

**MOST E 71 T-1**

Acc. to: 1907/2006/EG, 2015/830

Issue, dated: 2018.09.24

Version EN: 2.0;

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier****MOST E 71 T-1****1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses:

Arc welding

EN ISO 17632-A: T 42 4 R C/M 2 H10

SFA / AWS 5.20: E 71 T1 C

Uses advised against:

not applicable

**1.3. Details of the supplier of the safety data sheet****RYWAL – RHC Sp. z o.o.**

ul. Polna 140B, 87-100 Toruń

Tel. +56 66 93 800, fax. +56 66 93 805

E-mail address of the person responsible for data sheet: [rywal@rywal.com.pl](mailto:rywal@rywal.com.pl);**1.4. Emergency telephone number**112 (general emergency telephone number), 998 (fire-brigade),  
999 (ambulance);**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**Acc. to 1272/2008

The product in the form in which it is placed on the market (solid form) does not pose a risk to human health as a result of respiratory exposure, ingestion or contact with the skin or the environment.

**2.2. Label elements**

According to Annex I, 1.3.4 Regulation WE1272 / 2008 the product does not require labeling.

**2.3 Other hazards:**

Use gloves to protect hands from injury.

This product contains nickel which is dangerous to health and the environment.

The product contains titanium dioxide and cryolite, with long-term effects can be harmful.

People with pacemakers should not be near welding or cutting until they consult a physician and will not receive information from the manufacturer of this device.

In the welding process, the most important threats are heat, radiation, electric shock and welding fumes.

Heat: splashing and melting of metal can cause burns and fire.

Radiation: Radiation can damage the eyes and the skin.

Electric current: An electric shock can cause death.

Dusts and fumes: Excessive exposure to welding fumes can cause dizziness, headache, nausea, dryness, and irritation of the nose, throat, or eyes.

Chronic inhalation of fumes can cause lung problems.

**SECTION 3: Composition/information on ingredients****3.1 Substances:**

Not applicable.

**3.2 Mixtures:**

Tubular electrode containing a flux.

Hazardous components:

Product identifier	Contains [%]	Classification	
		Hazard Class and Category Code(s)	Hazard Statement Code(s)
Cryolite CAS No.: 15096-52-3 EINECS No.: 239-148-8 Index No.: 009-016-00-2 REACH no.: 01-2119511565-43	<0,5	STOT RE 1 Acute Tox. 4 Aquatic Chronic 2	H372 H332 H411

**MOST E 71 T-1**

Acc. to: 1907/2006/EG, 2015/830

Issue, dated: 2018.09.24

Version EN: 2.0;

Iron CAS No.: 7439-89-6 EINECS No: 231-096-4 Index No.: - REACH No.: 01-2119462838-24	80 – 90	-	-
Manganese CAS No.: 7439-96-5 EINECS No.: 231-105-1 Index No.: - REACH No.: -	1 – 5	-	-
Nickel CAS No.: 7440-02-0 EINECS No.: 231-111-4 Index No.: 028-002-00-7 REACH No.: -	<0,5	Carc.2 STOT RE1 Skin Sens.1	H351 H372 H317
Titanium dioxide CAS No.: 13463-67-7 EINECS No.: 236-675-5 Index No.: - REACH No.: -	5 – 10	-	-

Additional information: For full text of H-statements: see SECTION 16

**SECTION 4: First aid measures****4.1 Description of first aid measures:**General information.

The following procedures relate to exposure to dust and smoke generated during the use of the product.

The product in solid form does not pose a threat to human health. It is recommended that you respect the general safety rules and procedures.

**Skin contact:**

In case of contact with hot or molten product contact your doctor. Cool your skin with cold water.

**Eye contact:**

Rinse for several minutes (about 15) with plenty of water, holding eyelids apart. Avoid strong stream, due to the risk of corneal damage, contact your doctor.

**Inhalation:**

Move the victim to fresh air and place in a stable side position, keep warm and calm.

**Ingestion:**

No possibility of exposure due to product form.

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

No information.

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

The decision about how to proceed is made by the doctor after the assessment of the victim.

Electric shock: Disconnect and turn off the power. Use nonconductive material to pull the victim from wires or objects.

If not breathing - use artificial respiration by mouth - mouth method. If there is no pulse, start a heart massage.

Immediately call a doctor.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

**Suitable extinguishing media:** Use appropriate extinguishing method for conditions.

**Unsuitable extinguishing media:** none.

**5.2. Special hazards arising from the substance or mixture**

Solid product is not flammable. During fire hazardous decomposition products may be released. Welding arc and splashes can ignite flammable materials.

**MOST E 71 T-1**

Acc. to: 1907/2006/EG, 2015/830

Issue, dated: 2018.09.24

Version EN: 2.0;

**5.3. Advice for firefighters**

In the event of a fire in a confined space should wear protective clothing and breathing apparatus with compressed air. Do not allow fire-fighting water run-off into surface water, groundwater and sewer.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

The product in solid form does not pose a risk of accidental and unintentional release.

*For non-emergency personnel:* No special requirements.

*For emergency responders:* No special requirements.

**6.2. Environmental precautions**

Prevent from spreading or escaping into drains and reservoirs.

**6.3. Methods and material for containment and cleaning up**

No special requirements. Pick up mechanically.

**6.4. Reference to other sections**

Disposal considerations – see section 13.

Personal precautions – see section 8.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Wear protective gloves when handling welding materials. Avoid inhalation of fumes and dusts. Work in accordance with the principles of safety and hygiene: Do not eat, drink and smoke at work, wash your hands after use, remove contaminated clothing and protective equipment before entering places for meals. Follow the instructions provided on the label and instructions for use.

**7.2. Conditions for safe storage, including any incompatibilities**

No special requirements.

**7.3. Specific end use(s)**

See section 1.2.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

Occupational Exposure Limits (PL):

Nickel and its compounds with the exception of nickel carbonyl tetrachloride - calculated as Ni: 0,25mg/m<sup>3</sup> (8h);

Manganese and its inorganic compounds – calculated as Mn:

- Inhalation fraction: 0,2mg/m<sup>3</sup> (8h);

- Respirable fraction: 0,05mg/m<sup>3</sup> (8h);

Dusts of titanium dioxide containing free crystalline silica below 2% and not containing asbestos:

- Inhalation fraction: 10mg/m<sup>3</sup> (8h);

**8.2. Exposure controls**

**Appropriate engineering controls:**

Ensure effective ventilation and local extraction at the welding station to remove fumes from the inhalation zone.

Keep workplace and protective clothing clean and dry.

Regularly check the condition of protective clothing and equipment.

**MOST E 71 T-1**

Acc. to: 1907/2006/EG, 2015/830

Issue, dated: 2018.09.24

Version EN: 2.0;

**Individual protection measures, such as personal protective equipment:****Eye protection:**

Use safety glasses (according to EN 166) – appropriate for welding work.

**Skin protection:**

Hands:

Use protective gloves to prevent burns – appropriate for welding work.

The selection of suitable gloves does not only depend on the material, but also on the brand and quality resulting from differences in manufacturers. Resistance of the material, the glove can be determined after the tests. The exact time of the destruction of the protective gloves must be determined by the manufacturer.

*Other:*

Wear protective clothing working - wash regularly.

**Respiratory Protection:**

Use respirators or masks with an independent air supply when working in tight or confined spaces or where there is no effective ventilation to keep the dose at a safe level. Particular caution should be taken when welding painted or coated sheets, due to the possibility of emissions from coatings of hazardous substances.

**Thermal hazards:**

Not applicable.

**Environmental exposure controls:**

Prevent the spread in the environment and enter drains and watercourses.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties:**

Appearance	Solid
Color	According to specifications
Odour	None
Odour threshold	not determined
pH	not determined
Melting point/freezing point	>1000°C
Initial boiling point and boiling range	not determined
Flash point	not determined
Evaporation rate	not determined
Flammability	not determined
Lower flammability or explosive limits	not determined
Upper flammability or explosive limits	not determined
Vapour pressure	not determined
Vapour density	not determined

**MOST E 71 T-1**

Acc. to: 1907/2006/EG, 2015/830

Issue, dated: 2018.09.24

Version EN: 2.0;

Density	not determined
Solubility(ies)	not determined
Partition coefficient: n-octanol/water	not determined
Self-ignition temperature	not determined
Decomposition temperature	not determined
Viscosity;	not determined
Explosive properties	not determined
Oxidizing properties	not determined

**9.2 Other information:**

None.

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

May react with acids and bases with the release of gases.

**10.2. Chemical stability**

Stable under normal conditions of use, storage and transport.

**10.3. Possibility of hazardous reactions**

None.

**10.4. Conditions to avoid**

No further relevant information available.

**10.5. Incompatible materials**

None.

**10.6. Hazardous decomposition products**

During welding, harmful decomposition products may be in the form of vapors or derived from the reaction or oxidation of the materials listed in Section 3 or of the parent material and coating. The amount of generated fumes during manual welding of the electrode depends on the welding parameters and its size but usually does not exceed 5 to 15g/kg of product. The smoke produced from this product contains ingredients composed of the given elements. Other, according to accepted standards, are not tested. You should be aware of the presence of gaseous components that may contain carbon monoxide, nitrogen oxides, and ozone. Air pollution around welding stations can be the result of welding processes and affect the composition and amount of fumes and gases produced.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

- (a) acute toxicity: none
- (b) skin corrosion/irritation: none
- (c) serious eye damage/irritation: none
- (d) respiratory or skin sensitization: none
- (e) germ cell mutagenicity: none
- (f) carcinogenicity: none
- (g) reproductive toxicity: none
- (h) STOT-single exposure: none
- (i) STOT-repeated exposure: none
- (j) aspiration hazard: none

**Information on likely routes of exposure:**

The following effects relate to exposure to dust and fumes arising from the use of the product.

Respiratory: Excessive exposure to vapors of decomposition products arising in the course of use may result in irritation of the mucous membranes of the nose, throat and further respiratory tract, fever, headache and dizziness,

**MOST E 71 T-1**

Acc. to: 1907/2006/EG, 2015/830

Issue, dated: 2018.09.24

Version EN: 2.0;

nausea and vomiting. There may be laryngitis, bronchitis, edema or chemical pneumonia, cardiac arrhythmia, haemoptysis, behavioral disorders (depression, apathy or euphoria), in extreme cases unconsciousness.

Gastrointestinal tract: Exposure through the gastrointestinal tract to metal oxide vapors can cause symptoms similar to those caused by inhalation.

Skin contact: Direct exposure to solder fumes can cause irritation. May cause an allergic reaction.

Eye contact: Direct exposure to solder fumes can cause irritation.

**SECTION 12: Ecological information**

Product in the form in which it is placed on the market (solid form) does not pose a threat to the aquatic environment.

**12.1. Toxicity**

No information available.

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

No information available.

**12.6. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Dispose of in accordance with local regulations. Use recycling if possible.

**European waste catalogue**

12 01 13 welding wastes

**EU REGULATIONS**

Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

**SECTION 14: Transport information****ADR/RID/IMDG/ICAO:****14.1. UN number**

Product not classified as dangerous during transport.

**14.2 UN proper shipping name**

Product not classified as dangerous during transport.

**14.3 Transport hazard class(es)**

Product not classified as dangerous during transport.

**14.4 Packing group**

Product not classified as dangerous during transport.

**14.5 Environmental hazards**

Product not classified as dangerous during transport.

**14.6 Special precautions for user**

Product not classified as dangerous during transport.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**

Product not classified as dangerous during transport.

**MOST E 71 T-1**

Acc. to: 1907/2006/EG, 2015/830

Issue, dated: 2018.09.24

Version EN: 2.0;

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU REGULATIONS:**

1. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
2. 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, Authorisation and Restriction of Chemicals (REACH)
3. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).
4. Directive 2008/98/EC Of The European Parliament And Of The Council of 19 November 2008 on waste and repealing certain Directives

**15.2 Chemical safety assessment**

A chemical safety assessment has not been carried out for the mixture by the supplier.

**SECTION 16: Other information****Abbreviations and acronyms, list of hazard statements used in the safety data sheet:**

**H317** – May cause an allergic skin reaction

**H332** – Harmful if inhaled

**H351** – Suspected of causing cancer

**H372** – Causes damage to organs through prolonged or repeated exposure

**H411** – Toxic to aquatic life with long lasting effects

**Acute Tox. 4** – Acute toxicity cat. 4

**Carc. 2** – Carcinogenicity cat. 2

**Skin Sens. 1** – skin sensitization cat. 1

**STOT RE 1** – Specific target organ toxicity — repeated exposure cat. 1

**Aquatic Chronic 2** – Hazardous to the aquatic environment cat. 2

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

Method of classification: not classified

**Training:**

This product can be used by workers who have been thoroughly trained in the method of use of this product, they have been informed about the hazardous properties of the product and of the conditions of safe use of this product. Before working with product carry out OSH training for stuff related to the presence of chemical factor in the work environment. Carry out, register and inform employees about the evaluation of professional risk of working in presence of chemical factors.

**RESOURCES**

Annex to Regulation (EU) 2015/830.

Current legislation (Section 15).

Information Agency for Chemical Substances.

The information contained herein should be considered only as an aid for the safe use of **MOST E 71 T-1**. Since the conditions of storage, transport and use are beyond our control, can not constitute a guarantee in the legal sense. In any case, you must observe the laws and any third party rights. The document does not estimate the risks in the workplace. Product should not be used for purposes other than those specified in Section 1 without first consulting with **RYWAL – RHC Sp. z o.o.**