

Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

**Issuing Date**
26-Nov-2012

**Revision Date**
26-Nov-2012

**Revision Note**
Initial Release.

**General Disclaimer**

The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

---

End of Safety Data Sheet