

Welding consumables:
Coated stick electrodes, low alloy

Date : 25.04.2002

1. Product and company designation OERLIKON KAYNAK ELEKTRODLARI
1.1 Information on the product
Trade names:

ESR-30		ESH-160R	E7024	EM-255	
ESC-70	E7010-A1	ESH-180B	E7028	ESR-13	E6013
ESC-70G	E7010-G	ESH-160B	E7024	ESR-11	E6013
ESC-80G	E8010-G	ESH-180R	E7024	ESB-44	E7016
ESC-60	E6010	ESR-13M	E6013	ESB-50	E7018
EH-513		EM-202	E7018-A1	ESN-52	E7018-1
EM-212	E8018-B2	EM-201	E8018-G	EM-155	E8018-W
EM-211	E8013-G	EM-235	E502-15	EM-156	E8018-C2
EM-222I	E9018-B3	EM-253	E11018-G	EM-160	E8018-G
ESB-42	E7016			EM-165	E9018-G
ESB-48	E7018			EM-170	E9018-G
				ESB-40	E7016

1.2 Information on producer/supplier

Oerlikon Kaynak Elektrodları ve San. A.Ş.
 Organize Sanayi Bölgesi 2.Kısım
 Manisa / TURKEY
 Telephone: 0 236 226 26 00
 Fax: 0 236 233 99 77
 Emergency telephone: 0 236 226 26 34

2. Composition/Information on ingredients

Description:	<i>The products contain less than 1 % by weight of nickel and less than 5 % by weight of chromium.</i>
Dangerous ingredients:	
CAS-Nr.:	<i>The products do not contain any dangerous substances.</i>
Designation:	<i>not applicable</i>
Content [% by weight]:	<i>not applicable</i>
Key letter of the danger symbol:	<i>not applicable</i>
R-Code:	<i>not applicable</i>

3. Eventual dangers
Designation of dangers:

Welding and grinding cause smoke and dust. Irritative substances such as fluorides and manganese oxides as well as fine dust may be caused (mostly iron oxide).

4. First Aid measures
General information

After inhalation:	<i>Breathe deeply in fresh air, consult physician in case of great quantities of smoke.</i>
After skin contact:	<i>Wash skin concerned thoroughly with soap.</i>
After eye contact:	<i>Rinse for several minutes under running water with palpebral fissure well opened and eventually consult physician.</i>
After swallowing:	<i>not applicable</i>

5. Measures for fire fighting

	<i>Not applicable, as the products are neither inflammable nor explosive.</i>
Suitable fire-extinguishing materials	<i>not applicable, in case of external fire: all</i>

6. Measures in case of unintended release

not applicable

7. Handling and storage
7.1 Handling

Information for safe handling:	<i>The UVV (German regulations for avoiding accidents) (VBG 15) have to be respected.</i>
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7.2 Storage

Requirement for warehouses/containers:	<i>No special requirement for safety reasons.</i>
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8. Limits of exposure and personal safety equipment
8.1 Additional information for the design of technical installations

The measures according to 7.1 have to be respected..

8.2 Ingredients with limits to be examined depending on the working place

Designation of substance	CAS-Nr.	Limit
Fluoride	7664-39-3	2.5 mg/m ³ (MAK) in total dust
Manganese	7439-96-5	0.5 mg/m ³ (MAK) in total dust
Fine dust	-	1.5 mg/m ³ (MAK)
Total dust	-	4 mg/m ³ (MAK)

8.3 Personal safety equipment

Breathing, hand, eye, body protection: *see UVV (VBG 15), § 27*
 Protection and hygiene measures: *Do not eat, drink or smoke in the working room.*

9. Physical and chemical characteristics

Exterior aspect *coated stick electrode*
 Safety-related data: *not applicable*

10. Stability and reactivity

Avoid contact with acids and bases. Product stable up to 800 °C.

11. Information on toxicology

see item 3.

12. Information on ecology

Using exhaust systems the limits of the technical instruction (TA) „Air“ are applicable. For further information see item 15.

13. Information on disposal (waste)

Product:
 Recommendation: *Dusts and particles depositing in exhaust systems: Disposal according to legal regulations. Customary metal scrapping of the products is possible.*
 Key number for waste disposal. *100805 solid waste from gas cleaning
 120 103 Chips and parts containing non-ferrous metals
 150229D Exhaust and filter material with noxious contaminations*
 Uncleaned packaging:
 Cardboard boxes: *Disposal via recycling as not contaminated*
 Plastics: *Disposal via recycling as not contaminated*

14. Information on transport

Comments: *The product is not a hazardous product as defined by the transport instructions*

15. Instructions
15.1 Marking

Key letter: *none*
 not applicable
 Danger designation: *not applicable*
 R-Codes: *not applicable*
 S-Codes: *not applicable*

15.2 National instructions

Information on employment restrictions: *not applicable*
 Incident V: *not applicable*
 Classification according to VbF: *not applicable*
 Technical instruction "Air": *5 mg/m³ with a mass flux of > 25 g/h*
 Water hazard class: *Hazards not to be expected*
 Other instructions: *not known*

16. Further information

Documentation:
 - *Unfallverhütungsvorschrift (instructions for avoiding accidents) (VBG 15): Schweißen, Schneiden und verwandte Verfahren (Welding, Cutting and related processes)*
 - *DVS-Merkblatt (German Association of Welding Technique instruction) 1201: Absaugung an Schweißarbeitsplätzen (Exhaust systems at welding working places)*
 - *DVS-Faltblätter zum Arbeitsschutz beim Schweißen (DVS brochures for working safety in welding)*
 - *DVS-Fachbuch (book): Unterweisung von Schweißern im Arbeitsschutz (Instructions on working safety for welders)*
 - *Kraume, Zober: Arbeitssicherheit und Gesundheitsschutz in der Schweißtechnik (Working safety and health protection in welding)*