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

### 1.1. Product identifier

**Name of product** Hartmetall-Elektrode für tucadur 2020

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Identified uses

#### Product categories [PC]

PC38 - Welding and soldering products (with flux coatings or flux cores), flux products

### 1.3. Details of the supplier of the safety data sheet

#### Manufacturer/distributor

joke Technology GmbH  
Asselborner Weg 14-16, D-51249 Bergisch Gladbach  
Phone +49 (0) 22 04 / 8 39-0, Fax +49 (0) 22 04 / 8 39-60  
E-Mail [info@joke.de](mailto:info@joke.de)  
Internet [www.joke.de](http://www.joke.de)

#### Advice

Phone +49 (0) 22 04 / 8 39-0  
Fax +49 (0) 22 04 / 8 39-60  
E-mail (competent person):  
[safety-data-sheet@joke.de](mailto:safety-data-sheet@joke.de)

### 1.4. Emergency telephone number

#### Emergency advice

Vergiftungs-I-Z. Freiburg  
Phone Telefon: +49 (0) 761 / 1 92 40  
REACH and CLP UK CA Help Desk; Telephone: +44  
171 635 9191

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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

#### Additional hints

Compact metal/alloy without hazards for human health or environment.

When working or processing (eg welding, cutting, grinding) dusts and smoke may occur, which may cause health hazards when inhaled (see section 8.2).

### 2.2. Label elements

#### Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

No information available.

### 2.3. Other hazards

#### Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.



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## SECTION 3: Composition/ information on ingredients

### 3.1. Substances

not applicable

### 3.2. Mixtures

#### Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
7440-48-4	231-158-0	cobalt	3 - 30	Resp. Sens. 1, H334 / Skin Sens. 1, H317 / Aquatic Chronic 4, H413
12070-12-1	235-123-0	Wolframcarbid	40 - 97	
12070-08-5	235-120-4	Titancarbid	0 - 15	

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

No special actions required.

#### In case of inhalation

Leave the danger area after inhalation of dust and smoke.

#### In case of skin contact

No special measure necessary.

#### In case of eye contact

not applicable

#### In case of ingestion

not applicable

### 4.2. Most important symptoms and effects, both acute and delayed

#### Physician's information / possible symptoms

No information available.

#### Physician's information / possible dangers

No data available

### 4.3. Indication of any immediate medical attention and special treatment needed

#### Treatment (Advice to doctor)

Treat symptoms.

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Dry fire-extinguishing substance

#### Unsuitable extinguishing media

Full water jet

### 5.2. Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolyse products.



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### **5.3. Advice for firefighters**

#### **Special protective equipment for fire-fighters**

Use breathing apparatus with independent air supply.  
Wear full protective clothing.

#### **Additional information**

not applicable

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## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **For non-emergency personnel**

Remove persons to safety.  
Avoid dust formation.  
Use personal protective clothing.

### **6.2. Environmental precautions**

no

### **6.3. Methods and material for containment and cleaning up**

Take up mechanically and send for disposal.

#### **Additional Information**

Informations for safe handling see chapter 7.  
Informations for personal protective equipment see chapter 8.  
Informations for disposal see chapter 13.

### **6.4. Reference to other sections**

No information available.

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## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Avoid the formation of dust.  
During thermal processing and / or machining extraction at processing machines is necessary.

#### **General protective measures**

Do not inhale dust/fumes/aerosols.

#### **Hygiene measures**

Remove soiled or soaked clothing immediately.  
Keep away from food and drink.  
Wash hands and skin before breaks and after work.

#### **Advice on protection against fire and explosion**

No special measures necessary.

### **7.2. Conditions for safe storage, including any incompatibilities**

#### **Requirements for storage rooms and vessels**

No special measures required.

#### **Advice on storage compatibility**

Do not store with oxidizing agents.

#### **Further information on storage conditions**

Protect from wetness.

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**Information on storage stability**

Unlimited stability.

**7.3. Specific end use(s)**

**Recommendation(s) for intended use**

See section 1.2

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**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**8.2. Exposure controls**

**Respiratory protection**

In case of dust formation wear micro dust mask.

**Hand protection**

no

**Eye protection**

safety goggles

**Other protection measures**

no

**Limitation and surveillance of the environment**

No information available.

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**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**Appearance**

solid

**Colour**

grey

**Odour**

odourless

**Odour threshold**

No data available

**Important health, safety and environmental information**

	Value	Temperature	at	Method	Remark
<b>pH value</b>	not applicable				
<b>not applicable</b>	not determined				
<b>melting range</b>	1495 °C				
<b>Flash point</b>	not applicable				
<b>Vapourisation rate</b>	not applicable				
<b>Flammable (solid)</b>	not applicable				
<b>Flammability (gas)</b>	not applicable				
<b>Ignition temperature</b>	not applicable				



	Value	Temperature	at	Method	Remark
<b>Self ignition temperature</b>	not applicable				
<b>Lower explosion limit</b>	no				
<b>Upper explosion limit</b>	no				
<b>Vapour pressure</b>	not applicable				
<b>Relative density</b>	13,5 - 15,7 g/ cm <sup>3</sup>				
<b>Bulk density</b>	no				
<b>Vapour density</b>	not applicable				
<b>Solubility in water</b>	not applicable				
<b>Solubility/other</b>	not determined				
<b>Partition coefficient n-octanol/water (log P O/W)</b>	not applicable				
<b>Decomposition temperature</b>	not applicable				
<b>Viscosity not applicable</b>	not determined				
<b>Solvent separation test</b>	not applicable				
<b>Solvent content</b>	no				
<b>Oxidising properties</b>	no				
<b>Explosive properties</b>	no				
<b>9.2. Other information</b>	No information available.				

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

no

### 10.2. Chemical stability

stable

### 10.3. Possibility of hazardous reactions

no



**10.4. Conditions to avoid**

no

**10.5. Incompatible materials**

**Substances to avoid**

Oxidising agent, strong

**10.6. Hazardous decomposition products**

Carbon monoxide and carbon dioxide.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity/Irritation/Sensitization**

	Value/Validation	Species	Method	Remark
<b>Skin irritation</b>	non-irritant			
<b>Eye irritation</b>	non-irritant			
<b>Skin sensitization</b>	non-sensitizing			
<b>Sensitization respiratory system</b>	No information available.			

**Subacute Toxicity - Carcinogenicity**

	Value	Species	Method	Validation
<b>Subacute Toxicity</b>				No information available.
<b>Subchronic Toxicity</b>				No information available.
<b>Chronic Toxicity</b>				No information available.
<b>Mutagenicity</b>				No information available.
<b>Reproduction-Toxicity</b>				No information available.
<b>Carcinogenicity</b>				No information available.
<b>Specific target organ toxicity (single exposure)</b>	No information available.			
<b>Specific target organ toxicity (repeated exposure)</b>	No information available.			
<b>Aspiration hazard</b>	not applicable			
<b>Toxicity test (Additional information)</b>	No information available.			



**Experiences made from practice**

Dust or formation of smoke irritates mucous membranes of respiratory tract.

**Additional information**

no

**SECTION 12: Ecological information**

**12.1. Toxicity**

No information available.

**12.2. Persistence and degradability**

	Elimination rate	Method of analysis	Method	Validation
<b>Physico-chemical degradability</b>				not applicable
<b>Biological degradability</b>				not degradable
<b>Degradability</b>				not degradable

**12.3. Bioaccumulative potential**

Because of its consistency the product cannot be dispersed in the environment. Adverse ecological effects are therefore unlikely on the basis of current knowledge.

**12.4. Mobility in soil**

not applicable

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Other adverse effects**

No information available.

**Additional ecological information**

	Value	Method	Remark
<b>OC</b>			not applicable
<b>COD</b>			not applicable
<b>BOD</b>			not applicable

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Waste code No.**

12 01 03

**Name of waste**

non-ferrous metal filings and turnings

**Recommendations for the product**

Can be disposed of together with household refuse in accordance with the regulations and on consultation with the disposal agency and the relevant authorities.

In accordance with regulations for special waste, must be taken, after pretreatment, to an authorised special waste disposal site.



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**Recommendations for packaging**

Totally emptied packaging may be taken for recycling.

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**SECTION 14: Transport information**

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA-DGR</b>
<b>14.1. UN number</b>	-	-	-
<b>14.2. UN proper shipping name</b>	-	-	-
<b>14.3. Transport hazard class(es)</b>	-	-	-
<b>14.4. Packing group</b>	-	-	-
<b>14.5. Environmental hazards</b>	-	-	-

**14.6. Special precautions for user**

No information available.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No information available.

**Land and inland navigation transport ADR/RID**

No dangerous goods as defined by these transport regulations.

**Marine transport IMDG**

No dangerous goods as defined by these transport regulations.

**Air transport ICAO/IATA-DGR**

No dangerous goods as defined by these transport regulations.

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**SECTION 15: Regulatory information**

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

No information available.

**15.2. Chemical Safety Assessment**

For this substance a chemical safety assessment is not required.

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**SECTION 16: Other information**

**Further information**

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.3

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H413 May cause long lasting harmful effects to aquatic life.

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