



## SAFETY DATA SHEET

**Product name:** EI 309L

**Issue Date:** 24/10/2023

**Print Date:** 24/10/2023

MAGMAWELD encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

### 1. IDENTIFICATION

**Product name:** EI 309L

#### **Recommended use of the chemical and restrictions on use**

**Identified uses:** Arc Welding – STAINLESS STEEL STICK ELECTRODES– EI 309L

#### **COMPANY IDENTIFICATION**

OERLIKON KAYNAK ELEKTRODLARI VE SANAYİ A.Ş.  
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www.magmaweld.com

**Customer Information Number:**

(+90) 236 226 26 00  
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#### **EMERGENCY TELEPHONE NUMBER**

**24-Hour Emergency Contact:** 00 90 236 226 26 00

### 2. HAZARDS IDENTIFICATION

#### **2.1 Classification of the substance or mixture**

Classification according to EC regulation 1272/2008 (CLP)

These substances are classified as not hazardous.

These products contain titanium dioxide which is possibly carcinogenic .

These products contain quartz ,but not an inhalable form.Quartz can cause silicosis and may cause cancer.

These products contain nickel which is classified as toxic by prolonged inhalation,a skin sensitizer and a suspect carcinogen.Nickel powder is harmful for the environment

#### **2.2 Label elements**

**Labelling (CLP)**

**Hazard statements** : not applicable

**Precautionary statements** : not applicable

**2.3 Other Hazards**

These products are normally not considered hazardous as shipped. Gloves should be worn when handling to prevent cuts or abrasions or possible allergic reactions.

Persons with a pacemaker should not go near welding or cutting operations until they have consulted their doctor and obtained information from the manufacturer of the device.

Electric shock can kill.

Arc ray can severely damage eyes or skin.

Spatter and melting metal can cause burn injuries and start fires.

Formation of dangerous fumes during use. Inhalation of welding fumes may cause respiratory irritation. Cough. Excessive or prolonged inhalation of fumes may cause metal fume fever.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

This product is a mixture.

Ingredients	CAS NO	EINECS	content	Classification Hazardous classification	Classification H phrases	Classification R phrases
Iron	7439-89-6	231-096-4	60-75	No	No	No
Manganese	7439-96-5	231-105-1	1,00-4,00	No	No	No
Aluminum	7429-90-5	231-072-3	<1	Water-react.2 Flam.sol.1	H261 H228	F R15-R11
Nickel	7440-02-0	231-111-4	9-12	Carc.1B SKIN SENSE 1 STOT RE	H317 H350 H372	T CARC. CAT.3 R40-48/23- R43-R52-53
Chromium	7440-47-3	231-157-5	23-27	No	No	No
Molybdenum	7439-98-7	231-107-2	<3	No	No	No
Fluoride	7789-75-5	232-188-7	1-3	No	No	No
Cellulose	9004-34-6	232-674-9	<1	No	No	No
Iron oxides	1317-60-8	215-168-2	<1	No	No	No
Silicate binder (potassium)	1312-76-1	215-199-1	2-4	No	No	No
Silicate binder (sodium)	1344-09-8	215-687-4	2-4	No	No	No
Calcium Carbonate	1317-65-3	215-279-6	3-6	No	No	No
Silicon Dioxide	14808-60-7	238-878-4	3-6	CARC 1A STOT RE 1	H372 H350	Xn R48/20
Mineral Silicate	12001-26-2	215-479-3	5-8	No	No	No
Titanium Oxide	13463-67-7	236-675-5	10-15	Carc 2	H351	No

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## 4. FIRST AID MEASURES

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### Description of first aid measures

#### 4.1 Description of first aid measures

**Inhalation** : If breathing is difficult, provide fresh air and call physician. If breathing has stopped, perform artificial respiration and obtain medical assistance immediately.

**Eye contact** : To remove dusts or fumes flush with water for fifteen minutes. If irritation persists, obtain medical assistance. For radiation burns due to arc flash, see physician.

**Skin contact** : For skin burns from arc radiation, promptly flush with cold water. Get medical attention for burns or irritations that persist. To remove dust or particles wash with mild soap and water.

**Electric shock**: Disconnect and turn off the power. Use a nonconductive material to pull victim away from contact with live parts or wires. If not breathing, begin artificial respiration, preferably mouth to mouth. If no detectable pulse, begin Cardio Pulmonary Resuscitation. Immediately call a physician.

**Ingestion**: Rinse mouth. Do not induce vomiting. Obtain emergency medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

Can cause nausea and vomiting

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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## 5. FIREFIGHTING MEASURES

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### 5.1 Extinguishing media

The products are not flammable, but welding hot slag or sparks may cause fire. Use extinguishing media recommended for the burning materials and fire situation. Do not enter fire area without proper protective equipment, including respiratory protection.

### 5.2 Special hazards arising from the substance or mixture

No special hazards

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus. Wear suitable protective clothing.

### 5.4 Hazchem code

None allocated.

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## 6. ACCIDENTAL RELEASE MEASURES

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### 6.1 Personal precautions, protective equipment and emergency procedures:

Equip clean-up crew with proper protection.

### 6.2 Environmental precautions:

On land, sweep or shovel into suitable containers.

### 6.3 Methods and material for containment and cleaning up

No need

### 6.4 Reference to other sections

Refer additionally to section 8 and 13

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## 7. HANDLING AND STORAGE

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**7.1 Precautions for safe handling**

Handle with care to avoid stings and cuts. Wear gloves when handling welding consumables. Avoid exposure to dust. Do not ingest. Some individuals can develop an allergic reaction to certain materials. Retain all warning and identity labels.

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

Keep separate from chemical substances like acids and strong bases, which could cause chemical reactions.

**7.3 Special end use(s)**

No information available

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control Parameters**

Exposure standards

Substance	cas no	ACGIH TLV (mg/m3)	OSHA PEL (mg/m3)
Titanium Oxide	134-67-7	10	15*
Calcium Carbonate	1317-65-3	withdrawn	15*,5**
Mineral Silicate	12001-26-2	25**	10 mg/m <sup>3</sup> /(%SiO <sub>2</sub> +2)
Manganese	7439-96-5	0,2	5
Nickel	7440-02-0	1	1,5***
Chromium	7440-47-3	1	0,5
Molybdenum	7439-98-7	10	5
Fluoride	7789-75-5	2,5	2,5
Iron(as iron oxide)	7439-89-6	5**	10(fume)
Aluminum	7429-90-5	1**	15*,5**
Silicon Dioxide	14808-60-7	0,025**	10 mg/m <sup>3</sup> /(%SiO <sub>2</sub> +2)
Cellulose	9004-34-6	10	15*,5**

\*Total dust \*\*Respirable fraction \*\*\*Inhalable fraction

**8.2 Exposure controls**

Ensure sufficient ventilation, local exhaust, or both, to keep welding fumes and gases from breathing zone and general area.

Keep working place and protective clothing clean and dry.

Train welders to avoid contact with live electrical parts and insulate conductive parts.

Check condition of protective clothing and equipment on a regular basis.

**Personal protective equipment**

Avoid exposure to welding fumes, radiation, spatter, electric shock, heated materials and dust.

In case of insufficient ventilation, wear suitable respiratory equipment. Do not breathe gas, fumes, vapour.

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For hand protection, wear welding gloves.

For eye protection ,use a protection mask equipped with suitable filter glasses. Interdiction to wear contact lenses.

For body protection,use suitable clothing, helmet, boots.

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

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### **9.1 Information on basic physical and chemical properties**

Appearance :Solid,non-volatile with varying color

Odour: Odourless

Density(kg/lit) : 7,8

pH value : Not applicable

Melting Point (0C) : ca 1500

Flashing point :not applicable

Auto Ignition Temperature : Not applicable

Explosion Limits : . Not applicable

Solubility in water :Insoluble

Viscosity : Not applicable

### **9.2 Other information**

Not relevant

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## **10. STABILITY AND REACTIVITY**

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### **10.1 Reactivity**

These products are stable under normal conditions..

### **10.2 Chemical stability**

Contact with chemical substances like acids or strong bases could cause generation of gas.

### **10.3 Possibility of hazardous reactions**

Formation of dangerous fumes during use. Welding fumes are classified carcinogen by the IARC (International Agency for Research on Cancer):Group 2B Cancer suspected agent.

### **10.4 Conditions to avoid**

Reasonably expected gaseous products would include carbon oxides, nitrogen oxides and ozone. Air contaminants around the welding area can be affected by the welding process and influence the composition and quantity of fumes and gases produced.

The amount of fumes generated from these products varies with welding parameters and dimensions. Fumes from these products may contain compounds of the following chemical elements: Fe, O, Mn, Zr, Si, Al, Cu, C, and Ti.

### **10.5 Incompatible materials**

Incompatible with acids and bases

### **10.6 Hazardous decomposition products**

Fumes from these products may contain compounds of the following chemical elements: Fe, O, Mn, Zr, Si, Al, Cu, C, and Ti.

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## 11. TOXICOLOGICAL INFORMATION

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### 11.1 Information on toxicological effects

#### Acute toxicity

No known toxicological effects from this product

#### Skin

Not classified as irritating to the skin . Contact may result in mechanical irritation.

#### Eye

Contact may result in mechanical irritation.

#### Sensitisation

Inhalation of welding fumes and gases can be dangerous to your health .Classification of welding fumes is difficult because of varying base materials,coatings,air contamination and process.IARC (International Agency for Research on Cancer)has classified welding fumes as possibly carcinogenic to humans (Group 2B)

Acute Toxicity:Overexposure to welding fumes may result in symptoms like metal fume fever ,dizziness,nausea,dryness or irritationof nose,throat or eyes.

Chronic Toxicity:Overexposure to welding fumes may affect pulmonary function.Overexposure to manganese and manganese compounds above safe exposure limits can cause irreversible damage to the central nervous system ,including the brain,symptoms of which may include slurred speech ,lethargy,tremor,muscular weakness,psychological disturbances and spastic gait.

#### Mutagenicity

No evidence of mutagenic effects

#### Carcinogenicity

Inhalation of welding fumes and gases can be dangerous to your health .Classification of welding fumes is difficult because of varying base materials,coatings,air contamination and process.IARC (International Agency for Research on Cancer)has classified welding fumes as possibly carcinogenic to humans (Group 2B)

#### Reproductivity

No evidence of reproductive effects

#### STOT-single exposure

Not relevant

#### STOT-repeated exposure

Not relevant

#### Aspiration

Overexposure to welding fumes may affect pulmonary function.Overexposure to manganese and manganese compounds above safe exposure limits can cause irreversible damage to the central nervous system ,including the brain,symptoms of which may include slurred speech ,lethargy,tremor,muscular weakness,psychological disturbances and spastic gait.

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## 12. ECOLOGICAL INFORMATION

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### 12.1 Toxicity

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No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

No data available

**12.6 Other adverse effects**

None

Avoid release to the environment .Do not discharge in sewer.

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**13. DISPOSAL CONSIDERATIONS**

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**13.1 Waste treatment methods**

Welding process disposals can accumulate in soil and underground water paths.

Slugs can contain Fe,Mn,Si,Ti,Al,Mo,Zr and Cu oxides and compounds.

Dispose in a safe manner in accordance with local/national regulations.Use recycling procedures if available.

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**14. TRANSPORT INFORMATION**

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**14.1 UN number**

Not applicable

**14.2 UN proper shipping name**

Not restricted

**14.3 Transport hazard class(es)**

Not applicable

**14.4 Packing group**

Not applicable

**14.5 Enviromental hazards**

No

**14.6 Special precautions for user**

No dangerous good in sense of these transport regulations

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No available data

No international regulations or restrictions are applicable.

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**15. REGULATORY INFORMATION**

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**15.1 Safety , health and environmental regulations/legislation specific fort he substance or mixture**

Classification of substance and mixtures , labeling and packaging regulation

**15.2 Chemical safety assessment**

No data available

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**16. OTHER INFORMATION**

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**Product Literature**

Additional information on this and other products may be obtained by visiting our web page.

**Revision**

Issue Date: 24/10/2023 / Version: 1.0

**Legend**

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
TWA	8-hour, time-weighted average

**Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

MAGMAWELD urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer- specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.