

Welding consumables:	Solid wires/rods Ni < 1 by weight-% Rev. 4	reviewed on:	20.04.06
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1. Product- and company designation OERLIKON	
1.1 Information on the product	
Trade names:	
MG-1 (ER70S-3)	TG-1 (ER70S-3)
MG-2 (ER70S-6)	TG-2 (ER70S-6)
MG-3 (ER70S-6)	TG-102 (ER70S-2)
MG-102 (ER70S-2)	OG-1 (R45)
SW-701 (EL-12)	OG-2 (R60)
SW-702 (EM-12)	
SW-702 Mo (EA 2)	
SW-702 Si (EM-12K)	
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 30
2. Composition/Information on ingredients	
Description:	<i>The products contain less than 1% by weight of Nickel.</i>
Dangerous ingredients:	<i>The products do not contain any dangerous substances..</i>
CAS-Nr.:	<i>not applicable</i>
Designation:	<i>not applicable</i>
Content [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 the dangers:	<i>Welding and grinding cause smoke and dust. Manganese oxide, fine dust (mostly iron oxide) and ozone may be caused..</i>
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 - eventually consult physician.</i>
After swallowing:	<i>not applicable</i>
Information for physician:	<i>Control examination according to BG-regulation G39. (BG = employer's liability insurance association in Germany)</i>
5. Fire fighting measures	
	<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	
	<i>not applicable</i>
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>
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 concerning the design of technical installations	<i>The measures according to 7.1 have to be respected.</i>
8.2 Ingredients with limits to be examined dependig on the working place	
Designation of substance	CAS-Nr. Limit
Manganese	7439-96-5 0.5 mg/m ³ (MAK) in total dust
Fine dust	- 1.5 mg/m ³ (MAK)
Ozone	10028-15-6 0.2 mg/m ³ (MAK)
8.3 Personal safety equipment	
Breathing, hand, eye, body protection	<i>see UVV (VBG 15), § 27</i>
Protection and hygiene measures:	<i>Do not eat, drink or smoke in the working room.</i>
9. Physical and chemical characteristics	
Exterior aspect:	<i>solid wire</i>
Safety-related data:	<i>not applicable</i>
10. Stability and reactivity	<i>Avod contact with acids and bases. Product stable up to 1200 °C.</i>
11. Information on toxicology	<i>see item 3.</i>
12. Information on ecology	<i>Using exhaust systems the limits of the technical instruction (TA) „AIR“ are applicable. For further information see item 15.</i>
13. Information on disposal (waste)	
Product:	
Recommendation:	<i>Dusts and particles depositing in the exhaust system: disposal according to legal regulations. Cutomary metal scrapping of the products is possible.</i>
Key number for waste disposal.	<i>100805 solid waste from gas cleaning 120103 Chips and parts containing non-ferrous metals 150299D1 Exhaust and filter material with noxious contaminations Accountability (“waybill procedure”)</i>
Uncleaned packaging:	
Cardboard boxes:	<i>Disposal by recycling as not contaminated.</i>
Plastics:	<i>Disposal by recycling as not contaminated.</i>
14. Information on transports	
Comments:	<i>The product is not a hazardous product as defined by the transport instructions.</i>
15. Instructions	
15.1 Marking	none
Identification letter:	<i>not applicable</i>
Danger designation:	<i>not applicable</i>
R-Codes:	<i>not applicable</i>
S-Codes:	<i>not applicable</i>
15.2 National regulations	
Information on employment restriction:	<i>not applicable</i>
Incident V:	<i>not applicable</i>
Classification according to VbF:	<i>not applicable</i>
Technical instruction „Air“:	<i>5 mg/m³ with a mass flux of > 25 g/h</i>
Water hazard class:	<i>Harzards not to be expected..</i>
Other instructions:	<i>not known</i>

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16. Further information	<p><i>Documentation::</i></p> <ul style="list-style-type: none"> - <i>Unfallverhütungsvorschrift(instructions for avoiding accidents) (VBG 15): Schweißen, Schneiden und verwandte Verfahren(Welding, Cutting and similar processes)</i> - <i>DVS-Merkblatt (German Association of Welding Technique Instruction) 1201: Absaugung an Schweißarbeitsplätzen (Exhaust systems at welding working places)</i> - <i>DVS-Faltblätter zum Arbeitsschutz beim Schweißen (DVS brochures on working safety in welding)</i> - <i>DVS-Fachbuch/book: Unterweisung von Schweißern im (Instructions on working safety for welders)</i> - <i>Kraume, Zober: Arbeitssicherheit und Gesundheitsschutz in der Schweißtechnik (Working safety and health protection in welding)</i>
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These indications are based on the most recent knowledge and experience. The safety data sheet describes products concerning the safety requirements. The indications do not represent any guarantee of characteristics.