

Safety Data Sheet

according to Regulation (EC) No. 1907/2006

flux cored wire, containing chromium and boron

Print date: 25.05.2011

Product code: 8335

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

flux cored wire, containing chromium and boron

Further trade names

CORODUR 35, CORODUR 35T, CORODUR 64, CORODUR 66, CORODUR 68, CORODUR 69,
CORODUR 72, CORODUR 733, CORODUR 78, CORODUR 87

Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

iron/chromium-based flux cored wire for industrial purposes

Details of the supplier of the safety data sheet

Company name:	CORODUR Fülldraht GmbH	
Street:	Gießerallee 37	
Place:	D-47477 Willich	
Telephone:	+49 (0) 21 54/88 79-0	Telefax: +49 (0) 21 54/88 79-79
e-mail:	info@corodur.de	
Internet:	www.corodur.de	

Emergency telephone: +1-800-424-9300 (Chemtrec Emergency)

SECTION 2: Hazards identification

Classification of the substance or mixture

R-phrases:

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.

Label elements

R phrases

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.

36/37 Wear suitable protective clothing and gloves.

38 In case of insufficient ventilation, wear suitable respiratory equipment.

Additional advice on labelling

No obligation of labelling.

Other hazards

The data available do not support any environmental hazard.

SECTION 3: Composition/information on ingredients

Mixtures

Chemical characterization

iron/chromium-based flux cored wire

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Hazardous components

EC No.	Chemical name	Quantity
CAS No.	Classification	
Index No.	GHS classification	
REACH No.		
231-096-4	Iron	> 50 %
7439-89-6	F R11	
231-157-5	chromium	< 50 %
7440-47-3		
231-151-2	boron	< 5 %
7440-42-8		

Full text of R- and H-phrases: see section 16.

SECTION 4: First aid measures

Description of first aid measures

After inhalation

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

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.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

metal-fire-drencher, dry sand

Advice for firefighters

Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

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 and material for containment and cleaning up

Collect spilled material in sealable containers.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

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

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Conditions for safe storage, including any incompatibilities

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.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure limits (EH40)

CAS No.	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
7440-47-3	Chromium	-	0.5		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

Additional advice on limit values

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/m³

Exposure controls

Occupational exposure controls

Local exhaust required.

Protective and hygiene measures

When using do not eat, drink or smoke.

Respiratory protection

Respiratory protection required in case of: insufficient ventilation.

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.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Cored wire
 Colour: grey
 Odour: odourless

Test method

pH-Value: not applicable

Changes in the physical state

Melting point: approx. 1010 bis 1025 °C
 Boiling point: > 2900 °C
 Flash point: not applicable

Flammability

according 92/69 EWG, A10:
 not applicable

Lower explosion limits: not identified

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Upper explosion limits:

not identified

Auto-ignition temperature

according 92/69 EWG, A16:
not applicable

Solid:

Gas:

Oxidizing properties

according 92/69 EWG, A17: not applicable

Vapour pressure:

negligible

Density:

2 - 6 g/cm³

Water solubility:

not soluble

Other information

SECTION 10: Stability and reactivity

Conditions to avoid

stable under normal conditions

Incompatible materials

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.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

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

CAS No.	Chemical name				
	Exposure routes	Method	Dose	Species	h
7439-89-6	Iron				
	Acute oral toxicity	LD50	30000 mg/kg	Ratte	

Specific effects in experiment on an animal

Boron: LD50 (mouse): 2 g/kg

Sensitizing effects

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

Further information

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

SECTION 12: Ecological information

Toxicity

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

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CAS No.	Chemical name			
	Aquatic toxicity	Method	Dose	Species
7439-89-6	Iron			h
	Acute fish toxicity	LC50	1,29 mg/l	96

SECTION 13: Disposal considerations

Waste treatment methods

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

SECTION 14: Transport information

Land transport (ADR/RID)

Other applicable information (land transport)

Free for transport regulations.

Inland waterways transport

Other applicable information (inland waterways transport)

Free for transport regulations.

Marine transport

Other applicable information (marine transport)

Free for transport regulations.

Air transport

Other applicable information (air transport)

Free for transport regulations.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

Water contaminating class (D): -- not water contaminating

SECTION 16: Other information

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

- 11 Highly flammable.
- 42/43 May cause sensitization by inhalation and 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

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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.)