

# Safety Data Sheet



according to Regulation (EU) No. 1907/2006

## welding material, containing nickel and chromium

Print date : 27.03.2009

Product code : 9532

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### 1. Identification of the substance/preparation and of the company/undertaking

#### Identification of the substance or preparation

welding material, containing nickel and chromium

#### product name

DURA OKs 448 Ni

#### Use of the substance/preparation

stick electrode for industrial purposes

#### Company/undertaking identification

Company name : Duraweld Schweisstechnik Inh. Yasar Özefe  
Street : Hoepfnerstr. 101  
Place : D-47809 Krefeld, Germany  
Telephone : +49 (0) 21 51/54 89 89  
e-mail : info@duraweld-schweisstechnik.de  
Internet : www.duraweld.de  
Emergency telephone : +1-800-424-9300 (Chemtrec Emergency)

### 2. Hazards identification

#### Classification

Indications of danger : Harmful

R-phrases :

Limited evidence of a carcinogenic effect.

May cause sensitization by inhalation and skin contact.

Harmful: danger of serious damage to health by prolonged exposure through inhalation.

The data available do not support any physical or chemical hazard. May be harmful. May be irritating.

May cause sensitization by inhalation and skin contact. May be harmful with intended application by arising ozone and nitrogen oxides.

Cancer-causing chromium(VI)-compounds could be generated by welding chromium containing materials.

#### Explication of special hazards for human health and environment

The data available do not support any environmental hazard.

### 3. Composition/information on ingredients

#### Chemical characterization ( preparation )

nickel/chromium/tungsten carbide-based stick electrode

#### Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
235-123-0	12070-12-1	tungsten carbide	< 70 %	Carc. Cat. 3 R40-43
231-111-4	7440-02-0	nickel	< 40 %	
231-157-5	7440-47-3	chromium	< 10 %	
231-151-2	7440-42-8	boron	< 3 %	

Full text of each relevant R phrase can be found in heading 16.

### 4. First aid measures

#### After inhalation

Apply fresh air. If irritation of the respiratory passages, due to the product, occurs: call a physician.

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### After contact with skin

Lather with soap and rinse well with water.

### After contact with eyes

Remove contacts. Rinse well with plenty of luke-warm water. Subsequently consult an ophthalmologist.

### After ingestion

Wash out mouth with water. Make affected person vomit if conscious when large quantities swallowed.

## 5. Fire-fighting measures

### Suitable extinguishing media

metal-fire-drencher, dry sand

### Special protective equipment for fire-fighters

Wear self-contained breathing apparatus.

## 6. Accidental release measures

### Personal precautions

Wear suitable protective clothing and gloves (filter mask). Prevent formation of clouds of dust. Aerate closed rooms. Follow safety measures in section 7 and 8.

### Environmental precautions

Prevent dispersion. Do not empty into drains or the aquatic environment.

### Methods for cleaning up/taking up

Collect spilled material in sealable containers.

## 7. Handling and storage

### Handling

#### Advice on safe handling

Prevent formation of clouds of dust. Wear suitable protective clothing and gloves.

#### Advice on protection against fire and explosion

Potentially flammable dust in association with air. Prevent from heat and oxidizing materials.

### Storage

#### Requirements for storage rooms and vessels

Store only in original container. Keep in a cool, dry, well-ventilated place. Local exhaust required.

#### Advice on storage compatibility

Store in a fair distance from oxidizing substances and acids.

Storageclass (VCI) : 11

## 8. Exposure controls/personal protection

### Exposure limit values

#### Exposure limits (EH40)

CAS-No.	Chemical name	ml/m <sup>3</sup>	mg/m <sup>3</sup>	F/ml	Category	Origin
7440-47-3	Chromium	-	0.5		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
	- Nickel and its inorganic compounds (except nickel carbonyl);nickel and water-insoluble nickel compounds (as Ni	-	0.5		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

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### Additional advice on control parameters

Formation of ozone and nitrogen oxides on regular use by plasma flame. Leading component: ozone (CAS-Nr. 10028-15-6). Exposure limit value (GER) 0,1 ppm. Exposure limit value (GB) 0,2 ppm. Exposure limit value (USA) 0,05 ppm.  
Cancer-causing chromium(VI)-compounds could be generated by welding chromium containing materials. Exposure limit value Chromium(VI)-compounds: 0,05 mg/m<sup>3</sup>

### Exposure controls

#### Occupational exposure controls

Local exhaust required.

#### Protective and hygiene measures

When using do not eat, drink or smoke.

#### Respiratory protection

During spraying wear suitable respiratory equipment (filter mask).

#### Hand protection

Wear suitable protective clothing and heat-insulated gloves. Avoid contact with skin.

#### Eye protection

Safety goggles and dark lenses as appropriate to the thermal spray process.

## 9. Physical and chemical properties

### General information

Physical state :                   dick electrode  
Colour :                           light to dark grey  
Odour :                            odourless

### Important health, safety and environmental information

	Test method
pH-Value :	not applicable
<b>Changes in the physical state</b>	
Melting point :	approx. 900 bis 1050 °C
Boiling point :	> 2900 °C
Flash point :	not applicable
<b>Flammability</b>	according 92/69 EWG, A10: not applicable
Lower explosion limits :	not identified
Upper explosion limits :	not identified
<b>Oxidizing properties</b>	
according 92/69 EWG, A17: not applicable	
Vapour pressure :	negligible
Density :	2 - 6 g/cm <sup>3</sup>
Water solubility :	not soluble
Solubility in other solvents :	not identified

### Other information

Auto-ignition temperature	according 92/69 EWG, A16: not applicable
Solid :	
Gas :	

## 10. Stability and reactivity

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### Conditions to avoid

stable under normal conditions

### Materials to avoid

oxidizing and acidic material

### Hazardous decomposition products

Formation of ozone and nitrogen oxides on regular use by plasma flame. This reaction is independent to material used.

Cancer-causing chromium(VI)-compounds could be generated by welding chromium containing materials.

## 11. Toxicological information

### Acute toxicity

No toxicological information is available on the product but on the ingredients named in section 3.

### Specific effects in experiment on an animal

Nickel: LD50 (rat): 10.000 mg/kg

### Sensitising effects

Exposure to high concentrations may lead to sensitizing action to the skin and airways. May lead to allergic or irritative reactions on very sensitive persons.

### Severe effects after repeated or prolonged exposure

may be irritant to mouth, throat and esophagus on prolonged exposure.

### Carcinogenic/mutagenic/toxic effects for reproduction

Category 3 (EU): There is well-founded concern about the possible carcinogenic effects on human beings.

### Further information

may be harmful through products of decomposition on regular use (see section 10)

## 12. Ecological information

### Ecotoxicity

No ecological information is known on the product but on the in chapter 3 named ingredients

Chromium: LC50 (fish, 96 h): 58.000 µg/l; EC50 (algae, 48 h): 220 µg/l

Nickel: LC50 (fish, 96 h): 53830 µg/l

## 13. Disposal considerations

### Advice on disposal

Disposal according to the local legislation. Waste of residues: Keep waste separate. Because of possible pollution, remove as industrial waste or hazardous waste. Contaminated packaging: Keep waste separate. Because of possible pollution, remove as industrial waste or hazardous waste.

### Waste disposal number of used product

12101 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS

### Waste disposal number of contaminated packaging

12101 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS

## 14. Transport information

### Land transport (ADR/RID)

#### Remarks (land transport)

Free for transport regulations.

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### Inland waterways transport

#### Remarks (inland waterways transport)

Free for transport regulations.

### Marine transport

#### Remarks (marine transport)

Free for transport regulations.

### Air transport

#### Remarks (air transport)

Free for transport regulations.

## 15. Regulatory information

### Labelling

Danger symbols : Xn - Harmful



Xn - Harmful

### Hazardous component(s) to be indicated on label

Nickel

### R phrases

- 40 Limited evidence of a carcinogenic effect.
- 42/43 May cause sensitization by inhalation and skin contact.
- 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

### S phrases

- 22 Do not breathe dust.
- 24 Avoid contact with skin.
- 36/37 Wear suitable protective clothing and gloves.
- 38 In case of insufficient ventilation, wear suitable respiratory equipment.

### Special labelling for certain preparations

Contains Nickel. May produce an allergic reaction.

### National regulatory information

Water contaminating class : 2 - water contaminating

## 16. Other information

### Full text of R-phrases referred to under sections 2 and 3

- 40 Limited evidence of a carcinogenic effect.
- 42/43 May cause sensitization by inhalation and skin contact.
- 43 May cause sensitization by skin contact.
- 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

### Further Information

The information enclosed this safety data sheet are correct according to our knowledge. They should detail the needs of safety for our products, but demonstrate no guarantee for product attributes and justify no legal relationship. Our departments will provide assistance with any special question regarding the conventional use of our product.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*