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

GHS product identifier

Product Name Chromium Alloyed Stainless Steel grades

Other means of identification

Synonyms 405, 409, 410, 416, 420, 429, 430, 434, 439, 441, and 444. 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>Acute Oral Toxicity</th>
<th>Category 4</th>
</tr>
</thead>
<tbody>
<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>
GHS Label elements, including precautionary statements

**Emergency Overview**

<table>
<thead>
<tr>
<th>Signal Word</th>
<th>Danger</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hazard Statements</strong></td>
<td></td>
</tr>
<tr>
<td>• Harmful if swallowed</td>
<td></td>
</tr>
<tr>
<td>• May cause allergy or asthma symptoms or breathing difficulties if inhaled</td>
<td></td>
</tr>
<tr>
<td>• May cause an allergic skin reaction</td>
<td></td>
</tr>
<tr>
<td>• May cause cancer</td>
<td></td>
</tr>
</tbody>
</table>

**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
- Avoid breathing dust/fume/gas/mist/vapors/spray
- In case of inadequate ventilation wear respiratory protection
- Contaminated work clothing should not be allowed out of the workplace

**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
405, 409, 410, 416, 420, 429, 430, 434, 439, 441, and 444. 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>10.5-19.5</td>
<td>*</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>7439-98-7</td>
<td>0.2-5</td>
<td>*</td>
</tr>
<tr>
<td>Manganese</td>
<td>7439-96-5</td>
<td>0.125</td>
<td>*</td>
</tr>
<tr>
<td>Silicon</td>
<td>7440-21-3</td>
<td>0.1</td>
<td>*</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
<td>0.75</td>
<td>*</td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
<td>0.6</td>
<td>*</td>
</tr>
<tr>
<td>Cobalt</td>
<td>7440-48-4</td>
<td>0.6</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

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.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molybdenum</td>
<td>TWA: 10 mg/m³ inhalable fraction</td>
<td>(vacated) TWA: 10 mg/m³</td>
<td>IDLH: 5000 mg/m³</td>
</tr>
<tr>
<td>7439-98-7</td>
<td>TWA: 3 mg/m³ respirable fraction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Manganese 7439-96-5 TWA: 0.2 mg/m³ (vacated) TWA: 1 mg/m³ fume (vacated) STEL: 3 mg/m³ fume (vacated) Ceiling: 5 mg/m³ fume Ceiling: 5 mg/m³ fume IDLH: 500 mg/m³ TWA: 1 mg/m³ fume STEL: 3 mg/m³

Silicon 7440-21-3 TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 10 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction TWA: 10 mg/m³ total dust TWA: 5 mg/m³ respirable dust

Nickel 7440-02-0 TWA: 1.5 mg/m³ (vacated) TWA: 1 mg/m³ (vacated) TWA: 5 mg/m³ fume IDLH: 10 mg/m³ TWA: 0.015 mg/m³

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

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>
<tr>
<td>Viscosity</td>
<td>No data available</td>
<td>None known</td>
</tr>
</tbody>
</table>
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 (spinel) 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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>984 mg/kg</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
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>Group 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nickel</td>
<td>Group 2B</td>
<td>Group 1</td>
<td>Reasoneably Anticipated</td>
<td>X</td>
</tr>
<tr>
<td>Cobalt</td>
<td>A3</td>
<td>Group 2A</td>
<td>Group 2B</td>
<td>X</td>
</tr>
</tbody>
</table>

Reproductive Toxicity
No information available.

STOT - single exposure
No information available.

STOT - repeated exposure
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 830 mg/kg; Acute toxicity estimate

12. ECOTOLOGICAL 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)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50 96 h: = 13.6 mg/L static (Morone saxatilis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nickel</td>
<td>EC50 96 h: 0.174 - 0.311 mg/L static (Pseudokirchneriella subcapitata)</td>
<td>LC50 96 h: = 1.3 mg/L semi-static (Cyprinus carpio)</td>
<td>-</td>
<td>EC50 48 h: = 1 mg/L Static (Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td>EC50 72 h: = 0.18 mg/L (Pseudokirchneriella subcapitata)</td>
<td>LC50 96 h: = 10.4 mg/L static (Cyprinus carpio)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50 96 h: = 100 mg/L (Brachydanio rerio)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cobalt</td>
<td>-</td>
<td>LC50 96 h: &gt; 100 mg/L static (Brachydanio rerio)</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)

EC50 48 h: = 0.03 mg/L Static (Daphnia magna)

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>Included in waste streams: F032, F034, F035, F037, F038, F039</td>
<td>5.0 mg/L regulatory level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nickel - 7440-02-0 (hazardous constituent - no waste number)</td>
<td>Included in waste streams: F006, F039</td>
<td></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 Corrosive Ignitable</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>Ignitable powder</td>
</tr>
<tr>
<td>Manganese</td>
<td>Ignitable powder</td>
</tr>
<tr>
<td>Nickel</td>
<td>Toxic Ignitable powder</td>
</tr>
<tr>
<td>Copper</td>
<td>Toxic Ignitable powder</td>
</tr>
<tr>
<td>Cobalt</td>
<td>Toxic Ignitable powder</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
Not regulated
15. REGULATORY INFORMATION

International Inventories

TSCA  Complies
DSL  Complies

Legend

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

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>10.5-19.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Manganese</td>
<td>7439-96-5</td>
<td>0-1.25</td>
<td>1.0</td>
</tr>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
<td>0-0.75</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>Nickel</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper</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></td>
<td></td>
<td>RQ 5000 lb final RQ RQ 2270 kg final RQ</td>
</tr>
<tr>
<td>Nickel</td>
<td>100 lb</td>
<td></td>
<td>RQ 100 lb final RQ RQ 45.4 kg final RQ</td>
</tr>
<tr>
<td>Copper</td>
<td>5000 lb</td>
<td></td>
<td>RQ 5000 lb final RQ RQ 2270 kg final RQ</td>
</tr>
</tbody>
</table>

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>Cobalt</td>
<td>7440-48-4</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

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></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></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>
</tbody>
</table>
16. OTHER INFORMATION

NFPA
 Health Hazard 0  Flammability 0  Instability 0  Physical and Chemical Hazards

HMIS
 Health Hazard 0  Flammability 0  Physical Hazard 0  Personal Protection X

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End of Safety Data Sheet