1.- IDENTIFICATION OF PRODUCT AND COMPANY

1.1 Product identification: **AlMg5%**

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

Classification(s):
AWS. A5.10: ER 5356 EN ISO 18273: S Al 5356

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

General Emergency Considerations: This product is not normally considered hazardous when transported, however, prolonged exposure through inhalation of welding fumes could be detrimental 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. Overexposure 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.	%
Si	7440-21-3	0.25
Fe	7439-89-6	0.40
Cu	7440-50-8	0.10
Mn	7439-96-5	0.05-0.2
Mg	7439-95-4	4.5-5.5
Cr	7440-47-3	0.05-0.2
Zn	7440-66-6	0.10
Ti	13463-67-7 (Rutile)	0.06-0.2
Others	-	0.05
Al	7429-90-5	Rest

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: Use appropriate extinguishing means.

5.2 Specific hazards arising from the substance or mixture: N.A.

5.3 Recommendations for fire fighting personnel: N.A.

6.- MEASURES IN THE EVENT OF ACCIDENTAL SPILLAGE

6.1 Personal precautions, personal protective equipment and emergency procedures: See section 8.

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

6.3 Methods and means of contention and cleaning: Collect mechanically

6.4 Reference to other sections: See section 8/13.

7.- HANDLING AND STORAGE

7.1 Precautions for safe handling: Handle with care to avoid pricks and cuts. Use gloves when handling welding consumables. Keep all warning and identifying labels.

7.2 Safe storage conditions, including possible incompatibilities: N.A.

7.3 Specific end uses: Arc welding

8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Although the material is inert under normal conditions, special attention must be paid to the decomposition of its components, particularly in the form of welding gases, and the national or regional exposure limits must be checked.
Workers must be aware that the composition and quantity of fumes and gases they may be exposed to are affecter by: linings that may be present on the metal being welded (such as paint, plating or galvanising), the number of welders working and the volume of the work area, the quality and quantity of ventilation, the position of the welder's head with respect to the column of fumes and the presence of contaminants in the atmosphere (such as cleaning and degreasing chlorinated hydrocarbon vapours). When the electrode is consumed, the fumes and decomposition gas products generated differ in percentage and form from the elements listed in Section 3. The composition of these fumes and gases is what is important rather than the composition of the electrode itself. The products of decomposition include those resulting from volatilisation, reaction or oxidation of the elements shown in Section 3, in addition to those coming from the metal base, lining and the other factors mentioned previously.

Possible expected components of the fumes from this product include: complex aluminium, iron, manganese, silicon, titanium, chromium, magnesium, zinc, beryllium and copper oxides. Other complex oxides may be present during melting.

8.2 Exposure controls:

Ensure abundant general and specific ventilation in the area of the arc to keep fumes and gases below the threshold limit value within the worker's breathing area and the work area in general. Welders should be advised to keep their heads away from the fumes.
Use a fume mask or equipment with an air supply when welding in a reduced space or in the general work area when the local extraction and/or ventilation is not keeping exposure below the threshold limit value. Use a helmet or mask with a filter. Protect other workers by providing screens and flash safety glasses. Use certified protection for the head, hands and body which helps to prevent injuries as a result of radiation, sparks or electric shock. This will include the use of welding gloves and a protective shield for the face and may include arm protectors, apron, hats and shoulder protection, as well as clothing. Welders must be trained not to allow electrically dangerous parts to come into contact with their skin or clothing or wet gloves. Welders must be insulated against the work and the ground.

9.- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

N.A.

10.- STABILITY AND REACTIVITY

10.1 Reactivity: N.A.

10.2 Chemical stability: Stable product under normal conditions.

10.3 Possibility of dangerous reactions: N.A.

10.4 Conditions that must be avoided: N.A.

10.5 Incompatible materials: N.A.

10.6 Hazardous decomposition products: Welding gases.

11.- TOXICOLOGICAL INFORMATION

11.1 Information on the toxicological effects:

Acute toxicity	Short-term (acute) overexposure to welding fumes can cause discomfort such as dizziness, nausea or dryness or irritation of the nose, throat or eyes. Chromium(VI), a compound present in the fumes, can cause severe irritation of the bronchial tubes and lungs. Ingestion of chromium(VI) salts can cause injury or death. Chromium(VI) compounds can burn the eyes. Chromium compounds can cause allergic reactions in some people. Beryllium fumes or beryllium in the form of dust is highly toxic. The inhalation of excessive levels of beryllium compounds can cause pneumonitis (inflammation of the lung tissue).
Chronic toxicity	Overexposure to welding fumes can lead to siderosis (iron deposits in the lungs) which is believed to affect lung function. Constant inhalation of chromium(VI) compounds can cause ulceration and perforation of the nasal septum, in addition to damage to the liver and kidneys. Workers exposed to chromium(VI) and beryllium have a higher incidence of lung and nasal cancer. Long-term exposure to beryllium through inhalation can cause berylliosis (progressive pulmonary disease) and systemic beryllium disease. Chromium and beryllium compounds are on the IARC (International Agency for Research on Cancer) list as those that carry the greatest risk of cancer for humans.

12.- ECOLOGICAL INFORMATION

N.A.

13.- CONSIDERATIONS IN RELATION TO DISPOSAL

13.1 Methods for the treatment of waste:

Users should refer to the national and local regulations. The management of waste and containers or packaging 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.

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.

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.