

SAFETY DATA SHEET

According to Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

1. Identification of the mixture and of the company

1.1 Product identifier

Name: **EUROTROD RC 14**
Product: Stick electrode for welding

1.2 Relevant identified uses of the mixture and uses advised against

Application: Manual arc welding
Classification: AWS A5.1: E 6013
EN ISO 2560-A-E 38 A RC 1 1

Uses advised against: No additional information available.

1.3 Details of the supplier of the safety data sheet

Electro Portugal, Lda. - Parque Tejo - Estrada Nacional nº 10,
Km 131,200, Bloco E, Fração A - 2625-445 Forte da Casa
Telephone: +351 21 361 64 00
Fax: +351 21 364 31 78
E-mail: dir.comercial@electro-portugal.pt

1.4 Emergency telephone number

Emergency phone number: 112
CIAV - Centro de Informação Antivenenos (Portuguese Poison Centre)
Tel.: + 351 800 250 250
Fax: + 351 213 303 275

2. Hazards identification

2.1 Classification of the substance or mixture

The mixture is not classified as hazardous according to Regulation (EC) No. 1272/2008. It is considered a stable mixture in the physical state in which it is made available to the customer.

Adverse physicochemical, human health and environmental effects: No additional information available.

2.2 Label elements

Welding consumables have a compact constitution and are to be considered as equivalent to metals in massive form. Consequently, derogation from labelling requirements shall apply according to EEC/67/548 directive (Annexe VI) and 1272/2008 (EC) regulation (Article 23).

Labelling not applicable.

EUH210 Safety data sheet available on request.

EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

2.3 Other hazards

In its application the following aspects must be considered:

High temperatures: the sparks proceeding from the casting material can provoke fires, or burnings in the skin.

Radiation: the radiation emitted from the electric arc can cause wounds in the eyes and burnings in the skin.

Electric discharges: can provoke the death.

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Fumes and vapours: continuous exposure to vapours and fumes formed during welding can cause irritation in the respiratory tract, metal oxide fever. According to NIOSH (National Institute for Occupational Safety and Health) and IARC (International Agency for Research on Cancer) the vapours and fumes formed during welding processes are suspected of being carcinogenic.

Hazard statements

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P285 In case of inadequate ventilation wear respiratory protection.

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

This mixture does not meet the PBT criteria of REACH regulation, annex XIII

This mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substances with endocrine-disrupting properties (< 0.1 %).

3. Composition/information on ingredients

3.1 Substances

The material placed on the market is a mixture of metals and metal alloys, so this point does not apply.

3.2 Mixtures

Iron	
Register number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	231-096-4
CAS	7439-89-6
%	0-10
Classification according to Regulation (EC) 1272/2008 (CLP), M factors	Not classified
Manganese	
Register number (REACH)	01-2119449803-34-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	231-105-1
CAS	7439-96-5
%	5-15
Classification according to Regulation (EC) 1272/2008 (CLP), M factors	Not classified
Rutile	
Register number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	215-282-2
CAS	1317-80-2
%	25-60
Classification according to Regulation (EC) 1272/2008 (CLP), M factors	Not classified
Cellulose	
Register number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	232-674-9
CAS	9004-34-6

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% 0-15
Classification according to Regulation (EC) 1272/2008 ---
(CLP), M factors

4. First aid measures

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Disconnect and turn off the power. If the victim is semi- or unconscious, open the airway. If the victim cannot breathe, give artificial respiration. If there is no pulse, massage the chest and apply artificial respiration.

4.1 Description of first aid measures

During welding

Inhalation

If inhaled remove patient to fresh air and keep at rest in a position comfortable for breathing. If exposed or concerned call a doctor.

Skin contact

Submerge affected area in cold water until burning sensation ceases and refer for immediate medical attention.

Eyes contact

Irrigate eye with sterile water, cover with damp dressing and refer for immediate medical attention if irritation persists. If on skin immediately wash with water, get medical attention for skin irritation.

Ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwell.

In case of electric shock

Unplug and turn off the power. Use non-conductive material to keep the victim away from phase parts or wires. If the victim is not breathing, start artificial respiration, preferably mouth-to-mouth. If no pulsation is detected, begin pulmonary cardio resuscitation (CPR) and call a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

After inhalation

Welding fumes are classified carcinogenic to humans "group 1" by IARC (Monograph 118, 2017).

After skin contact

The melted product adheres to the skin and causes burns.

After eye contact

Arc rays can injure eyes and burn skin. Irritation or eye burns due to the radiation thermal, infrared, or ultraviolet (arc welding).

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Firefighting measures**5.1 Extinguishing media**

CO₂, sand, extinguishing powder, metal extinguisher.

During welding

Equipment adjusted for extinguishing of fires such as buckets with sand or a dry chemical extinguisher will have to be readily available.

5.2 Special hazards arising from the substance or mixture

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Fire hazard: The product is not flammable.

Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3 Advice for firefighters

"Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

6. Accidental release measures

It is not necessarily specific procedures.

6.1 Personal precautions, protective equipment, and emergency procedures

General ventilation and local fume extraction must be adequate to keep fume concentrations within safe limits. Use respiratory equipment when welding in a confined space. Wear protective clothing and eye protection appropriate to arc welding. Skin contact should be avoided to prevent possible allergic reactions.

6.1.1 For non-emergency personnel

Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust / fume / gas / mist / vapours / spray. Avoid contact with skin and eyes.

6.1.2 For emergency responders

Do not attempt to act without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2 Environmental precautions

Avoid release to the environment. Try to prevent the material from entering drains or water courses.

6.3 Methods and material for containment and cleaning up

Notify authorities if product enters sewers or public waters.

Take up mechanically (preferable by vacuum cleaning or gentle sweeping).

Dispose of materials or solid residues at an authorized site.

6.4 Reference to other sections

For further information refer to section 13.

7. Handling and storage

7.1 Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Ensure adequate ventilation for the welder and others. Use respiratory equipment when welding in a confined space. Wear protective clothing and eye protection appropriate to arc welding.

Do not eat, drink, or smoke when using this product. Always wash hands after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Store in dry protected location to prevent any moisture contact.

7.3 Specific end use(s)

Welding Products.

8. Exposure controls/personal protection

8.1 Control parameters

Iron

Manganese

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VLE-MP	TLV-TWA (ACGIH) 10 mg/m3 (inhalable particles), 3 mg/m3 (respirable particles)	VLE-MP	(0,02 mg/m3(Breathable Fraction)) 0.1 mg/m3(Inhalable Fraction)
Critical effect:	---	Critical effect:	(Central Nervous System Disorder)
Notation:	---	Notation:	Agents not classifiable as human carcinogens
Source:	Safety data sheet of the supplier of the raw material.	Source:	NP1796

Rutile	
VLE-MP	10 mg/m3
Critical effect:	Lower respiratory tract irritation
Notation:	Agents not classifiable as human carcinogens
Source:	NP1796

Cellulose	
VLE-MP	10 mg/m3
Critical effect:	Irritation of the upper respiratory tract
Notation:	---
Source:	NP1796

8.2 Exposure controls

Appropriate engineering controls:

General ventilation and local fume extraction must be adequate to keep fume concentrations within safe limits.

Materials for protective clothing

Clothing protection suitable for welding operations and comply with standards EN 470 - 1 and EN 531.

Hand protection

Welding gloves in leather and refractory fleece with cufflinks, complying with standard EN 12477.

Eye protection

Eye protection equipment must conform to standard EN 175.

Skin and body protection

Clothing protection suitable for welding operations and comply with standards EN 470 - 1 and EN 531.

Respiratory protection

When using the product in a confined environment or excessive production of smoke, wear a mask equipped with a built-in respiratory filter type FFP3 or a stand-alone system ventilation, complies with EN 12941.

Personal protective equipment symbol(s):



Environmental Exposure Controls: Avoid release to the environment.

9. Physical-chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Solid
Colour:	Product specific
Odour:	No data available
Odour threshold:	No data available
pH:	No data available
Relative evaporation rate (butyl acetate=1):	No data available

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Melting point:	> 1200 °C
Freezing point:	Not applicable
Boiling point:	No data available
Flash point:	Not applicable
Auto-ignition temperature:	Not applicable
Decomposition temperature:	No data available
Flammability (solid, gas):	The product is not flammable
Vapour pressure:	No data available
Relative vapour density at 20 °C:	No data available
Relative density:	No data available
Solubility:	No data available
Partition coefficient n-octanol/water (Log Pow):	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available
Explosive limits:	Not applicable

9.2 Other information

No additional information available

10. Stability and reactivity**10.1. Reactivity**

Contact with chemical substances could cause generation of gas.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Acids, alkalis, and oxidizing agent.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced because of use, storage, spill, and heating are not known. Hazardous decomposition products include those from the volatilization, reaction or oxidation of the material listed in section 3 and those from the base metal and coating. Manganese has a low exposure limit, in some countries, that may be easily exceeded. Reasonably expected gaseous products would include carbon oxides, nitrogen oxides and ozone. Reasonably expected fume constituents of this product would include oxides of metals.

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

Overexposure to gases, fumes and dusts may include irritation of the eyes, lungs, nose, and throat. Some toxic gases (associated with welding) may cause pulmonary oedema, asphyxiation, and death. Acute overexposure may include signs and symptoms such as watery eyes, nose and throat irritation, headache, dizziness, difficulty in breathing, frequent coughing, or chest pain.

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Toxicity of the mixture as it is placed on the market

Acute oral toxicity:	There are no data
Acute dermal toxicity:	There are no data
Acute inhalation toxicity:	There are no data
Skin corrosion/irritation:	There are no data
Serious eye damage/eye irritation:	There are no data
Respiratory or skin sensitization:	There are no data
Carcinogenicity:	There are no data
Reproductive toxicity:	There are no data
Specific target organ toxicity - single exposure (STOT-SE):	There are no data
Specific target organ toxicity - repeated exposure (STOT-RE):	There are no data
Expiration Hazard:	There are no data
Symptoms:	There are no data
Toxicity of the mixture components:	

Iron

Acute oral toxicity:	Based on available data, the classification criteria are not met.
Skin corrosion/irritation:	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation:	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization:	Based on available data, the classification criteria are not met.
Reproductive toxicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure (STOT-SE):	Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure (STOT-RE):	Based on available data, the classification criteria are not met.
Expiration Danger:	Based on available data, the classification criteria are not met.
Human experience:	Based on available data, the classification criteria are not met.

Manganese

Acute oral toxicity:	Oral >2000 mg/kg. Inhalation: dust/mist >5.14 mg/l/4h
Skin corrosion/irritation:	Based on available data, the classification criteria are not met. Shall not be classified as corrosive/irritant to skin.
Serious eye damage/eye irritation:	Shall not be classified as seriously damaging to the eye or eye irritant.
Respiratory or skin sensitization:	Shall not be classified as a respiratory or skin sensitiser.
Reproductive toxicity:	Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.
Carcinogenicity:	Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.
Specific target organ toxicity - single exposure (STOT-SE):	Data not available.
Specific target organ toxicity - repeated exposure (STOT-RE):	Data not available.
Expiration Danger:	Shall not be classified as presenting an aspiration hazard.
Human experience:	Data not available.

Rutile

Acute oral toxicity:	Non-toxic. There are no known hazards resulting from accidental ingestion of small amounts of rutile sand as may occur during normal handling. Ingestion of larger amounts may cause irritation to the gastro-intestinal system, mainly as a result of abrasion.
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Skin corrosion/irritation:	Not classified as a skin irritant. Contact may result in mechanical irritation.
Serious eye damage/eye irritation:	Not classified as an eye irritant. Contact may result in mechanical irritation.
Respiratory or skin sensitization:	This product is not known to be a skin or respiratory sensitiser.
Reproductive toxicity:	No evidence of mutagenic effects.
Carcinogenicity:	Not classifiable as a human carcinogen.
Specific target organ toxicity - single exposure (STOT-SE):	No known effects from this product.
Specific target organ toxicity - repeated exposure (STOT-RE):	Rutile sand contains low levels of naturally occurring radioactive elements of the uranium and thorium series. It has typical specific activities of 0.05 to 0.65 Bq/g (thorium-232) and 0.2 to 0.75 Bq/g (uranium-238). Low level gamma radiation from bulk or bagged stockpiles of rutile sand can increase gamma levels slightly above normal background.
Expiration Danger:	Rutile sand contains low levels of naturally occurring radioactive elements of the uranium and thorium series. It has typical specific activities of 0.05 to 0.65 Bq/g (thorium-232) and 0.2 to 0.75 Bq/g (uranium-238). Low level gamma radiation from bulk or bagged stockpiles of rutile sand can increase gamma levels slightly above normal background.
Human experience:	Data not available.

Cellulose

Acute oral toxicity:	Data not available.
Skin corrosion/irritation:	No property described as dangerous.
Serious eye damage/eye irritation:	No property described as dangerous.
Respiratory or skin sensitization:	Data not available.
Reproductive toxicity:	Data not available.
Carcinogenicity:	Data not available.
Specific target organ toxicity - single exposure (STOT-SE):	Data not available.
Specific target organ toxicity - repeated exposure (STOT-RE):	Data not available.
Expiration Danger:	Data not available.
Human experience:	Powders can irritate the respiratory tract, skin, and eyes.

11.2 Information on other hazards

Blend as it is placed on the market **EUROTROD RC 14**

Endocrine-disrupting properties: Not applicable to mixtures

Other information: There is no relevant special information concerning adverse health effects.

12. Ecological information

12.1 Toxicity

Blend as it is placed on the market **EUROTROD RC 14**

There are no data

Mixture components:

Iron	The product is not expected to be dangerous to the environment.
Manganese	Toxic to aquatic organisms.
Rutile	This product is not anticipated to cause adverse effects to animal or plant life if released to the environment in small quantities.

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Cellulose Data not available.

12.2. Persistence and degradability

Blend as it is placed on the market **EUROTROD RC 14**

There are no data

Mixture components:

Iron	Not determined
Manganese	Inorganic product which is not eliminable from water through biological cleaning processes. Degradability of organic substances: The study does not need to be conducted because the substance is inorganic. Biodegradation: The study does not need to be conducted because the substance is inorganic.
Rutile	Not applicable.
Cellulose	Data not available.

12.3. Bioaccumulation potential

Blend as it is placed on the market **EUROTROD RC 14**

There are no data

Mixture components:

Iron	Not determined
Manganese	Data not available.
Rutile	This product is not expected to bioaccumulate.
Cellulose	Data not available.

12.4 Mobility in soil

Blend as it is placed on the market **EUROTROD RC 14**

There are no data

Mixture components:

Iron	No other relevant information is available.
Manganese	Data not available.
Rutile	This product has low mobility in soil.
Cellulose	Data not available.

12.5 Results of PBT and vPvB assessment

Blend as it is placed on the market **EUROTROD RC 14**

This mixture does not meet the PBT criteria of REACH regulation, annex XIII

This mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Mixture components:

Iron	Not applicable.
Manganese	The study does not need to be conducted because the substance is inorganic. According to the results of its assessment, this substance is not a PBT or a vPvB.
Rutile	Data not available.
Cellulose	Data not available.

12.6 Endocrine disrupting properties

Blend as it is placed on the market **EUROTROD RC 14**

No additional information available

Mixture components:

Iron	Not applicable.
Manganese	Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC)

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No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Rutile Data not available.
Cellulose Data not available.

12.7 Other adverse effects

Blend as it is placed on the market **EUROTROD RC 14**

There are no data

Mixture components:

Iron	Not applicable.
Manganese	The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.
Rutile	Data not available.
Cellulose	No dangerous property to report. However, this does not exclude the possibility that large or frequent spills could have a detrimental or detrimental effect on the environment.

13. Disposal considerations

13.1 Waste treatment methods

Waste treatment methods: Dispose of contents/ container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Spent fume extraction filters shall be disposed of as dangerous waste.

European List of Waste (LoW) code: 12 01 13 - welding wastes

14. Transport information

14.1 UN number or ID number

ADR	IMDG	IATA	ADN	RID
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

14.2 UN proper shipping name

ADR	IMDG	IATA	ADN	RID
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

14.3 Transport hazard class(es)

ADR	IMDG	IATA	ADN	RID
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

14.4 Packing group

ADR	IMDG	IATA	ADN	RID
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

14.5 Environmental hazards

ADR	IMDG	IATA	ADN	RID
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

14.6 Special precautions for user

Overland transport

Not applicable

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Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable

15. Regulatory information

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

Consider the restrictions:

When handling chemical products, general hygiene measures must be applied.

15.2 Chemical safety assessment

A chemical safety assessment is not foreseen for mixtures.

16. Other information

Abbreviations and acronyms:

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the registration, evaluation, authorization, and restriction of chemical products (REACH)

REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the classification, labelling and packaging of substances and mixtures, which amends and repeals Directives 67/548/EEC and 1999/45/EC, and amends Regulation (EC) No. 1907/2006

Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging, and labelling of dangerous substances.

REGULATION (EC) Nº1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the registration, evaluation, authorization, and restriction of chemical products (REACH), which creates the European Chemicals Agency, which amends Directive 1999/45/EC and repeals the Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94, as well as Council Directive 76/769/EEC and Directives 91/155/EEC, 93/67/EEC, 93/105/EC, and 2000/21/EC of the Commission

NP 1796 Portuguese standard - Safety and health at work. Limit values for occupational exposure to chemical agents

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

IARC International Agency for Research on Cancer

IATA International Air Transport Association

Nº CAS number CAS

IMDG International Maritime Code for the Transport of Dangerous Goods

LC Lethal concentration

LD Average lethal dose

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ECx: These are the concentrations at which x % (10% for ec10) effect was observed or statistically derived when compared to the control group. It is usually derived from long-term ecotoxicity studies.

vPvB Very persistent and very bio accumulative

NIOSH National Institute of Occupational Safety and Health

PBT Persistent, bio accumulative and toxic

REACH Regulation (EC) N^o1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

RID Provisions relating to the international carriage of dangerous goods by rail.

VLE-MP Exposure limit value - weighted average

Electro Portugal is available to provide any additional information.