1.- IDENTIFICATION OF PRODUCT AND COMPANY

1.1 Product identification: **E71 T11**

1.2 Identified pertinent uses of the substance or mixture and uses that are advised against: Arc welding

Classification(s):
E71T-11 EN 17632-A T 42 Z Y N O 1

1.3 Supplier's details:

CHAVES BILBAO S.L.,
C/Bizkargi, 6 Pol. Ind. Sarrikola
E-48195 LARRABETZU Bizkaia
Tel. +34 94 412 34 56
www.chavesbao.com

1.4 Emergency telephone number:

Toxicology Information Service
Telephone: Spain: **+34 91 562 04 20** (24/7/365)
Other: National support - Poison Centres (europa.eu)

2.- IDENTIFICATION OF HAZARDS

Considerations. Prolonged exposure through inhalation of welding fumes can be harmful to people's health. Gloves should be used during handling to avoid cuts or scratches.

2.1 Product classification: N.A.

2.2 Label items: N.A.

2.3 Other hazards:

Contact with the skin does not normally carry any risk but there is a possibility of allergic reaction.
People who wear pacemakers should not approach areas in which welding or cutting operations take place without prior authorisation from both their doctor and the pacemaker manufacturer.
The greatest risks involved in using this product in welding procedures are as follows: heat, radiation, fumes and electric shock.

Fumes:
Over-exposure to welding fumes can cause dizziness, fever from the metal fumes, nausea and dryness and irritation of the nose, throat and eyes. Continued over-exposure to these fumes can affect pulmonary function. Prolonged inhalation of chromium compounds, above the limits of risk-free exposure, can cause cancer. Over-exposure to manganese and manganese compounds above the limits of risk-free exposure can cause irreversible damage to the central nervous system, including the brain, with symptoms that may include difficulty speaking, lethargy, trembling, muscle weakness, psychological alterations and spastic gait.

Heat:
Projections, molten metal and the arc can cause burns and start fires.

Radiation:
The arc can cause serious damage to the eyes and skin.

Shock:
Electric shocks can kill.

3.- COMPOSITION

3.2 Mixtures:

SUBSTANCE	CAS No.	%
Iron (Fe)	7439-89-6	90-98
Manganese (Mn)	7439-96-5	0.5-1.5
Aluminium (Al)	7429-90-5	0.5-2.00
Magnesium (Mg)	7439-95-4	< 1.00
Calcium carbonate (CaCO3)	1317-65-3	< 1.00
Ca, Sr and Ba Fluoride	15542-23-5 7783-48-4 7787-32-8	2.0-6.0
Silicon (Si)	7440-21-3	0.2-0.8

4.- FIRST AID

4.1 Description of first aid

Inhalation: If breathing stops, perform artificial respiration and call for medical help immediately. In case of difficulty breathing, provide fresh air and call a doctor.

Contact with the eyes/skin: For burns caused by the arc, see a doctor. To remove dust or vapour, wash with water for at least 15 minutes. If the irritation persists, request medical assistance. For burns on the skin caused by the arc, wash immediately with cold water. Get medical assistance for burns or irritation that doesn't improve. To remove dust or particles, wash with neutral soap and water.

Electric shock: Disconnect and turn off. Use a non-conductive material to move the victim so they are no longer in contact with conductive parts or wires. If they are not breathing, start artificial breathing, preferably mouth to mouth. If they don't have a pulse, perform CPR. Call a doctor immediately.

4.2 Main symptoms and acute and delayed effects:

N.A.

4.3 Indication of all medical assistance and special treatments that must be provided immediately.

General: Ventilate the place and seek medical assistance.

5.- FIRE FIGHTING MEASURES

5.1 Extinguishing means: Powder, foam, carbon dioxide, water.

5.2 Specific hazards arising from the substance or mixture: The product is not flammable, but welding slag and sparks can cause fires.

5.3 Recommendations for fire fighting personnel: Maintain your distance from areas where there is fire without the appropriate protective equipment, including protection for the airways.

6.- MEASURES IN THE EVENT OF ACCIDENTAL SPILLAGE

6.1 Personal precautions, personal protective equipment and emergency procedures: Cleaning personnel must be protected with appropriate equipment.

6.2 Precautions in relation to the environment: See section 13.

6.3 Methods and means of contention and cleaning: On the ground, sweep or collect up and place in appropriate containers.

6.4 Reference to other sections: See section 13.

7.- HANDLING AND STORAGE

7.1 Precautions for safe handling: Handle with care to avoid pricks and cuts. Use gloves when handling welding consumables. Protect the feet. Avoid exposure to dust. Do not ingest. Some people may develop an allergic reaction to certain materials. Keep all warning and identifying labels.

7.2 Safe storage conditions, including possible incompatibilities: Store in a sheltered, dry place to avoid any contact with humidity. Keep packaging closed when not in use. Avoid storing dense, solid products in inappropriate positions.

7.3 Specific end uses: Arc welding

8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters: See section 8.2.

8.2 Exposure controls: In case of insufficient ventilation, use appropriate personal respiration equipment. Do not breathe in fumes, gases or vapours.
Protect hands with gloves for welding.
Use appropriate skin protection for the work conditions.
Use a protective mask equipped with safety goggles with a filter. The use of contact lenses is not allowed.

9.- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Physical condition: solid.
Colour: grey.
Melting point: ca. 1500
Density: 7kg/dm^3.

10.- STABILITY AND REACTIVITY

10.1 Reactivity: N.A.

10.2 Chemical stability: Stable under normal conditions (<300ºC)

10.3 Possibility of dangerous reactions: N.A.

10.4 Conditions that must be avoided: This product is only suitable for manual welding procedures.

10.5 Incompatible materials: Contact with chemical substances such as acids or bases can cause the production of gas.

10.6 Hazardous decomposition products: Formation of hazardous vapours during use: welding fumes are classified as carcinogenic by the International Agency for Research on Cancer (IARC):
Suspected Group 2B cancer agent. Some expected byproducts of its decomposition include carbon oxides, nitrogen oxides and ozone.

Depending on the conditions of the process, the products of decomposition may be hazardous. These hazardous products may include those resulting from the reaction or oxidation of the components listed in section 3 or included in the base material. Some of these may be:

Substance	CAS
Manganese and compounds (Mn)	7439-96-5
Silicon oxides (fumes)	6912-64-1
Iron oxides (dust and fumes)	1309-37-1
Unclassified particles	-
Fluorides	-
Metallic aluminium and insoluble compounds	7429-90-5
Magnesium oxides and fumes	1309-48-4
Soluble barium compounds and barium	7440-39-3

The quantity of fumes generated changes with the welding parameters and the wire diameter. Check the applicable national exposure limits for the fume compounds and national exposure limits for fumes.

In case of working with coatings such as: lubricants, solvents, paint, metallic compounds, grease, etc. The thermal or photochemical decomposition of these elements accumulates with the dust and fumes emitted by the fusion of the welding product. The solution to be adopted must in any case be preceded by an on-site study. See the document "Welding Health and Safety", published by the International Institute for Welding (IIW).

11.- TOXICOLOGICAL INFORMATION

11.1 Information on the toxicological effects:

This material is not toxic, but its emissions can cause an allergic reaction or sensitisation and thus aggravate an existing systemic illness.

Acute toxicity	Irritation of the airways and other mucous membranes. Overexposure to welding fumes: nausea, fever, dizziness, irritation of the eyes.
Chronic toxicity	Overexposure to welding fumes can cause: pulmonary/bronchial disease an/or breathing difficulties.

12.- ECOLOGICAL INFORMATION

Avoid its release into the environment. Do not pour into the runoff water collection system.

13.- CONSIDERATIONS IN RELATION TO DISPOSAL

13.1 Methods for the treatment of waste:

Users should refer to the national and local regulations. Waste management must be carried out ensuring the correct labelling of the containers for subsequent recycling or treatment under controlled conditions and by an authorised management company.

Industrial waste codes:

12 01 02 Ferrous dust and particles
12 01 13 Welding waste

14.- INFORMATION IN RELATION TO TRANSPORT

No international regulations or restrictions apply.

15.- REGULATORY INFORMATION

15.1 Specific regulations and legislation for the product in the area of health, safety and the environment:

Carefully read and understand the manufacturer's instructions, the safety rules of your company and the health and safety instructions on the label. Adhere to any local legislation. Take precautions for yourself and others during welding.
PRECAUTION: welding gases and fumes can be dangerous to people's health and can damage the lungs and other organs. Use appropriate ventilation.
ELECTRIC SHOCKS can kill. ELECTRIC ARC and SPARKS can damage the eyes and cause burns.
Use protection for your hands, head, eyes and body.

Directive 2002/95/EC (ROHS): Can be used in the manufacturing of electrical and electronic elements.

15.2 Evaluation of chemical safety:

No.

16.- OTHER INFORMATION

The information on this Material Safety Data Sheet is based on the technical data held by Chaves Bilbao S.L. and which it believes to be reliable. Given that the conditions of use are out of our control, we take no responsibility in relation to the use made of this information, nor do we guarantee this in any way neither implicitly nor explicitly. For more information, please contact Chaves Bilbao S.L.