

MSDS : AISI 316L

AISI 316L

1 - Identification of the article and of the company:

1.1 Product identifier

Trade Name: **AISI 316L INOX**

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

No further relevant information available.
Application of the article: semi-finished product

1.3 Details of the supplier of safety data sheet

Manufacturer/Supplier:
ROBERT LAMINAGE SA
La Jaluse
CH-2400 LE LOCLE
Phone: +41 32 933 91 91
Fax: +41 32 933 91 89
E-mail/Internet: info@robertlaminage.ch www.robertlaminage.ch

1.4 Information in case of emergency:

Tox Info Suisse
From Switzerland: call 145
From abroad: call +41 44 251 51 51

Remarks for information sheet: Semi-finished products from iron and iron-alloy are articles according to Regulation (EC) No. 1907/2006 (REACH Regulation).
For articles there is no legal obligation to issue a safety data sheet. However, to be able to provide information typically included in a safety data sheet also for articles, the present information sheet for articles has been worked out.
We expressly point out that the information sheet for articles is a voluntarily issued information sheet which is not subject to the formal requirements of the REACH Regulation.

2 - Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP-Regulation):
For products there is no obligation to classify acc. to CLP -Regulation.
The product is not classified according to the CLP regulation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008: Void
Hazard pictograms: Void
Signal word: Void
Hazard-determining components of labelling: Void
Hazard statements: Void

2.3 Other hazards

Results of PBT and vPvB assessment
PBT: Not applicable to metals
vPvB: Not applicable to metals.














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3 - Composition/information on ingredients

3.2. Chemical characterisation: Mixtures

Description: Metal in compact form.
 Material code (DIN CEN/TS 13388:2015-08): INOX
 Material number (DIN CEN/TS 13388:2015-08): 1.4404/1.4435
 UNS-number: -
 Information:

The classifications mentioned below reflect the respective pure substance and are for information only.
 Iron alloys are special preparations according to Regulation (EC) 1907/2006 (REACH Regulation).
 The classification of a pure substance is not applicable to its use as element of an iron alloy.

Alloy components:				
Chemical Element	% Weight (max)	N° CAS	N° EINECS	Others information
Fe	balance%	7439-89-6	231-096-4	 Flam. Sol. 2 H228
C	0.00-0.03%	7440-44-0	231-153-3	
Si	0.0-1.0%	7440-21-3	231-130-8	 Flam. Sol. 2 H228
Mn	0.0-2.0%	7439-96-5	231-105-1	 Water react. 1 H260
Cr	16.5-19.0%	7440-47-3	231-157-5	 Flam. Sol. 2 H228,  Carac. 2 H351
Ni	10.0-15.0%	7440-02-0	231-111-4	 Carac. 2 H351,  Skin. 1 H317,  STOT RE 1 H372,  Aquatic Chronic 3 H412
S	0.00-0.015%	7704-34-9	231-722-6	 Skin corr. 2 H315
P	0.00-0.045%	7723-14-0	231-768-7	 Flam. Sol. 2 H228,  Aquatic Chronic 2 H411
Mo	2.0-3.0%	7439-98-7	231-107-2	
N	0.00-0.11%	7727-37-9	231-783-9	 Flam. Sol. 2 H228

SVHC	
7440-47-3	Chromium
7440-02-0	Nickel

4 - First aid measures

4.1. Description of first aid measures

General information:
 No special measures required.
 First Aid information refer to any dust which is generated.
 The mixture in solid form does not pose any significant health hazard. However, melting or activities which produce metal dust, smoke or fumes can cause that metal dust enter the body in harmful amounts.
 After inhalation: Supply fresh air and to be sure call for a doctor.
 In case of unconsciousness place patient stably in side position for transportation.
 After skin contact: Immediately wash with water and soap and rinse thoroughly.
 After eye contact:
 Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
 After swallowing: Rinse out mouth and then drink plenty of water.

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

No further relevant information available.

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

No further relevant information available.

5 - Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

Non-flammable. Use firefighting measures that suit the environment.

5.2 Special hazards arising from the substance or mixture:

No further relevant information available.

5.3 Advice for firefighters:

Protective equipment: No special measures required.

6 - Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Not required.

6.2 Environmental precautions:

Not required.

6.3 Methods and material for containment and cleaning up:

Collect the material and if necessary dispose it as waste according to section 13.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 - Handling and storage

7.1 Precautions for safe handling:

No special measures required. - Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities:

Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Further information about storage conditions: Store in dry conditions.

7.3 Specific end use(s):

No further relevant information available.

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8 - Exposure controls/personal protection

Additional information to national classifications:
 ORRChim, 814.81 (National classification Switzerland)
 7440-47-3 chromium metal (bioavailable): Toxic (S)
 7440-02-0 nickel metal (bioavailable): monitoring biologic (C2/S/B)
 Additional information about design of technical facilities: No further data; see item 7.

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:	
7440-02-0 nickel	
SUVA (Switzerland)	VME 0.05mg/m ³ VLEP(8h) 0.3mg/m ³ VLCT(15min) 2mg/m ³
Ingredients with limit values that require monitoring at the workplace:	
7440-47-3 chromium	
SUVA (Switzerland)	VME 0.05mg/m ³ VLEP(8h) 0.5mg/m ³
Ingredients with limit values that require monitoring at the workplace:	
7439-96-5 manganese	
SUVA (Switzerland)	VME 0.5mg/m ³
Ingredients with limit values that require monitoring at the workplace:	
7440-21-3 silicium	
SUVA (Switzerland)	VME 3mg/m ³
Ingredients with limit values that require monitoring at the workplace:	
7704-34-9 soufre	
SUVA (Switzerland)	VME -mg/m ³
Ingredients with limit values that require monitoring at the workplace:	
7723-14-0 phosphor	
SUVA (Switzerland)	VME 0.02mg/m ³ VLEP 0.02mg/m ³
Ingredients with limit values that require monitoring at the workplace:	
7439-98-7 molybden	
SUVA (Switzerland)	VME 10mg/m ³
Additional Occupational Exposure Limit Values for possible hazards during processing:	
General dust limit (A-alveolar fraction, E-respirable fraction)	
SUVA (Switzerland)	(A) 3mg/m ³ (E) 10mg/m ³

8.2. Exposure controls

Personal protective equipment:
 General protective and hygienic measures:
 Keep away from foodstuffs, beverages and feed.
 Wash hands before breaks and at the end of work.
 Store protective clothing separately.
 Do not inhale dust / smoke / mist.
 Respiratory protection:
 Use a suitable industrial gas mask when work-place-limits are exceeded.

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Protection of hands:

Protective gloves are recommended, depending upon how the semis are further processed (material of gloves: neoprene or leather).

Eye protection:

Protective goggles are recommended, depending upon how the semis are further processed (tightly goggles – DIN EN 166).

Body protection:

Wear suitable protective clothing, depending upon how the semis are further processed.

9 - Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance:	
Form:	Solid
Colour:	Grey
Odour:	Odourless
Odour threshold:	Not determined
Change in condition	
Melting point/freezing point:	1375-1400 °C (Lit.)
Initial boiling point and boiling range:	Undetermined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
Explosive properties:	Product does not present an explosion hazard.
Density at 20 °C:	7,98 g/cm ³ (Lit.)
Solubility in / Miscibility with water: -	Not soluble.
9.2 Other information	No further relevant information available.

10 - Stability and reactivity

10.1 Reactivity: Not applicable.

10.2 Chemical stability: Not applicable.

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions:

No dangerous reactions known.

10.4 Conditions to avoid: No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: No dangerous decomposition products known.

11 - Toxicological information

General information:

The solid product does not pose a health hazard if handled properly.

Effect on the skin: No effects

Effect on eyes: No effects

Sensitization: Due to the nickel content avoid direct and prolonged skin contact.

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12 - Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability: No further relevant information available.

12.3 Bioaccumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.

Additional ecological information

General notes:

Semi-finished articles from iron and iron-alloy are not soluble in water.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable to metals. -

vPvB: Not applicable to metals.

12.6 Other adverse effects: No further relevant information available.

13 - Disposal considerations

13.1 Waste treatment methods

Recommendation: Contact manufacturer for recycling information.

Waste disposal key:

12 01 01: Ferrous metal filings and turnings

16 01 17: Ferrous metal for non-contaminated waste

14 - Transport information

14.1 UN-Number	
ADR, ADN, IMDG, IATA	Void
14.2 UN proper shipping name	
ADR, ADN, IMDG, IATA	Void
14.3 Transport hazard class(es)	
ADR, ADN, IMDG, IATA · Class	Void
14.4 Packing group	
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	Not applicable
14.6 Special precautions for user:	Not applicable
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable

15 - Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical safety assessment: void.

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

Waterhazard class: Generally not hazardous for water.

Other regulations, limitations and prohibitive regulations

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Substances of very high concern (SVHC) according to REACH, Article 57	
7440-47-3	Chromium
7440-02-0	Nickel

16 - Other information

This information is based on our present. However, this shall not constitute a guarantee for any specific article features and shall not establish a legally valid contractual relationship.