\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**MANUFACTURER: HEYCO METALS INC.**

**ADDRESS**: 1069 Stinson Drive, Reading, PA 19605

**EMERGENCY PHONE**: 610-926-4131 Fax: 610-926-4134

[*www.heycometals.com*](http://www.heycometals.com)

IMPORTANT: Read this SDS prior to handling, processing or disposing of this product. Pass this information to employees or anyone using this product. Where users or customers of this product are changing its characteristics in any way by further processing, a new SDS must be generated incorporating the changes made.

**PRODUCT NAME**:

**Austenitic (Chromium-Nickel) Stainless Steels**

UNS S30100 (T-301)

UNS S30200 (T-302)

UNS S30400 (T-304)

UNS S30403 (T-304-L)

UNS S30500 (T-305)

UNS S31600 (T-316)

UNS S31603 (T-316-L)

UNS S32100 (T-321)

**Ferritic (Chromium) Stainless Steels**

UNS S43000 (T-430)

**Semi-Austenitic (Precipitation Hardening) Stainless Steels**

UNS S17700 (17-7)

These alloys are widely used because of their excellent combination of strength, corrosion resistance, and thermal resistance lend themselves to a wide range of fabrication methods. For precision strip and sheet, common uses include appliance, industrial, medical, instrumentation, electrical devices, transportation, aerospace, fasteners, springs among many others.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 2: HAZARDS IDENTIFICATION**

**General Hazard Statement:** Solid metallic products are generally classified as “articles” and do not constitute a hazardous materials in solid form under the definitions of the OSHA Hazard Communication Standard (29 CFR 1910.1200). Any articles manufactured from these solid products would be generally classified as non-hazardous. However some hazardous elements contained in these products can be emitted under certain processing conditions such as but not limited to: burning, melting, cutting, sawing, brazing, grinding, machining, milling, and welding. Products in the solid state present no fire or explosion hazard. Small chips, fines, and dust may ignite readily, though. The following classification information is for the hazardous elements which may be released during processing.

**GHS Classification:**

Serious Eye Damage/Irritation - Category 2B

Respiratory Sensitizer - Category 1

Skin Sensitizer - Category 1

Germ Cell Mutagenicity - Category 2

Carcinogenicity - Category 1B

Toxic to reproduction - Category 1B

Specific target organ toxicity - Single exposure - Category 1 (kidneys, respiratory system)

Specific target organ toxicity - Repeated exposure - Category 1 (respiratory system, skin)

Hazardous to aquatic environment - Acute Hazard - Category 1

Hazardous to aquatic environment - Chronic Hazard - Category 1

**GHS LABEL ELEMENTS**

**Symbol(s)**

  

**Signal Word**

Danger

**Hazard Statements**

Causes eye irritation

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

Suspected of causing genetic defects

Suspected of causing cancer

Causes damage to organs (kidneys, respiratory system)

Causes damage to organs through prolonged or repeated exposure (respiratory system)

Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

**Precautionary Statements**

**Prevention**

Do not breathe 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.

Wash thoroughly after handling

Wear protective gloves

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Do not eat, drink or smoke when using this product.

Avoid release to the environment

**Response**

IF exposed or concerned: Get medical advice/attention

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

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists get medical advice/attention.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

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.

If exposed or concerned: Get medical advice/attention.

Collect spillage

**Storage**

Store locked up

**Disposal**

Dispose of contents/container in accordance with local/regional/national/international regulations.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SECTION 3: COMPOSITION/INFORMATION, INGREDIENTS**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **Chemical Name** | **CAS-No** | **Weight %** |
| Iron | 7439-89-6 | Balance |
| Nickel | 7440-02-0 |  0.75-37 |
| Chromium | 7440-47-3 | 11.5- 28 |
| Silicon | 7440-21-3 | 0-2 |
| Manganese | 7439-96-5 | 0-2 |
| Molybdenum | 7439-98-7 | 0- 6.5 |
| Titanium | 7440-32-6 | 0-0.7 |
| Copper | 7440-50-8 | 0-0.6 |
| Cobalt | 7440-48-4 | 0-1.0 |
| Aluminum | 7429-90-5 | 0-4 |

Other trace elements may also be present in minute amounts. These small quantities (less than 0.1%) are frequently referred to as “trace” or “residual” elements; generally they originate in the raw material used.

**Footnote:**

The product may have a light coating of oil to prevent corrosion.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 4: FIRST AID MEASURES**

**First Aid: Eyes**

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Consult a physician.

**First Aid: Skin**

Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

**First Aid: Ingestion**

Do NOT induce vomiting. Call a physician or Poison Control Center immediately. Drink plenty of water. Never give anything by mouth to an unconscious person.

**First Aid: Inhalation**

Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Consult a physician.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 5: FIRE-FIGHTING MEASURES**

**General Fire Hazards**

See Section 9 for Flammability Properties.

This product does not present fire or explosion hazards as shipped. Small chips, fines, and dust from processing may be explosive or readily ignitable.

**Hazardous Combustion Products**

Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact.

**Extinguishing Media**

Class D extinguishing agents on fines, dust or molten metal. Use coarse water spray on chips and fines.

**Unsuitable Extinguishing Media**

DO NOT use halogenated extinguishing agents on small chips or fines. DO NOT use water for fires involving molten metal. These fire extinguishing agents will react with burning material.

**Fire Fighting Equipment/Instructions**

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

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SECTION 6 – ACCIDENTIAL RELEASE MEASURES**

**General**

No notable environmental hazard is anticipated from the “release” of this material in bulk solid form on land. This material should be recovered from aquatic environments.

**Recovery and Neutralization**

Avoid dust formation. Collect scrap for recycling.

**Materials and Methods for Clean-Up**

If product is molten, contain the flow using dry sand or salt flux as a dam. All tools and containers which come in contact with molten metal must be preheated or specially coated and rust free. Allow the spill to cool before remelting as scrap.

**Emergency Measures**

Keep people away from and upwind of spill/leak.

**Personal Precautions and Protective Equipment**

Wear appropriate protective clothing and respiratory protection for the situation.

**Environmental Precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

**Prevention of Secondary Hazards**

None

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 7: HANDLING AND STORAGE**

**Handling, storage and decontamination procedures:**

Avoid contact with skin, eyes, and clothing. Wear personal protective equipment when handling. Avoid dust creation. Keep material dry. Avoid contact with sharp edges, corners, hot metal. Good housekeeping must be practiced during storage, transfer, handling and use to avoid excessive dust accumulation.

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.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 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.

|  |  |  |  |
| --- | --- | --- | --- |
| **Chemical Name** | **ACGIH TLV** | **OSHA PEL** | **NIOSH IDLH** |
| Nickel 7440-02-0 | TWA: 1.5 mg/m3 | TWA: 1 mg/m3 (vacated) TWA: 1 mg/m3 | IDLH: 10 mg/m3TWA: 0.015 mg/m3 |
| Silicon 7440-21-3 | - | TWA: 15 mg/m3 total dust TWA: 5 mg/m3 respirable fraction (vacated) TWA: 10 mg/m3 totaldust(vacated) TWA: 5 mg/m3 respirable fraction | TWA: 10 mg/m3 total dust TWA: 5 mg/m3 respirable dust |
| 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 Ceiling: 5 mg/m3 fume | IDLH: 500 mg/m3 TWA: 1 mg/m3 fume STEL: 3 mg/m3 |
| Molybdenum 7439-98-7 | TWA: 10 mg/m3 inhalable fractionTWA: 3 mg/m3 respirable fraction | (vacated) TWA: 10 mg/m3 | IDLH: 5000 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 Cudust, fume, mist | IDLH: 100 mg/m3 dust, fume and mistTWA: 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 |
| Aluminum7429-90-5 | TWA:10 mg/m³ (as metal dust)5.0 mg/m³ (as welding fume) | TWA:15 mg/m³ (as total dust, PNOR)5.0 mg/m³ (as respirable fraction,PNOR) |  IDLH:10 mg/m³ (as total dust)5.0 mg/m³ (as respirabledust) |

## 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.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 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** |

## Property pH

**Melting Point/Range Boiling Point/Boiling Range Flash Point**

**Evaporation rate**

**Values**

No data available

1370-1520 °C / 2498-2768 °F

No data available No data available No data available

## Remarks/ - Method

None known None known None known None known None known

**Flammability (solid, gas)** No data available

## Flammability Limits in Air

**upper flammability limit** No data available

**lower flammability limit** No data available

**Vapor Pressure** No data available

**Vapor Density** No data available

**Relative Density** No data available

None known

None known None known None known

## Specific Gravity

0.27-0.30

None known

**Water Solubility** No data available **Solubility in other solvents** No data available **Partition coefficient: n-octanol/water** No data available **Autoignition Temperature** No data available **Decomposition Temperature** No data available **Viscosity** No data available

**Flammable Properties** Not flammable

## Explosive Properties No data available

**Oxidizing Properties** No data available

## Other information

**VOC Content (%)** No data available

None known

None known

None known

None known

None known

None known

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 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.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 11: TOXICOLOGICAL INFORMATION**

## Information on likely routes of exposure

 **Product Information**

**Inhalation**

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 of its components. Metal dust particles may cause eye, skin and/or respiratory system irritation. The below information is for these instances.

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 ) | - | - |
| Nickel | > 9000 mg/kg ( Rat ) | - | - |
| Silicon | = 3160 mg/kg ( Rat ) | - | - |
| Manganese | = 9 g/kg ( Rat ) | - | - |
| Cobalt | = 6170 mg/kg ( Rat ) | - | > 10 mg/L ( Rat ) 1 h |
| Aluminum | Unknown | - |  - |

## 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.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chemical Name** | **ACGIH** | **IARC** | **NTP** | **OSHA** |
| Nickel |  | Group 2B Group 1 | Reasonably Anticipated | X |
| Chromium |  | Group 3 |  |  |
| Cobalt | A3 | Group 2A Group 2B |  | X |

**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 methemaglobinemia. 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. Chronic exposure to aluminum flake has been reported to cause pneumoconiosis in workers. Repeat oral exposure to aluminum results in decrements in neurobehavioral function and development.

**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** 389 mg/kg; Acute toxicity estimate 7500

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 12: ECOLOGICAL INFORMATION**

## Ecotoxicity

Very toxic to aquatic life with long lasting effects.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chemical Name** | **Toxicity to Algae** | **Toxicity to Fish** | **Toxicity to Microorganisms** | **Daphnia Magna (Water Flea)** |
| Iron | - | LC50 96 h: = 0.56 mg/Lsemi-static (Cyprinus carpio) LC50 96 h: = 13.6 mg/Lstatic (Morone saxatilis) | - | - |
| Nickel | EC50 96 h: 0.174 - 0.311mg/L static (Pseudokirchneriella subcapitata)EC50 72 h: = 0.18 mg/L(Pseudokirchneriella subcapitata) | LC50 96 h: = 1.3 mg/Lsemi-static (Cyprinus carpio) LC50 96 h: = 10.4 mg/Lstatic (Cyprinus carpio) LC50 96 h: > 100 mg/L(Brachydanio rerio) | - | EC50 48 h: = 1 mg/L Static (Daphnia magna)EC50 48 h: > 100 mg/L(Daphnia magna) |
| Cobalt | - | LC50 96 h: > 100 mg/L static (Brachydanio rerio) | - | - |
| Copper | EC50 96 h: 0.031 - 0.054mg/L static (Pseudokirchneriella subcapitata)EC50 72 h: 0.0426 - 0.0535mg/L static (Pseudokirchneriella subcapitata) | LC50 96 h: 0.0068 - 0.0156mg/L (Pimephales promelas)LC50 96 h: < 0.3 mg/L static (Pimephales promelas) LC50 96 h: = 0.052 mg/Lflow-through (Oncorhynchus mykiss)LC50 96 h: = 0.112 mg/Lflow-through (Poecilia reticulata)LC50 96 h: = 0.2 mg/Lflow-through (Pimephales promelas)LC50 96 h: = 0.3 mg/Lsemi-static (Cyprinus carpio) LC50 96 h: = 0.8 mg/L static (Cyprinus carpio)LC50 96 h: = 1.25 mg/Lstatic (Lepomis macrochirus) | - | EC50 48 h: = 0.03 mg/LStatic (Daphnia magna) |
| Aluminum | - | LC50 96 h = 0.16 mg/l Rainbow Trout |  | EC50 24 h: = 3.5 mg/lStatic (Daphnia magna) |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| **Persistence and Degradability** | No information available. |
|  |  |  |  |  |
| **Bioaccumulation** |  | No information available. |
|  |  |  |  |  |
| **Other Adverse Effects**  | No information available |

 |  |
|  |  |  |  |  |

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 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.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chemical Name** | **RCRA** | **RCRA - Basis for Listing** | **RCRA - D Series Wastes** | **RCRA - U Series Wastes** |
| Nickel - 7440-02-0 | (hazardous constituent - no waste number) | Included in waste streams: F006, F039 |  |  |
| Chromium - 7440-47-3 |  | Included in waste streams: F032, F034, F035, F037, F038, F039 | 5.0 mg/L regulatory level |  |
| Aluminum – 7429-90-5 |  | Included in waste streams:F006, F019, F039 |  |  |
| **Chemical Name** | **California Hazardous Waste** |
| Nickel | Toxic powder Ignitable powder |
| Chromium | Toxic Corrosive Ignitable |
| Manganese | Ignitable powder |
| Molybdenum | Ignitable powder |
| Titanium | Ignitable powder |
| Copper | Toxic |
| Cobalt | Toxic powder Ignitable powder |

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 14: TRANSPORT INFORMATION**

**DOT** Not regulated

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 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:

|  |  |  |  |
| --- | --- | --- | --- |
| **Chemical Name** | **CAS-No** | **Weight %** | **SARA 313 - Threshold Values %** |
| Nickel | 7440-02-0 | 37 | 0.1 |
| Chromium | 7440-47-3 | 26 | 1.0 |
| Manganese | 7439-96-5 | 2 | 1.0 |
| Cobalt | 7440-48-4 | 0.6 | 0.1 |

## 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):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chemical Name** | **CWA - Reportable Quantities** | **CWA - Toxic Pollutants** | **CWA - Priority Pollutants** | **CWA - Hazardous Substances** |
| Nickel |  | X | X |  |
| Copper |  | 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** | **Extremely Hazardous Substances RQs** | **RQ** |
| Nickel | 100 lb |  | RQ 100 lb final RQ RQ 45.4 kg final RQ |
| Chromium |  |  | RQ 5000 lb final RQ RQ 2270 kg final RQ |
| Copper | 5000 lb |  | RQ 5000 lb final RQ RQ 2270 kg final RQ |

# **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**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Chemical Name** | **New Jersey** | **Massachusetts** | **Pennsylvania** | **Illinois** | **Rhode Island** |
| Nickel | X | X | X | X | X |
| Chromium |  | X |  |  | X |
| Silicon | X | X | X |  | X |
| Manganese | X | X | X | X | X |
| Molybdenum | X | X | X |  | X |
| Titanium | X |  |  |  |  |
| Cobalt | X | X | X | X | X |

## U.S. EPA Label Information

**EPA Pesticide Registration Number** Not applicable

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION 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 |  |

Note: EQ = Equal

AP = Approximately

N/P = Not Applicable

LT = Less Than

UK = Unknown

GT = Greater Than

TR = Trace N/AP = Not Applicable

N/DA = No Data Available

-------------------------------------------------------------------------------------------------------------------

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without warranty, express or implied, regarding its correctness.

The conditions or methods of handling, storage, use and disposal of this product are beyond our

control and may be beyond our knowledge. For this and other reasons, we do not assume

responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage and disposal of the product.

End of Safety Data Sheet