

STAINLESS STEEL - BILLET, BAR, ROD AND WIRE

SECTION 1: Identification of the article and of the company/undertaking

1.1. Product Identifier

Product name: Billet, bar, rod and wire made of stainless steel (marketed under Olarra trade names and designations in accordance with applicable international and national standards [e.g. EN 10088]).

REACH product type: This product is an article as defined in Article 3(3) of Regulation (EC) No 1907/2006 (REACH).

1.2. Relevant identified uses of the article and uses advised against

1.2.1 Identified uses:

Industrial and professional use of stainless steel articles for further processing (e.g. forming, machining, welding, fabrication) and incorporation into equipment and components used in sectors such as automotive, chemical, aviation, oil and gas, nuclear industries, etc.

1.2.2. Uses advised against:

No uses advised against identified.

1.3. Details of the supplier of the article data sheet

Aceros Inoxidables Olarra S.A.

Larrabarri 1, 48180 Loiu (Bizkaia) Spain.

Tel: +34 94 471 13 00

Email: info@olarra.com

Site: www.olarra.com

E-mail address of competent person responsible for the SDS: info@olarra.com

1.4. Emergency telephone number

Telephone number of the supplier:

+34 94 471 13 00 (available during office hours: Monday to Friday 08:00 - 17:00 CET).

SECTION 2. Hazards identification

2.1. Classification according to Regulation (EC) No 1272/2008 (CLP) (CLP):

This product is an article within the meaning of Article 3(3) of Regulation (EC) No 1907/2006 (REACH). Articles are not subject to classification under Regulation (EC) No 1272/2008 (non-explosive article).

2.2. Label elements

Not applicable. No labelling required.

2.3. Other hazards

The article does not contain substances identified as PBT or vPvB, or substances with endocrine-disrupting properties for human health or the environment, in a concentration equal to or greater than 0.1% by weight.

In the massive solid form as supplied, stainless steel does not present hazards to human health or the environment under normal conditions of industrial and professional use.

However, hazards may arise during mechanical or thermal processing operations such as welding, flame cutting, plasma cutting, laser cutting, grinding or abrasive blasting. These processes may generate dust and metal fumes containing iron, manganese, nickel and chromium oxides. Excessive inhalation of airborne dust or fumes over prolonged periods may adversely affect health.

Individuals already sensitised to nickel or cobalt may experience allergic skin reactions following prolonged and intimate skin contact with certain stainless steel grades. If prolonged skin contact is involved in the processing of this product, please contact the supplier for advice.

SECTION 3. Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Composition of the article (main metallic constituents)

The article consists of alloyed metallic elements firmly bound within a solid stainless steel matrix. The constituent

metals are not present as separate substances under normal conditions of use. The concentrations indicated below represent typical compositional ranges depending on grade in accordance with EN 10088-1.

Name [1]	Identifiers	Conc. (w/w)	CLP Classification [2]
Nickel	CAS: 7440-02-0 EC: 231-111-4 CLP index: 028-002-00-7	< 38 %	Carc. 2; H351 STOT RE 1; H372 Skin Sens. 1; H317
Chromium	CAS: 7440-47-3 EC: 231-157-5 CLP index: n/a	10.5 - 30 %	Not classified
Manganese	CAS: 7439-96-5 EC: 231-105-1 CLP index: n/a	< 11 %	Not classified
Molybdenum	CAS: 7439-98-7 EC: 231-107-2 CLP index: n/a	< 8 %	Not classified
Cobalt	CAS: 7440-48-4 EC: 231-158-0 CLP index: 027-001-00-9	< 2 %	Acute Tox. 4; H302 Carc. 1B; H350 Muta. 2; H341 Repr. 1B; H360Fd Resp. Sens. 1; H334 Skin Sens. 1; H317 Aquatic Chronic 4; H413
Lead	CAS: 7439-92-1 EC: 231-100-4 CLP index: 082-013-00-1	< 0.0015%	Repr. 1A; H360FD Lact.; H362 STOT RE 1; H372 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Iron	CAS: 7439-89-6 EC: 231-096-4 CLP index: n/a	Remainder	Not classified

[1] Other alloying elements such as nitrogen, copper and silicon may be present depending on grade. For detailed compositional limits, refer to EN 10088-1 (Stainless steels - Part 1: List of stainless steels) and to the corresponding quality certificate supplied with the material.

[2] The classification shown refers to the substances in their bulk metallic form in accordance with CLP and does not imply classification of the article, which is not subject to classification under Regulation (EC) No 1272/2008. For the full text of the classification and hazard statement codes mentioned in this section, see section 16.

REACH compliance certificate:

ACEROS INOXIDABLES OLARRA S.A. certifies that this article complies with the provisions of Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), in particular:

- The constituent substances of the article have been registered where required under REACH, or are exempt from registration in accordance with the provisions of the Regulation.
- No substances are intentionally released from the article under normal or reasonably foreseeable conditions of use.
- Where applicable, the service life and relevant uses of the substances contained in the article have been considered within the framework of the chemical safety assessments performed as part of REACH registrations.

SVHC substances present in the article:

According to the information available at the date of issue of this document and in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH), this article does not contain any substance included in the current Candidate List of Substances of Very High Concern (SVHC) in a concentration exceeding 0.1% weight by weight (w/w).

SECTION 4. First aid measures

4.1. Description of first aid measures

No specific first aid measures are required for the article in the massive solid form as supplied. Medical attention should be

sought in the event of excessive inhalation of dust or fumes generated during processing, or in case of physical injury.

Following skin contact:

Rinse skin with plenty of water and soap. In the event of persistent irritation or redness, seek medical advice.

Following inhalation of fumes or dust:

In the event of discomfort, remove the person from the place of exposure and provide fresh air while keeping them comfortable and warm. Seek immediate medical attention if any type of discomfort or respiratory difficulty appears.

Following eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical advice if irritation persists.

Following ingestion:

Ingestion is not considered a likely route of exposure for the article in solid form. If metallic fragments are swallowed seek immediate medical attention. If choking occurs, accompanied by coughing, noise or breathing difficulty, act immediately by performing airway clearance manoeuvres. In the absence of respiratory obstruction, do not induce vomiting. Seek immediate medical attention and present this data sheet.

4.2. Most important symptoms and effects, both acute and delayed

4.2.1 Acute symptoms:

In the massive solid form as supplied, no acute health effects are expected under normal conditions of use. During mechanical or thermal processing operations (e.g. welding, cutting, grinding), inhalation of dust or metal fumes may cause irritation of the respiratory tract and temporary discomfort.

4.2.2. Delayed symptoms:

Exposure to metal fumes generated during thermal processing may, in certain cases, result in a flu-like condition known as metal fume fever. Symptoms typically occur several hours after exposure and may include fever, chills, headache, muscle aches and general malaise. These effects are usually temporary and resolve within 24–48 hours after cessation of exposure.

Prolonged or repeated inhalation of excessive concentrations of dust or fumes may adversely affect respiratory health.

The article contains nickel and cobalt; prolonged and intimate skin contact may cause allergic skin reactions in sensitised individuals.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. In case of inhalation of metal fumes resulting in flu-like symptoms, treatment is supportive and based on clinical presentation. No specific antidote is known.

If metallic particles enter the eye, removal should be performed by qualified medical personnel. Austenitic stainless steel particles are generally non-magnetic or only slightly magnetic and may therefore not respond to magnetic extraction techniques. No further relevant information has been identified.

SECTION 5. Firefighting measures

5.1. Extinguishing media

5.1.1. Suitable extinguishing media:

The article in solid form is not combustible. Extinguishing media should be selected according to the surrounding fire.

5.1.2. Unsuitable extinguishing media:

Do not use water directly on molten metal. Contact of water with molten metal may result in rapid steam generation and possible violent spattering.

5.2. Special hazards arising from the article

Stainless steel in solid form does not present fire or explosion hazards. However, exposure to very high temperatures may result in the formation of metal fumes.

5.3. Advice for firefighters

This material does not have hazardous physico-chemical properties, so extinguishing methods should be appropriate for other materials stored at the same facility. In the event of fire, quickly isolate the area by evacuating all persons from the vicinity of the incident. Refrain from any action which may endanger other persons and do not allow untrained personnel to intervene.

Fire-fighters must wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operating in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 provides a basic level of protection for chemical incidents. Clothing not conforming to EN 469 may not be suitable in any chemical incident

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel: In the event of accidental dropping or displacement of the article, do not attempt to intervene unless authorised and trained to do so. Move away from the affected area and inform responsible personnel. Avoid contact with sharp edges, unstable stacked material or heavy sections that may present a risk of physical injury.

6.1.2. For emergency responders: Only trained personnel should handle the recovery of displaced articles. Wear appropriate personal protective equipment as described in Section 8, including protective gloves and safety footwear suitable for handling heavy metallic objects. Secure the area and prevent access to unauthorised persons until the situation has been safely resolved. If fine particulate or metal dust is present, avoid generating or dispersing dust during cleanup operations.

6.2. Environmental precautions

No specific environmental precautions are required for the article in solid form. Avoid uncontrolled release of metal dust or particles to drains or watercourses.

6.3. Methods and material for containment and cleaning up

6.3.1. Large / small spills: Collect displaced articles by mechanical means and store securely to prevent further movement. If dust or metal particles are present, clean using suitable industrial vacuum equipment or wet methods to minimise dust dispersion.

6.4. Reference to other sections

Refer to Section 8 for personal protective measures and to Section 13 for disposal considerations.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Maintain a good standard of industrial hygiene. Workers should wash hands and face at the end of each shift and before eating, drinking or smoking. Avoid inhalation of dust or fumes generated during mechanical or thermal processing operations.

Handling operations should take into account the physical characteristics of the product:

- Products may have sharp edges capable of causing cuts or abrasions.
- Mechanical operations such as cutting or shearing may generate flying particles.
- Straps or bands, used to secure some products, should not be used for lifting. Coils and bundled products (e.g. sections, rods, bars etc.) may spring apart when the banding is removed and the banding itself could cause eye or other injury when tension is released.
- Certain products may exhibit residual stresses or brittleness resulting from processing, which may lead to fracture or sudden deformation during handling.
- Appropriate personal protective equipment (e.g. protective gloves, eye protection and safety footwear) and safe systems of work should be implemented to take account of any hazards arising from the risk of fracturing or the release of tension when breaking-open the banding.

Avoid contact with incompatible materials (see section 10).

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Requirements for safe storage: The product is stable under normal storage conditions. However, it should be kept in mind that the products may have sharp edges and a sufficiently robust place should be used for storage. Suitable racks should be used, particularly for narrow coils or long sections.

7.2.2. Keep the product away from: Avoid contact with strong acids (see section 10).

7.3. Specific end use(s)

See section 1.2.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure:

a) Occupational exposure limit values:

Exposure limits may become relevant during mechanical or thermal processing operations (e.g. welding, cutting, grinding), where dust or metal fumes may be generated. During thermal processing, metals are primarily present as oxides in fume form; therefore, exposure limits for metal compounds may apply. The following occupational exposure limit values are provided for guidance and are based on EU indicative or binding values and Spanish national limits (INSST 2025), as applicable.

CAS	Name of agent	OEL 8h (mg/m ³)	Notation
7440-47-3	Chromium metal / Insoluble inorganic chromium (II) and chromium (III) compounds, as Cr [*]	2	VLI

-	Chromium (VI) compounds, as Cr (2025) [**] [***]	0.005	C1, VLB®, Sen, r, v
7440-50-8	Copper, respirable fraction / Copper compounds, as Cu (respirable fraction) [**]	0.01	d
1309-37-1	Iron (III) oxide (dust and fumes), as Fe [**]	5	-
7439-96-5	Elemental manganese / Inorganic manganese compounds, as Mn. Inhalable fraction [*]	0.2	VLI
7439-96-5	Elemental manganese / Inorganic manganese compounds, as Mn. Respirable fraction [**]	0.05	-
7439-98-7	Elemental molybdenum / Insoluble compounds, as Mo. Inhalable fraction [**]	10	c
7439-98-7	Elemental molybdenum / Insoluble compounds, as Mo. Respirable fraction [**]	3	c, d
-	Molybdenum. Soluble compounds, as Mo. Respirable fraction [**]	0.5	c, d
7440-02-0	Nickel metal [**]	1	Sen, r
-	Nickel compounds (as nickel) [**] [***]	0.05	C1, Sen, r, c, v
-	Nickel compounds (as nickel), respirable fraction [**] [***]	0.01	C1, Sen, r, c, v
7440-48-4	Elemental cobalt / Inorganic cobalt compounds, except those expressly specified, as Co [**]	0.02	C1B, TR1B, VLB®, Sen
7439-92-1	Elemental lead / Inorganic lead compounds, as Pb [1] (current national value) [2] (binding value applicable from 9 April 2026)	0.15 [1] [**] 0.03 [2] [***]	VLB®, TR1A, r, b, v

[*] Chemical agent for which the EU has established an indicative occupational exposure limit value. All these chemical agents are listed in at least one of the indicative occupational exposure limit directives published to date.

[**] Occupational exposure limits for chemical agents in Spain, INSST 2025. See the content of the notes at <https://bdlep.insst.es/LEP/>

[***] Binding occupational exposure limit value established in Annex III to Directive 2004/37/EC (Carcinogens, Mutagens or Reprotoxic Substances Directive) and/or in Annex I to Directive 98/24/EC (Chemical Agents Directive).

b) Biological limit values:

Name of agent	Biological indicator (BI)	Limit values (BLV)	Sampling
Lead and ionic derivatives [*]	Lead in blood	30 µg Pb/100 mL	Not critical
Chromium (VI) compounds, as Cr (2024) [**]	Total chromium in urine	7.5 µg/L	End of the working week
Cobalt and inorganic compounds except oxides [**]	Cobalt in urine	15 µg/L	End of the working week
	Cobalt in blood	1 µg/L	End of the working week

[*] Chemical Agents Directive - Directive 98/24/EC Annex II - Binding biological limit values.

[**] Occupational exposure limits for chemical agents in Spain, INSST 2025.

8.1.2. Recommended monitoring procedures:

Occupational exposure monitoring should be carried out where required by risk assessment and in accordance with applicable legislation. Exposure to airborne dust and metal fumes should be assessed using recognised workplace air monitoring methods (e.g. EN 14042 or equivalent standards).

Lead: Where biological monitoring is required, measurement of lead in blood should be performed using atomic absorption spectrometry (AAS) or an equivalent validated analytical method.

Cobalt and chromium (VI): Where biological monitoring is undertaken following occupational exposure, sampling should be performed after four or five consecutive days of work involving exposure, as soon as possible after the end of the last shift, since the biological indicators are eliminated with half-lives exceeding five hours. These indicators accumulate in the body over the working week; therefore, the timing of sampling is critical in relation to previous exposures.

8.2. Exposure controls

8.2.1. Appropriate engineering controls: During mechanical or thermal processing operations (e.g. cutting, grinding, welding), dust and metal fumes may be generated. Where such operations are performed, effective engineering controls should be implemented, including adequate general ventilation, local exhaust ventilation or fume extraction systems at source and process enclosure where appropriate. Engineering controls should ensure that applicable occupational exposure limit values are not exceeded.

8.2.2. Individual protection measures:

The need for personal protective equipment must be determined through workplace risk assessment in accordance with applicable European and national occupational health and safety legislation. Welding and other thermal processes should only be performed by trained personnel using appropriate protective equipment in accordance with the laws of each member state relating to safety.

General advice: Ask for advice to your PPE provider and always require that equipment has CE marking. All workers should be trained in the correct use and maintenance of all PPE used. Care must be taken to ensure that all types of PPE worn are compatible with each other and suitable for the task.

Respiratory protection: If engineering controls and work practices are not effective in reducing substances concentration below permissible limits, suitable respiratory protective equipment should be used in accordance with applicable European standards and manufacturer instructions.

Tight-fitting dust masks must be face-fit-tested before use. Where necessary to wear a respirator for long periods at a time, a powered respirator will be more comfortable and reliable than a dust mask. RPE should be fit-tested prior to use. An incorrectly fitted mask will provide ineffective protection against harmful agents. Special care should be taken with those workers who have a history of cardiac or respiratory problems, as the wrong type of mask could have a detrimental effect on their health.

Hand protection: Suitable hand protection should be worn where there is a risk of laceration, flying particles, burning or welding radiation or contact with oils during processing. Material and thickness of the glove will depend on the specific application; consult with your PPE supplier. Gloves should be replaced immediately if any signs of degradation are observed.

Eye protection: Safety goggles or face shields compliant with applicable European standards (e.g. EN 166) should be worn where there is a risk of flying particles, sparks or metal fumes. Contact lenses should not be worn during operations generating particles or fumes.

Body protection: Under normal conditions of use, wear industrial-type work clothing that covers the entire body, with long sleeves. Protective footwear should be worn when handling heavy sections.

Hygiene measures: Ensure workers follow simple hygiene rules (e.g. do not bite nails and keep them cut short, avoid touching or scratching face with dirty hands or gloves; ensure workers do not wipe away sweat with hands or arms; ensure workers use disposable tissues rather than a handkerchief). Prohibit drinking, eating and smoking in production areas, or access to eating and non-production areas in working clothes. Ensure workers wash hands, arms, faces and mouths and change into clean clothing before entering eating areas.

Adherence to basic proper hygiene (frequent washing of hands) or wearing of gloves would effectively reduce the dermal exposure to the chemicals contained in the articles; however, they do not replace appropriate engineering controls and respiratory protection where airborne contaminants are present.

Ensure general shop cleanliness is maintained by frequent washing.

8.2.3. Environmental exposure controls: No specific environmental exposure controls are required for the article in solid form under normal conditions of use. Emissions from ventilation systems during processing operations should comply with applicable environmental legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Solid; metallic grey, ranging from dull to bright polished. Occasionally supplied with oxidised, blue/black surfaces.
Odour:	Odourless
Water solubility:	Insoluble
Melting point:	1370 °C – 1520 °C
Density:	7.7 – 8.1 g/cm ³

Thermal expansion (mean value 20-100°C):	10 – 18 x 10 ⁻⁶ °C ⁻¹
Thermal conductivity (RT):	12 – 30 W/m°C
Thermal conductivity:	8 – 30 W/(m K) at 20°C, depending on specific grade
Magnetic properties:	Austenitic stainless steels are non-magnetic in most supply conditions, but may be paramagnetic in some supply conditions (Permeability 1.005 – 1.1). Duplex, ferritic and martensitic stainless steels are ferro-magnetic.

9.2. Other information

9.2.1. Information with regard to physical hazard classes: There is no evidence of physical hazards in terms of (self) flammability, explosiveness, or oxidising solids. The composition of the article does not contain chemical groups (such as metal peroxides, peroxyacid anions, azides, or halogen oxides) typically associated with explosive properties.

SECTION 10: Stability and reactivity

10.1. Reactivity

The article is not reactive under normal ambient conditions of storage and use.

10.2. Chemical stability

Stainless steel is stable under normal temperature and pressure conditions. No hazardous decomposition is expected during normal handling and storage.

10.3. Possibility of hazardous reactions

Contact with strong acids may result in corrosion of the metal and possible release of hydrogen gas and other reaction products (e.g. nitrogen oxides in the case of nitric acid). Thermal processes such as welding, flame cutting, plasma cutting or melting may generate metal fumes containing oxides of iron, chromium, nickel and manganese. Certain welding processes may generate hexavalent chromium (Cr(VI)).

10.4. Conditions to avoid

Avoid contact with strong acids.

10.5. Incompatible materials

Stainless steel may react in contact with strong acids and highly corrosive substances, releasing gaseous acid decomposition products (e.g. hydrogen, oxides of nitrogen) which could present a fire hazard under certain confined conditions.

10.6. Hazardous decomposition products

At elevated temperatures, metal fumes and oxides may be generated (see Section 8 and 10.3).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.1.1. Toxicological data:

The product is an article and is not subject to classification under Regulation (EC) No 1272/2008 (CLP). In the massive solid form as supplied, no adverse toxicological effects are expected under normal conditions of industrial use.

11.1.2. Information on likely routes of exposure:

Potential routes of exposure may arise during mechanical or thermal processing operations, particularly inhalation of dust or metal fumes generated during welding, cutting, grinding or melting.

11.1.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Inhalation: Inhalation of metal fumes generated during thermal processing may cause respiratory irritation. In some cases, exposure to high concentrations of metal fumes may result in a self-limiting flu-like condition known as metal fume fever. Welding and flame cutting may generate hexavalent chromium (Cr(VI)) and nickel compounds in fume form. Occupational exposure to such fumes has been associated with an increased risk of occupational asthma and long-term carcinogenic effects.

Skin contact: Nickel is classified as a skin sensitiser. Most stainless steels do not release nickel in quantities sufficient to cause sensitisation. However, close and prolonged contact with re-sulphurised free-machining grades containing approximately 0.15–0.35% sulphur (e.g. EN 1.4105, 1.4523, 1.4305, 1.4570) may provoke a reaction in already sensitised individuals.

11.2. Information on other hazards

No further information available.

SECTION 12: Ecological information

12.1. Toxicity

This material falls outside the scope of Regulation (EC) No 1272/2008 (non-explosive article, not subject to classification under CLP). There are no hazards of concern for the environment from stainless steels in the forms supplied.

12.2. Persistence and degradability

Not relevant (the article consists of metallic elements in alloyed form).

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

Not relevant.

12.6. Endocrine disrupting properties

The article does not contain substances identified with endocrine-disrupting properties for the environment in a concentration equal to or greater than 0.1% by weight.

12.7. Other adverse effects

No known harmful effects. No further information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

13.1.1. Provisions on the wastes:

Remaining product: Same safety measures in place for handling the product must be taken into consideration when handling waste. Waste should not be disposed of by release to sewers.

13.1.2. Methods of waste treatment:

Surplus and scrap (waste) stainless steel is a valuable commodity. Recycling routes are well established, and recycling is therefore the preferred disposal route. Disposal to landfill is not harmful to the environment, but is a waste of resources and therefore less desirable than recycling. Contact your supplier or an authorised waste management entity if you need advice on the disposal of the product.

Applicable regulations (EU): Directive 2008/98/CE on waste (OJ L 312, 22/11/08). Regulation (EU) 2024/1157 on shipments of waste (OJ L 2024/1157, 30/04/24).

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not subject to dangerous goods regulations.			
14.2 UN proper shipping name				
14.3 Transport hazard class(es)				
14.4 Packing group				
14.5 Environmental hazards				
14.6 Special precautions for user				
14.7 Maritime transport in bulk according to IMO instruments				

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the article

- List of SVHC substances: The article does not contain SVHC substances in a concentration equal to or greater than 0.1% by weight.

Storage:

- Real Decreto 656/2017 (RAPQ - Spain): Articles, as defined in Article 3(3) of the REACH Regulation, do not fall within the scope of application of the RAPQ (according to the technical guidance on the application of the Regulation on the storage of chemical

products and its supplementary technical instructions, Ministry of Industry, December 2021).

15.2. Chemical safety assessment

Where applicable under REACH, chemical safety assessments have been carried out for the relevant substances contained in the article. Operational conditions and risk management measures identified in such assessments have been considered in the preparation of this document where relevant.

SECTION 16: Other information

Advice on any training appropriate for workers:

Workers should receive appropriate training in the safe handling, processing and storage of stainless steel products, including awareness of risks associated with mechanical operations and thermal processing.

Abbreviations and acronyms:

CLP	Regulation EC 1272/2008.
REACH	Regulation EC 1907/2006.
OEL	Occupational Exposure Limit.
INSST	National Institute of Safety and Health at Work.
PPE	Personal protective equipment.
PBT	Persistent, Bioaccumulative and Toxic.
vPvB	Very persistent and very bioaccumulative.

More information available in the glossary of the European Chemicals Agency (ECHA) at: <https://echa-term.echa.europa.eu/>

Hazard statements in full and classification codes indicated in section 3:

- Acute Tox. 4: Acute toxicity, Category 4.
- Aquatic Acute 1: Hazardous to the aquatic environment – Acute, Category 1.
- Aquatic Chronic 1: Hazardous to the aquatic environment – Chronic, Category 1.
- Aquatic Chronic 4: Hazardous to the aquatic environment – Chronic, Category 4.
- Carc. 1B: Carcinogenicity, Category 1B.
- Carc. 2: Carcinogenicity, Category 2.
- Lact.: Reproductive toxicity, Additional category, Effects on or via lactation.
- Muta. 2: Germ cell mutagenicity, Category 2.
- Repr. 1B: Reproductive toxicity, Category 1B.
- Resp. Sens. 1: Respiratory sensitisation, Category 1.
- Skin Sens. 1: Skin sensitisation, Category 1.
- STOT RE 1: Specific Target Organ Toxicity – Repeated Exposure, Category 1.
- H302: Harmful if swallowed.
- H317: May cause an allergic skin reaction.
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H341: Suspected of causing genetic defects.
- H350: May cause cancer.
- H351: Suspected of causing cancer.
- H360FD: May damage fertility. May damage the unborn child.
- H360Fd: May damage fertility. Suspected of damaging the unborn child.
- H362: May cause harm to breast-fed children.
- H372: Causes damage to organs through prolonged or repeated exposure.
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.
- H413: May cause long lasting harmful effects to aquatic life.

Version information:

Version number: 2.

Superseded version: 1 (January 2018).

Revised sections: Complete revision of the document to align it with the format requirements of Regulation (EU) 2020/878.

Key literature references and sources for data:

- Occupational exposure limits for chemical agents in Spain. National Institute of Safety and Health at Work, 2025.
- EUROFER Safety Information Sheet (SIS) for Stainless Steel (European Confederation of Iron and Steel Industries, 2016).
- Company data.

Please note that, given the status of this material as an “article” and in accordance with Article 31(1) of the REACH Regulation, this product is not required to be supplied with a Safety Data Sheet prepared in accordance with Annex II of REACH. This document is therefore provided on a voluntary basis and, in line with the guidance issued by the European Chemicals Agency (ECHA), may not fully comply with the formal requirements applicable to Safety Data Sheets.

Users are advised to study this document carefully and, where appropriate, to seek specialist advice in order to properly understand the information it contains. The information provided herein reflects the current state of our knowledge and is given in good faith. However, it is supplied for informational purposes only and does not constitute any express or implied warranty or guarantee regarding the properties of the product.