

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

SDS # INTRA-010-EU
 Product Name 316L Stainless Steel Iron Chrome Aluminum (FeCrAl)

Contains Phosphorus, Cobalt, Nickel

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use For industrial use

1.3. Details of the Supplier of the Safety Data Sheet

Supplier

IntraMicron, Inc.
 368 Industry Dr.
 Auburn, AL 36832

For further information, please contact

Contact Point Phone IntraMicron, Inc: 1-334-502-2973
 Email Address pdimick@intramicron.com

1.4. Emergency telephone number

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
 1-800-535-5053 (North America)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 4 - (H302)
Respiratory sensitisation	Category 1 - (H334)
Skin sensitisation	Category 1 - (H317)
Carcinogenicity	Category 1B - (H350)
Specific target organ toxicity — repeated exposure	Category 1 - (H372)
Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label Elements

Product Identifier

Contains Phosphorus, Cobalt, Nickel



Signal Word
 Danger

Hazard statements

H302 - Harmful if swallowed
 H317 - May cause an allergic skin reaction
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 H350 - May cause cancer
 H372 - Causes damage to organs through prolonged or repeated exposure
 H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P260 - Do not breathe dust/fume/gas/mist/vapours/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P273 - Avoid release to the environment
 P281 - Use personal protective equipment as required
 P285 - In case of inadequate ventilation wear respiratory protection
 P308 + P313 - IF exposed or concerned: Get medical advice/attention
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P363 - Wash contaminated clothing before reuse
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
 P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
 P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 P330 - Rinse mouth
 P391 - Collect spillage
 P405 - Store locked up
 P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other Hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 MIXTURES

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Chromium	Present	7440-47-3	10-30	Not determined	Not determined
Nickel	Present	7440-02-0	0-27	Skin Sens. 1 (H317) Carc. 2 (H351) STOT RE 1 (H372)	Not determined
Aluminum	Present	7429-90-5	<10	Flam. Sol. 1 (H228) Water-react. 2 (H261)	Not determined
Yttrium	Present	7440-65-5	<8	Not determined	Not determined
Titanium	Present	7440-32-6	<6	Not determined	Not determined
Molybdenum	Present	7439-98-7	<6	Not determined	Not determined
Manganese	Present	7439-96-5	<6	Not determined	Not determined
Copper	Present	7440-50-8	<6	Not determined	Not determined
Sulfur	Present	7704-34-9	<2	Skin Irrit. 2 (H315)	Not determined
Silicon	Present	7440-21-3	<1	Not determined	Not determined
Phosphorus	Present	7723-14-0	<2	Aquatic Chronic 3 (H412) Flam. Sol. 1 (H228)	Not determined
Cobalt	Present	7440-48-4	<1	Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Aquatic Chronic 4 (H413)	Not determined
Carbon	Present	7440-44-0	<2	Not determined	Not determined

Full text of H- and EUH-phrases: see section 16

Additional Information

Substances without a classification are included, because they have established occupational exposure limits
This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Section 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

General Advice	If exposed or concerned: Get medical advice/attention.
Eye Contact	Rinse immediately with plenty of water and seek medical advice.
Skin Contact	Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call Poison Control or doctor/physician.
Ingestion	Call a poison center or doctor/physician if you feel unwell. Rinse mouth.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms	Causes mild skin irritation. 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.
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4.3. Indication of any Immediate Medical Attention and Special Treatment Needed

Notes to Physician	Treat symptomatically.
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Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media
Water, carbon dioxide or dry chemical ('D' type Extinguisher).

Unsuitable Extinguishing Media
ABC type extinguishers will NOT WORK (fire is too hot).

5.2. Special Hazards Arising from the Substance or Mixture

May burn (hot) if ignited, highly dependent on fiber diameter.

Hazardous combustion products Thermal decomposition or combustion may produce oxides of Nickel, Iron, Copper, Molybdenum and Manganese.

5.3. Advice for Firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions
Use personal protective equipment as required.

For Emergency Responders

Use personal protection recommended in Section 8.

6.2. Environmental Precautions

See Section 12 for additional Ecological Information.

6.3. Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Sweep up spills and place in a waste disposal container. Flush area with water.

6.4. Reference to Other Sections

See Section 13: DISPOSAL CONSIDERATIONS.

Section 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Advice on Safe Handling

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

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions

Store locked up.

7.3. Specific End Use(s)

Specific Use(s)

For industrial use.

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Exposure Limits

Chemical name	European Union	United Kingdom	France	Spain	Germany
Chromium 7440-47-3	TWA: 2 mg/m ³	STEL: 1.5 mg/m ³ TWA: 0.5 mg/m ³	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 2 mg/m ³
Nickel 7440-02-0	-	STEL: 1.5 mg/m ³ TWA: 0.5 mg/m ³ Skin	TWA: 1 mg/m ³	TWA: 1 mg/m ³	TWA: 0.03 mg/m ³ TWA: 0.006 mg/m ³
Aluminum 7429-90-5	-	STEL: 30 mg/m ³ STEL: 12 mg/m ³ TWA: 10 mg/m ³ TWA: 4 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³	-
Yttrium 7440-65-5	-	STEL: 3 mg/m ³ TWA: 1 mg/m ³	TWA: 1 mg/m ³	TWA: 1 mg/m ³	-

Chemical name	European Union	United Kingdom	France	Spain	Germany
Manganese 7439-96-5	-	TWA: 0.6 mg/m ³ STEL: 0.15 mg/m ³ TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³	TWA: 1 mg/m ³	TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³	TWA: 0.2 mg/m ³ TWA: 0.02 mg/m ³
Molybdenum 7439-98-7	-	TWA: 10 mg/m ³	-	TWA: 10 mg/m ³ TWA: 3 mg/m ³	-
Copper 7440-50-8	-	STEL: 0.6 mg/m ³ STEL: 2 mg/m ³ TWA: 1 mg/m ³ TWA: 0.2 mg/m ³	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³ STEL: 2 mg/m ³	TWA: 0.1 mg/m ³	-
Silicon 7440-21-3	-	STEL: 30 ppm STEL: 12 mg/m ³ TWA: 10 mg/m ³ TWA: 4 mg/m ³	TWA: 10 mg/m ³	-	-
Cobalt 7440-48-4	-	STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³	-	TWA: 0.02 mg/m ³	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Chromium 7440-47-3	TWA: 0.5 mg/m ³	TWA: 2 mg/m ³	TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³
Nickel 7440-02-0	-	TWA: 1.5 mg/m ³	-	TWA: 0.01 mg/m ³ TWA: 0.05 mg/m ³	TWA: 0.05 mg/m ³
Aluminum 7429-90-5	-	TWA: 10 mg/m ³ TWA: 5 mg/m ³	-	TWA: 1.5 mg/m ³	TWA: 5 mg/m ³ TWA: 2 mg/m ³
Yttrium 7440-65-5	-	TWA: 1 mg/m ³	-	TWA: 1 mg/m ³	TWA: 1 mg/m ³
Manganese 7439-96-5	-	TWA: 0.2 mg/m ³	TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³	TWA: 0.2 mg/m ³ TWA: 0.02 mg/m ³	TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³
Molybdenum 7439-98-7	-	TWA: 10 mg/m ³ TWA: 3 mg/m ³	-	TWA: 0.5 mg/m ³	TWA: 10 mg/m ³
Copper 7440-50-8	-	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.02 mg/m ³	TWA: 1.0 mg/m ³ TWA: 0.1 mg/m ³
Silicon 7440-21-3	-	-	-	-	TWA: 10 mg/m ³
Cobalt 7440-48-4	-	TWA: 0.02 mg/m ³	TWA: 0.02 mg/m ³	TWA: 0.02 mg/m ³	TWA: 0.01 mg/m ³
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Chromium 7440-47-3	TWA: 2 mg/m ³	Skin TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³ STEL: 1.5 mg/m ³	TWA: 2 mg/m ³ STEL: 6 mg/m ³
Nickel 7440-02-0	-	TWA: 0.5 mg/m ³	TWA: 0.25 mg/m ³	TWA: 0.05 mg/m ³ STEL: 0.15 mg/m ³	TWA: 0.5 mg/m ³ STEL: 1.5 mg/m ³
Aluminum 7429-90-5	STEL 20 mg/m ³ TWA: 10 mg/m ³	TWA: 3 mg/m ³	TWA: 2.5 mg/m ³ TWA: 1.2 mg/m ³	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 1 mg/m ³ STEL: 3 mg/m ³
Yttrium 7440-65-5	STEL 10 mg/m ³ TWA: 1 mg/m ³	-	TWA: 1 mg/m ³	TWA: 1 mg/m ³ STEL: 2 mg/m ³	TWA: 1 mg/m ³ STEL: 3 mg/m ³
Manganese 7439-96-5	STEL 1.6 mg/m ³ TWA: 0.2 mg/m ³	TWA: 0.5 mg/m ³	TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³	TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ STEL: 0.6 mg/m ³ STEL: 0.15 mg/m ³ STEL: 0.6 ppm	TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ TWA: 0.02 mg/m ³ STEL: 0.15 mg/m ³ STEL: 0.6 mg/m ³ STEL: 3 mg/m ³
Molybdenum 7439-98-7	STEL 20 mg/m ³ TWA: 10 mg/m ³	TWA: 10 mg/m ³	STEL: 10 mg/m ³ TWA: 4 mg/m ³	TWA: 10 mg/m ³ STEL: 15 mg/m ³	TWA: 3 mg/m ³ TWA: 0.5 mg/m ³ STEL: 9 mg/m ³ STEL: 1.5 mg/m ³
Copper 7440-50-8	STEL 4 mg/m ³ STEL 0.4 mg/m ³ TWA: 1 mg/m ³ TWA: 0.1 mg/m ³	STEL: 0.2 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.2 mg/m ³	TWA: 0.1 mg/m ³ TWA: 1 mg/m ³ STEL: 0.3 mg/m ³ STEL: 2 mg/m ³	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³ STEL: 2 mg/m ³ STEL: 0.6 mg/m ³
Silicon 7440-21-3	-	TWA: 3 mg/m ³	-	TWA: 10 mg/m ³ STEL: 20 mg/m ³	TWA: 4 mg/m ³ TWA: 10 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³
Phosphorus 7723-14-0	STEL 0.2 mg/m ³ TWA: 0.1 mg/m ³	STEL: 0.02 mg/m ³ TWA: 0.02 mg/m ³	-	STEL: 0.3 mg/m ³	-
Cobalt 7440-48-4	Skin	Skin TWA: 0.05 mg/m ³	TWA: 0.02 mg/m ³	TWA: 0.02 mg/m ³ STEL: 0.06 mg/m ³	TWA: 0.02 mg/m ³ STEL: 0.3 mg/m ³

8.2. Exposure Controls

Engineering Controls Showers. Eyewash stations. Ventilation systems. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. Lethal concentrations may exist in areas with poor ventilation.

Personal Protective Equipment

Eye/Face Protection Wear safety glasses with side shields when a potential for dust is present.
Hand Protection Thin or thick Nitrile, Latex or leather gloves should be worn when handling fiber.
Skin and Body Protection Suitable protective clothing.
Respiratory Protection Dust mask should be worn when fiber may become airborne.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical state	Solid	Odour	None
Appearance	Metallic fiber	Odour Threshold	Not determined
Colour	Not determined		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not determined	
Melting point / freezing point	>1370 °C / >2500 °F	
Boiling point / boiling range	Not determined	
Flash point	>260 °C / >500 °F	
Evaporation Rate	Will not evaporate	
Flammability (Solid, Gas)	Not determined	
Flammability Limit in Air		
Upper flammability or explosive limits	Not determined	
Lower flammability or explosive limits	Not determined	
Vapour Pressure	Not determined	
Vapour Density	Not determined	
Relative Density	7.0-8.1 grams/ cubic centimeter	
Water Solubility	Not determined	
Solubility(ies)	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidising Properties	Not determined	

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not reactive under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of Hazardous Reactions

Hazardous Polymerisation

Will not occur.

Possibility of Hazardous Reactions

None under normal processing.

10.4. Conditions to Avoid

Heat, flames and sparks.

10.5. Incompatible Materials

Strong acids.

10.6. Hazardous Decomposition Products

Thermal decomposition or combustion may produce oxides of Nickel, Iron, Copper, Molybdenum and Manganese.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute toxicity

Product Information

Inhalation	Do not inhale.
Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Ingestion	Harmful if swallowed.

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

ATEmix (oral)	301 mg/kg
ATEmix (dermal)	9,524.30 mg/kg

Unknown Acute Toxicity

- 100 % of the mixture consists of ingredient(s) of unknown toxicity.
- 51 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
- 100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour).
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Iron	= 30 g/kg (Rat)		
Nickel	> 9000 mg/kg (Rat)		> 10.2 mg/L (Rat) 1 h
Manganese	= 9 g/kg (Rat)		
Silicon	= 3160 mg/kg (Rat)		
Carbon	> 10000 mg/kg (Rat)		
Cobalt	= 6171 mg/kg (Rat)		> 10 mg/L (Rat) 1 h
Sulfur	> 3000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 9.23 mg/L (Rat) 4 h
Phosphorus	= 3030 µg/kg (Rat)	= 100 mg/kg (Rat)	= 4.3 mg/L (Rat) 1 h

Skin corrosion/irritation	Causes mild skin irritation.
Serious eye damage/eye irritation	Not classified.
Sensitisation	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified.

Carcinogenicity May cause cancer.

Chemical name	European Union
Nickel	Carc. 2

Reproductive toxicity Not classified.

STOT - single exposure Not classified.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Not classified.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Nickel	0.18: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.174 - 0.311: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	1.3: 96 h Cyprinus carpio mg/L LC50 semi-static 10.4: 96 h Cyprinus carpio mg/L LC50 static 100: 96 h Brachydanio rerio mg/L LC50	100: 48 h Daphnia magna mg/L EC50 1: 48 h Daphnia magna mg/L EC50 Static
Manganese		3.6: 96 h Oncorhynchus mykiss mg/L LC50 semi-static	
Copper	0.0426 - 0.0535: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 0.031 - 0.054: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	1.25: 96 h Lepomis macrochirus mg/L LC50 static 0.8: 96 h Cyprinus carpio mg/L LC50 static 0.3: 96 h Cyprinus carpio mg/L LC50 semi-static 0.052: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.0068 - 0.0156: 96 h Pimephales promelas mg/L LC50 0.2: 96 h Pimephales promelas mg/L LC50 flow-through 0.112: 96 h Poecilia reticulata mg/L LC50 flow-through 0.3: 96 h Pimephales promelas mg/L LC50 static	0.03: 48 h Daphnia magna mg/L EC50 Static
Sulfur		14: 96 h Lepomis macrochirus mg/L LC50 static 866: 96 h Brachydanio rerio mg/L LC50 static 180: 96 h Oncorhynchus mykiss mg/L LC50 static	
Phosphorus		0.011 - 0.028: 96 h Pimephales promelas mg/L LC50 static 0.015 - 0.032: 96 h Oncorhynchus mykiss mg/L LC50 static 100: 96 h Brachydanio rerio mg/L LC50 static 0.0017 - 0.0035: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.001 - 0.004: 96 h Lepomis macrochirus mg/L LC50 static	0.025 - 0.037: 48 h Daphnia magna mg/L EC50 Static 0.03: 48 h Daphnia magna mg/L EC50
Cobalt		100: 96 h Brachydanio rerio mg/L LC50 static	

12.2. Persistence and Degradability

Not determined.

12.3. Bioaccumulative Potential

There is no data for this product.

12.4. Mobility in Soil

Mobility

Not determined.

12.5. Results of PBT and vPvB Assessment

Not determined.

12.6. Other Adverse Effects

Not determined.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste from residues/unused products

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

Contaminated Packaging

Improper disposal or reuse of this container may be dangerous and illegal.

Section 14: TRANSPORT INFORMATION

IMDG

14.2 Proper Shipping Name

Not regulated

14.5 Marine Pollutant

This material may meet the definition of a marine pollutant

RID

14.2 Proper Shipping Name

Not regulated

ADR

14.2 Proper Shipping Name

Not regulated

IATA

14.2 Proper Shipping Name

Not regulated

Section 15: REGULATORY INFORMATION

15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

National Regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Chromium 7440-47-3	RG 10	
Nickel 7440-02-0	RG 37ter	
Aluminum 7429-90-5	RG 32 RG 16, RG 16bis	
Phosphorus 7723-14-0	RG 5	
Cobalt 7440-48-4	RG 65, RG 70, RG 70bis, RG 70ter	

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

Chemical name	TSCA	DSL/NDSL	EINECS/ELINCS	PICCS	ENCS	IECSC	AICS	KECL
Iron 7439-89-6 (60-88)	X	X	X	X	X	X	X	X
Chromium 7440-47-3 (10-30)	X	X	X	X	X	X	X	X
Nickel 7440-02-0 (0-27)	X	X	X	X	X	X	X	X
Aluminum 7429-90-5 (<10)	X	X	X	X	X	X	X	X
Yttrium 7440-65-5 (<8)	X	X	X	-	X	X	-	X
Copper 7440-50-8 (<6)	X	X	X	X	X	X	X	X
Manganese 7439-96-5 (<6)	X	X	X	X	X	X	X	X
Molybdenum 7439-98-7 (<6)	X	X	X	X	X	X	X	X
Titanium 7440-32-6 (<6)	X	X	X	X	X	X	X	X
Carbon 7440-44-0 (<2)	X	X	X	X	X	X	X	X
Cobalt 7440-48-4 (<1)	X	X	X	X	X	X	X	X
Silicon 7440-21-3 (<1)	X	X	X	X	X	X	X	X
Sulfur 7704-34-9 (<2)	X	X	X	X	X	X	X	X
Phosphorus 7723-14-0 (<2)	X	X	X	X	X	X	X	X

Legend

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- AICS** - Australian Inventory of Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under section 3

H228 - Flammable solid
H261 - In contact with water releases flammable gases
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H351 - Suspected of causing cancer
H372 - Causes damage to organs through prolonged or repeated exposure
H412 - Harmful to aquatic life with long lasting effects
H413 - May cause long lasting harmful effects to aquatic life

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Classification Procedure

Calculation method

Issue Date: 06-Apr-2010

Revision Date: 11-Sep-2020

Revision Note: New format.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2015/830

Disclaimer

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