

Safety data sheet

in accordance with Regulation (EC) No. 1907/2006 (REACH), as amended by 2015/830 / EU



RW 308L - RW 308L AWS - RW 308LSi - RW 309L - RW 309Si - RW 309LSi - RW 309LMo - RW 310 - RW 316L - RW 316L AWS - RW 316LSi - RW 316H - RW 317L AWS - RW 318Si - RW 385

Revision: 2.0

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SECTION 4: First aid measures

4.1 Description of First Aid Measures

General notes

No specific action is required.

If inhaled

The product is a non-powdery solid, therefore not inhalable. In case of inhalation of welding fumes, expose it to open air and consult a physician.

In contact with skin

Recommended gloves to prevent bite and abrasion cuts. No specific chemical risk measures are required. In case of doubt or allergic symptoms, contact a physician.

In contact with eyes

Unplanned contact. In case of welding protect your eyes from splashes and sparks.

If swallowed

Penetration path of very difficult probability. Contact a doctor in case of discomfort.

4.2 Most important symptoms and effects, both acute and delayed

The product does not produce any symptoms or effects. In particularly sensitive people it can cause allergic reactions to the presence of nickel

4.3 Indication of any immediate medical attention and special treatment needed

If you have any allergic reactions, consult a physician immediately

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

All extinguishing media are suitable: water spray, foam, dry extinguishing powder, carbon dioxide (CO₂). In the case of electric welding, avoid the use of water.

Unsuitable extinguishing media

None. Only in the case of electric welding avoid the use of water

5.2 Special hazards arising from the substance or mixture

None

Dangerous combustion products

Metal smokes, metal oxides.

5.3 Advice for firefighters

Use extinguishing media with reasonable precautions at reasonable distance. Wear self-contained breathing apparatus in case of smoke.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear manual gloves.

6.2 Environmental precautions

Keep away from drains, surface water and ground water.

6.3 Methods and material for containment and cleaning up

Recommendations on how to contain a spill

None in particular.

Recommendations on ways of reclamation of a leak

Capture / collect mechanically or manually.

Other information regarding spills and releases

Store in suitable containers for disposal

Reference to other sections

Hazardous combustion products: cf. section 5. Personal protective equipment: see section 4.4. section 8. Incompatible materials: cf. Section 10. Disposal considerations: cf. section 13.

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6.4 Reference to other sections

Refer to Section 8 for PPE and Section 13 for Disposal Considerations

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle carefully to avoid cuts, bites and abrasions. Wear mechanical gloves if necessary.

General recommendations on professional hygiene

Wash your hands before breaks and at the end of the work.

7.2 Conditions for safe storage, including any incompatibilities

Keep separate from corrosive chemicals such as strong acids and bases.

Incompatible substances or mixtures

Strong acids and bases.

Other information to consider

- **Ventilation provisions**

Use general ventilation (local during welding).

- **Specific design of premises or storage containers**

None

7.3 Specific end use(s)

Arch welding

SECTION 8: Exposure controls / personal protection

8.1 Control Parameters

Occupational Exposure Values (exposure limits at the workplace)

The alloy as it is provided does not have a professional exposure limit.

In case of welding, we recommend that you consider the following parameters (always check for any limit updates)

Parameter	IT exposure limit	EU exposure limit	TLV-TWA (mg/m ³)	ACGIH
Metallic nickel	-	-	1,5 (A5) fraz. inhalable	
Nickel comp. meth. soluble	-	-	0,01 (A4) fraz. inhalable	
Nickel comp. meth. insoluble (nickel oxide)	-	-	0,02 (A1) fraz. inhalable	
Iron oxide	-	-	5 fraz. respirable	
Manganese	-	-	0,2 fraz. inhalable	
Manganese comp. meth.	-	-	0,02 fraz. respirable	
PNOC (powders not otherwise classified)	-	-	10 inhalable fraction 3 breathable fraction	

8.2 Exposure controls

8.2.1 Appropriate engineering controls

No one specifically for the product as well as supplied.

In case of welding use local aspirations, ensure adequate ventilation. Keep the workplace clean and avoid dust buildup

8.2.2 Individual protection measures, such as personal protective equipment

8.2.2.1 Eye / face protection

Not necessary for the product as supplied. Use dust-proof goggles when welding (UNI EN 166).

8.2.2.2 Skin protection

- **hand protection**

Recommended gloves for mechanical protection of hands during handling.

- **body protection**

There are no specific protections for the body during manipulation. Wear workwear. In case of welding wear specific clothing for heat protection, sprays, sparks.

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8.2.2.3 Respiratory protection

Not necessary for the product as supplied. Respiratory protection in case of smoke diffusion during welding (carry out a specific risk assessment). FFP dust filter (EN 143). Color code: white. The category is to be evaluated according to the exposure.

8.2.2.4 Thermal hazards

Not necessary for the product as supplied. In case of welding wear specific clothing for heat protection, sprays, sparks.

8.2.3 Environmental exposure controls

Keep away from drains, surface water and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- a) Appearance
Physical state: solid
Color: silver gray
- b) Odor: characteristic (metallic)
- c) Olfactory threshold: not known
- d) pH: not relevant
- e) Melting Point / Freezing Point: 1480-1800 °C
- f) Initial boiling point and boiling range: not relevant
- g) Flash point: not flammable
- h) Evaporation rate: not relevant
- i) Flammability (solid and gas): not classified flammable
- j) Upper / lower flammability or explosive limits: not applicable
- k) Vapor pressure: not relevant
- l) Vapor density: not relevant
- m) Relative density: not defined
- n) Solubility / solubility: not soluble in water
- o) Partition coefficient: n-octanol / water: Not applicable
- p) Self-ignition temperature: not applicable
- q) Decomposition temperature: Not applicable
- r) Viscosity: not relevant
- s) Explosive properties: not classified as explosive
- t) Oxidizing properties: none

9.2 Other information

Specific weight: 8.0 g / cm³

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

The material is stable in normal environment and under the expected temperature conditions during storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known

10.4 Conditions to Avoid

Contact with acids and strong bases, if not deliberately desired during processing

10.5 Incompatible materials

There is no additional information.

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10.6 Hazardous decomposition products

Hazardous combustion products: cf. section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

It is not classified as acutely toxic.

Skin corrosion/irritation

It is not classified as corrosive / irritating to the skin.

Serious eye damage / irritation

It is not classified as irritant or as causing serious eye damage.

Respiratory or skin sensitization

It is not classified as a respiratory or skin sensitizer. Contains nickel, sensitizing, in quantities of less than 1% by weight.

Summary of CMR property evaluation

It is not classified as mutagenic on germ cells, carcinogenic or toxic to reproduction

Specific Target Organ Toxicity - Single Exposure

It is not classified as specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

It is not classified as specific target organ toxicant (repeated exposure).

Danger in the event of suction

It is not classified as dangerous in case of suction.

Symptoms related to physical, chemical and toxicological characteristics

• In case of ingestion

Data is not available

• In case of contact with eyes

Data is not available

• In case of inhalation

The product as supplied is a non-powdery solid. Consider the possibility of inhaling fumes during welding that can lead to fever, nausea, dizziness, dryness and irritation of the nose, throat and eyes.

• In case of skin contact

No symptoms are expected. In the case of particularly sensitive persons, the presence of nickel can cause allergic reactions.

More information

None

SECTION 12: Ecological information

12.1 Toxicity

- Aquatic toxicity
According to 1272/2008 / EC: Not classified as hazardous to the aquatic environment.
According to WGK (Germany): hazard for water class 1 - little hazardous (self-classification)

12.2 Persistence and degradability

No data available

12.3 Bioaccumulation potential

No data available

12.4 Mobility in soil

Not relevant

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Other Adverse Effects

No adverse effects are known

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SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Dispose of to an authorized smelter. In Italy, treat waste as provided by Legislative Decree 152/2006. In other states, apply the current legislation.

Disposal through wastewater - relevant information

Do not dispose of residues in sewers or surface water or groundwater.

Relevant provisions concerning waste

Determination of waste codes / denominations, according to the waste catalog, it must be carried out by the refuse manufacturer in a specific manner depending on the sectors and processes. The waste generated by this product and which is not dangerous. Any type of rigid container can be used for the collection of waste.

Remarks

Waste should be separated according to categories that can be treated separately from local or national waste management facilities. Refer to the relevant national or regional prescriptions

SEZIONE 14: Transport information

14.1. UN number

Not subject to ADR, RID, ADN, IMDG, and IATA regulations.

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. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

- Regulation 649/2012 / EU on the export and import of dangerous chemicals (PIC): Not applicable.
- Regulation 1005/2009 / EC on substances that reduce the ozone layer: Not applicable.
- Regulation 850/2004 / EC on Persistent Organic Pollutants (POP): Not applicable.
- Restrictions according to REACH, Annex XVII: Not applicable. Nickel is on the list, but only for jewelry that can be worn.
- List of substances subject to authorization (REACH, Annex XIV): Not applicable.
- Directive 2011/65 / EU on the restriction of the use of certain hazardous substances in RoHS electrical and electronic equipment) - Annex II: Not applicable.
- Regulation 166/2006 / EC on the establishment of a European Pollutant Release and Transfer Register (PRTR): Not applicable.
- Directive 2000/60 / EC establishing a framework for Community action in the field of water policy: not listed.
- WGH (Germany): hazard for water class 1 - little hazardous (self-classification).

15.2 Chemical Safety Assessment

No chemical safety assessment was conducted for this mixture.

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SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of Abbreviations Used
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by inland Navigation)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement on the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (a numerical identifier for the unique detection of a chemical that has no chemical significance).
CLP	Regulation (EC) No. 1272/2008 on Classification, Labeling and Packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or Toxic To Reproduction
EINECS	European Inventory of Existing Commercial Chemical Substances (European Inventory of Existing Chemical Substances)
ELINCS	European List of Notified Chemical Substances
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of Marine Pollutant)-
NLP	No-Longer Polymer (ex polymer)
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulation concerning the international carriage of dangerous goods by rail)
vPvB	very Persistent and very Bioaccumulative
H351	Suspected of causing cancer
H317	It can cause a skin allergic reaction

Main bibliographic references and data sources

- Regulation (EC) No. 1907/2006 (REACH), as amended by 2015/830 / EU
- Regulation (EC) No. 1272/2008 (CLP, EU-GHS)

Disclaimer

The information contained in this sheet corresponds to our knowledge at the time of review. The information is intended to give you information on the safe use of the product on the sheet with the safety data for the storage, processing, transport and disposal. The directions have no value for other products. If the product is mixed with other materials or processed, the information contained in the safety data sheet is only indicative to the new material.

Amendments to the previous revision of ~~EFEGEGF~~: Adaptation to Regulation 2015/830 / EU of all sections 1 to 16.