

<b>Welding consumables:</b>	<b>Coated stick electrodes, High Alloy Rev. 10</b>	reviewed on:	28.01.02
Date:	28.01.02	replaces revision dated:	21.09.95
		page-nr./total pages:	1 / 3

<b>1. Product and company designation</b>	
<b>1.1 Information on the product</b>	
<b>Trade names:</b>	
EI-307MN	EI-308MO
EI-308L	EI-347
EI-310	EIS-309
EIS-308	EI-309L
ENI 422	EI 318
	EI-307
	EI-316L
	EI-312
	EIS-316
	EIS-307
	EI 410 NiMo
	EI 410
<b>1.2 Information on producer/supplier</b>	Oerlikon Kaynak Elektrodları ve Sanayi A.Ş. Organize Sanayi Bölgesi 2. Kısım MANİSA / TURKEY
	Telephone: 0 236 226 26 00
	Fax: 0 236 233 99 77
	Emergency telephone: 0 236 226 26 30
<b>2. Composition/Information on ingredients</b>	
Description:	<i>The products contain more than 1 % by weight of nickel and more than 5 % by weight of chromium.</i>
Dangerous ingredients:	<i>Nickel.</i>
CAS-Nr.:	<i>7440-02-0</i>
Designation:	<i>Ni</i>
Content [% by weight]:	<i>&gt; 1 %</i>
Key letter of the danger symbol:	<i>Xn</i>
R-Code:	<i>R 40 / 43</i>
<b>3. Eventual dangers</b>	
<b>Designation of dangers:</b>	<i>Welding and grinding cause smoke and dust. Chromium VI oxides and Nickel oxide may be formed. Irritative substances such as fluorides and manganese oxides as well as fine dust may be caused (mostly iron oxide).</i>
<b>4. First Aid measures</b>	
<b>General information</b>	
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>
Information for physician:	<i>Control examination according to BG-regulations G24, G 34, G39. (BG = employer's liability insurance association in Germany)</i>
<b>5. Measures for fire fighting</b>	
	<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>
<b>6. Measures in case of unintended release</b>	
	<i>not applicable</i>
<b>7. Handling and storage</b>	
<b>7.1 Handling</b>	
Information for safe handling:	<i>The UVV (German regulations for avoiding accidents) (VBG 15) have to be respected.</i>
<b>7.2 Storage</b>	
Requirement for warehouses/containers:	<i>No special requirement for safety reasons.</i>

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<b>8. Limits of exposure and personal safety equipment</b>	
<b>8.1 Additional information for the design of technical installations</b>	<i>The measures according to 7.1 have to be respected..</i>
<b>8.2 Ingredients with limits to be examined depending on the working place</b>	
<b>Designation of substance</b>	<b>CAS-Nr.                      Limit</b>
Nickel	7440-02-0                      0.5 mg/m <sup>3</sup> (MAK) in total dust
Nickeloxide	1313-99-1                      0.5 mg/m <sup>3</sup> (MAK) in total dust
Chromium-VI-compounds	13765-19-0                      0.1 mg/m <sup>3</sup> (MAK) in total dust
Fluoride	7664-39-3                      2.5 mg/m <sup>3</sup> (MAK) in total dust
Manganese	7439-96-5                      0.5 mg/m <sup>3</sup> (MAK) in total dust
Fine dust	-                                      1.5 mg/m <sup>3</sup> (MAK)
Total dust	-                                      4 mg/m <sup>3</sup> (MAK)
<b>8.3 Personal safety equipment</b>	
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>
<b>9. Physical and chemical characteristics</b>	
Exterior aspect	<i>coated stick electrode</i>
<b>Safety-related data:</b>	<i>not applicable</i>
<b>10. Stability and reactivity</b>	<i>Avoid contact with acids and bases. Product stable up to 800 °C.</i>
<b>11. Information on toxicology</b>	<i>see item 3.</i>
<b>12. Information on ecology</b>	<i>Using exhaust systems the limits of the technical instruction (TA) „Air“ are applicable. For further information see item 15.</i>
<b>13. Information on disposal (waste)</b>	
<b>Product:</b>	
Recommendation:	<i>Dusts and particles depositing in exhaust systems: Disposal according to legal regulations. Customary metal scrapping of the products is possible.</i>
Key number for waste disposal.	<i>100805 solid waste from gas cleaning 120 103 Chips and parts containing non-ferrous metals 150229D Exhaust and filter material with noxious contaminations</i>
Uncleaned packaging:	<i>Disposal via recycling as not contaminated</i>
Cardboard boxes:	<i>Disposal via recycling as not contaminated</i>
Plastics:	
<b>14. Information on transport</b>	
Comments:	<i>The product is not a hazardous product as defined by the transport instructions</i>
<b>15. Instructions</b>	
<b>15.1 Marking</b>	<b>none</b>
Key letter:	<i>not applicable</i>
Danger designation:	<i>not applicable</i>
R-Codes:	<i>not applicable</i>
S-Codes:	<i>not applicable</i>
<b>15.2 National instructions</b>	
Information on employment restrictions:	<i>not applicable</i>
Incident V:	<i>not applicable</i>
Classification according to VbF:	<i>not applicable</i>
Technical instruction "Air":	<i>1 mg/m<sup>3</sup> with a mass flux of &gt; 25 g/h</i>
Water hazard class:	<i>Hazards not to be expected</i>
Other instructions:	<i>not known</i>

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<b>16. Further information</b>	<p><i>Documentation:</i></p> <ul style="list-style-type: none"> <li>- <i>Unfallverhütungsvorschrift (instructions for avoiding accidents) (VBG 15): Schweißen, Schneiden und verwandte Verfahren (Welding, Cutting and related processes)</i></li> <li>- <i>DVS-Merkblatt (German Association of Welding Technique instruction) 1201: Absaugung an Schweißarbeitsplätzen (Exhaust systems at welding working places)</i></li> <li>- <i>DVS-Faltblätter zum Arbeitsschutz beim Schweißen (DVS brochures for working safety in welding)</i></li> <li>- <i>DVS-Fachbuch (book): Unterweisung von Schweißern im Arbeitsschutz (Instructions on working safety for welders)</i></li> <li>- <i>Kraume, Zober: Arbeitssicherheit und Gesundheitsschutz in der Schweißtechnik (Working safety and health protection in welding)</i></li> </ul>
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