SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product type	**Article** This product is an article as defined by REACH regulation art. 3. Therefore, a safety data sheet is not required. This document is a safety information sheet, and its objective is to provide to the user the relevant information about health and safety for the above mentioned products, as required by article 33 of REACH regulation. For ease of reading, this document is stuctured as a safety data sheet.
Product names	**RW 308L - RW 308L AWS - RW 308LSi – RW309H - RW 309L - RW3 09Si – RW 309LSi - RW 309LMo - RW 310 -RW3 16L - RW 316L AWS - RW 316LSi - RW 316H - RW 317L AWS - RW 318Si - RW 385 – RW 2594**

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

Intended use	Metal alloy for arc welding, for professional use only
uses advised against:	Any use other than those listed above

1.3. Details of the supplier

Name	RODACCIAI SpA
Full address	Via Giuseppe Roda 1 23842 Bosisio Parini (LC)
	Phone +39 031878111
Competent person responsible for the safety information sheet	ufficio tecnico – Ing. Matteo Passavanti matteo.passavanti@rodacciai.com

1.4. Emergency telephone number

For urgent inquiries refer to	Phone +39 031878111 (office hours)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Specific target organ toxicity - repeated exposure, category 1	H372	Causes damage to organs through prolonged or repeated exposure.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H317	May cause an allergic skin reaction.

Precautionary statements

P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P261	Avoid breathing dust / fume.
P201	Obtain special instructions before use.
P308+P313	IF exposed or concerned: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Contains: NICKEL

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
NICKEL		
CAS 7440-02-0 EC 231-111-4 INDEX 028-002-00-7	10 ≤ x < 25	Carc. 2 H351, STOT RE 1 H372, Skin Sens. 1 H317, Classification note according to Annex VI to the CLP Regulation: 7 S

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again. Contact with molten material causes thermal burns.
INHALATION: The product as such is not inhalable. In case of inhalation of welding fumes, provide fresh air; in the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

In case of allergic reaction, seek medical advice immediately.

SECTION 5. Firefighting measures

5.1. Extinguishing media

The product is not considered flammable but will burn at high temperatures.

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of this document) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up
Collect the leaked product and place it in containers for recovery or disposal.
Contaminated material should be disposed of in compliance with the provisions set forth in section 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling
Handle with care, to avoid cuts, punctures and abrasions. Avoid leaving the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities
Store only in the original container. Store in closed containers, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)
Arc welding

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

In case of welding, please consider the following parameters

Substance	TLV-TWA (ACGIH 2021) mg/m^3
Nickel, as metal	1,5 (inhalable)
Nickel, insoluble compounds	0,2 (inhalable)
Nickel, soluble compounds	0,1 (inhalable)
Chromium as metal, and inorganic insoluble compounds (as Cr)	0,5 (inhalable)
Chromium (VI) compounds which are carcinogens within the meaning of point (i) of Article 2(a) of directive 2004/37 (as chromium)	0,025 until 17/01/2025 for welding processes
	0,005 after 17/01/2025 for welding processes
Molybdenum, soluble compounds	0,5 (respirable)
Molybdenum as metal and insoluble compounds	3 (respirable) 10 (inhalable)
Aluminium as metal and insoluble compounds (as Al)	1 (respirable)
PNOC (particulates not otherwise classified)	3 (respirable) 10 (inhalable)

8.2. Exposure controls

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m^3; PNOC inhalable fraction: 10 mg/m^3). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION
In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (see standard EN 374).
Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION
In case of welding, wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION
When welding in confined spaces, or where local exhaust or ventilation does not keep exposure below occupational exposure limits, evaluate the need to use a full face respirator conforming to EN 143.

THERMAL HAZARD PROTECTION
In case of welding, wear suitable clothing for the protection against heat, splashes and sparks.

ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties **9.1. In**

Appearance	solid
Colour	silver grey
Odour	characteristic
pH	Not applicable
Melting point / freezing point	1480-1800 °C

Initial boiling point	Not applicable
Boiling range	Not applicable
Flash point	Not flammable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not flammable
Lower explosive limit	Not applicable
Upper explosive limit	Not applicable
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative density	Not availalbe
Solubility	Insoluble inwater
Partition coefficient: n-octanol/water	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
Viscosity	Not applicable
Particle characteristics	Not available

9.2. Other information
Specific gravity: 8,0 g/cm^3

SECTION 10. Stability and reactivity

10.1. Reactivity

The material is stable under normal conditions and at the expected temperature during storage and handling. It can react in contact with strong acids and bases.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

Contact with strong acids and bases.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Welding fumes may contain metal oxides.

SEZIONE 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information
Information not available

Information on likely routes of exposure
Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Information not available

Interactive effects
Information not available

ACUTE TOXICITY
LC50 (Inhalation) of the mixture: Not classified (no significant component)
LD50 (Oral) of the mixture: Not classified (no significant component)
LD50 (Dermal) of the mixture: Not classified (no significant component)

NICKEL
LD50 (Oral) > 9000 mg/kg Rat

SKIN CORROSION / IRRITATION
Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION
Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION
Sensitising for the skin

GERM CELL MUTAGENICITY
Does not meet the classification criteria for this hazard class

CARCINOGENICITY
Suspected of causing cancer

REPRODUCTIVE TOXICITY
Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE
Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE
Causes damage to organs

ASPIRATION HAZARD
Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

None

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity
Information not available

12.2. Persistence and degradability
NICKEL

Degradability: information not available

12.3. Bioaccumulative potential
NICKEL

BCF	7

12.4. Mobility in soil
Information not available

12.5. Results of PBT and vPvB assessment
On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Endocrine disrupting properties
Information not available

12.7. Other adverse effects
Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods
The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Contained substance

Point	27	NICKEL

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Valutazione della sicurezza chimica

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Carc. 2	Carcinogenicity, category 2
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1

Skin Sens. 1	Skin sensitization, category 1
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H317	May cause an allergic skin reaction.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
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14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.
Product`s classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12.
The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous revision: sections 1 – 16.
Reason for modification: Update to Reg. 878/2020 and Harmonized classification of Nickel