meccanocar L'AFFIDABILITÀ CHE TI SERVE

STRUMENTI E FORNITURE PER I PROFESSIONISTI DELL'ARTIGIANATO, DELL'INDUSTRIA E DELL'AUTOMOTIVE.

SAFETY DATA SHEET

ELECTRODES INOX 308

Cod. 402 00 00990-117-2X300 mm.
Cod. 402 00 01000-125-2.5X300 mm.

1. IDENTIFICATION OF THE PREPARATION AND THE COMPANY.

PRODUCT NAME: **ELECTRODES INOX 308**

INTENDED USE: **Covered electrodes for electric-arc welding of stainless steel AISI 308.**

NAME OF THE COMPANY: **MECCANOCAR ITALIA S.R.L.**
Capannoli (PI) 56033 Via S. Francesco 22
-TEL. 0587/609433 (10 lines R. A.)

2. COMPOSITION/INFORMATION ON INGREDIENTS

The following components are defined according to paragraph 2 (a-c) of the Communitarian Directive 93/112/EC and Annexed (TLV threshold limits according to ACGIH, risks classification as from OJEC N. L314).

Analysis of the filament/core: Stainless Steel Cr/Ni.

Covering: Components	**Weight % maximum**	**CAS #**	**TLV mg/m3**	**Class risk**
Iron	10	7439-89-6	5	NA
Manganese	5	7439-96-5	0.2	NA
Nickel	2	7440-02-0	1	NA
Quartz	25	14808-60-7	0.1	NA
Chromium	15	7449-47-3	0.5	NA
Aluminium oxide	10	1344-28-1	10	NA
Carbonate Calcium	15	1317-65-3	10	NA
Fluorides	5	7789-75-5	2.5	NA
Titanium oxide	40	13463-67-7	10	NA

3. DANGER IDENTIFICATION

Avoid contact with the eyes or inhalation of the powders developed by the product.
For the skin the contact usually presents no risks, it is anyway better to avoid it to prevent allergic reactions.
Occupational exposure limits: those reported in paragraph 2.
During welding risks are due to the heat; sprays, melted metal and the arc can cause burns or set fire.
Radiations: the arc can seriously damage eyes and skin.
Shock: the shock from electric current can kill.
Fumes: long exposure to welding fumes can lead to symptoms like dizziness, nausea, nose , throat and eyes irritations.
Chronic exposure can limit the pulmonary function.

4. FIRST-AID MEASURES

Respiration: if difficult, take to fresh air and call for a doctor.
Eyes: call for the doctor for burnings due to arc shocks.
Skin: for burnings due to arc radiations call for a doctor.

5. FIRE-FIGHTING MEASURES

No specific measure for the product.

6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** see section 8.
- **Environmental precautions:** see section 13.
- **Cleaning methods:** see section 13.

7. HANDLING AND STORAGE

Handling: avoid exposure to welding fumes, radiations, sprays, electric shock, high-temperature materials and powders. Do not swallow.
Handle with care in order to avoid cuts or scratches.

Storage: keep separated from chemical substances that can trigger chemical reactions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures: assure sufficient ventilation and air eduction in the arc area in order to keep the breathing area for the user free from welding fumes and gases. Keep the working place and the protective equipment clean and dry.
Avoid contacts with uncovered electric parts and isolate every conductive part.

Personal protective equipment: use the respirator when you weld in close rooms.

Always wear protections for hands, head, eyes and body, like: gloves, overalls, leggings and

welding armbands, helmet/mask and safety shoes.

Always keep the equipment clean and dry.

Refer to DPR 303/1956 and to DPR 547/1955.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: solid, not volatile.
Odour: without special odour.
Colour: variable.
Size: steel sticks of a diameter from 2.00 to 2.5 mm. and length of 300 mm. Covered by extrusion.

10. STABILITY AND REACTIVITY

This product is to be used only to weld.

Stability: it is stable under the normal conditions.
Reactivity: contact with chemical substances like the acids could develop gases.
Dangerous products arising from decomposition include those developed by volatilisation, reaction or oxidation of the components listed in section 2 and of those in the base metal.
The probable possible components of the fumes released by the welding of this product include some metals oxide like iron, manganese and chromium and other gas products like oxides of C, N and Ozone.
N.B. For the TLV pertinent to the fumes components with limit values to be respected, the reference is to the TLV in section 2 and to the following:

Component	**CAS**	**TLV (mg/m3)**
ozone	10028-15-6	0.2 TLV/C
fluorides	16984-48-8	2.5 TLV/TWA

11. TOXICOLOGICAL INFORMATION

Inhaling the welding fumes and gases can be dangerous for health.
Acute toxicity: overexposition to the welding fumes lads to symptoms like nauseas, dizziness, dryness and irritation of nose, throat and eyes.
Chronic toxicity: a continuous overexposition to welding fumes can limit the pulmonary functionality and overexposition to Ni and Cr6+ could have cancerogenic effects and to Mn cause troubles to the nervous system.

12. ECOLOGICAL INFORMATION

The material could degrade, in time and by exposures to atmospheric agents, in components arising from the consumables and the materials in use in the welding processes. Avoid putting it in conditions that could lead to its accumulation in the ground.

13. **DISPOSAL**

Discharge every product, residual product, container or packaging in an acceptable way for the environment, anyway completely complying with the national and local laws.
If and where feasible, use recycling procedures. Welding wastes could degrade and accumulate in the ground.

14. **TRANSPORT**

No rule or international restriction applicable.

15. **REGULATION INFORMATION**

Read and know the producer's instructions concerning health and safety, put on packaging. Follow national and local regulations.
When welding, take the suitable precautions for yourself and the other people.
Fumes and gases can be harmful for your health.
The electric arc can damage the eyes and the skin.
The electric shock can kill.
Keep your head as much as possible out of the fumes.
Use sufficient ventilation or see to adequate eduction of fumes from the area where the welder breathes. Use protections for eyes, head and body.
Do not touch uncovered electric parts.

N.B. The maximum exposure to the fumes of this product is for a concentration of 0.5 mg/m3 based on the present heavy metal contents.

16. **FURTHER INFORMATION**

References:

AMERICAN NATIONAL STANDARD Z49.12

"Safety in welding, cutting" published by AWS AMERICAN WELDING SOCIETY 550 N.W.

Lejeune Road P.O. Box 351040 MIAMI, FL 33135 U.S.A.

ACGIH: Threshold Limit Values and Biological Exposure indices 6500 Glenway Ave., Cincinnati Ohio 45211 U.S.A.
Ministerial Decree 28-01-1992.
Law N. 256 of 29-05-1974.
Decree of the President of the Republic 547/1955.
Decree of the President of the Republic 303/1956.
Law by Decree Nr. 626 of 19-09-1994.
Information Sheets on Fumes by the I.I.S.

The information reported here are those by qualified experts. The information in the document are updated to the date above reported. Since the use of this information and the use conditions of the product are not under the control of our company, the user is obliged to determine the conditions for the use of the product under a safety system.