

**CoCr Modellgusslegierung**

Material no.		Version	<b>2.2 / GB</b>
Specification	<b>102937</b>	Revision date	<b>19.02.2009</b>
VA-Nr		Print Date	<b>19.02.2009</b>
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**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**
**Product information**

Trade name	:	CoCr Modellgusslegierung
Company	:	DeguDent GmbH Postfach 1364 D-63403 Hanau
Telephone	:	+49 (0)6181/59-5767
Telefax	:	+49 (0)6181/59-5879
Email address	:	SDB@degudent.de
Emergency telephone number	:	+49 (0)180 / 23 24-555
Use of the Substance / Preparation	:	For dental use only.

**2. HAZARDS IDENTIFICATION**
**Additional safety information for humans and the environment**

cobalt - vapour is released during processing.

May cause cancer.

May release metal vapours when melting.

Do not breathe Dusts and vapours:.

Experience with human beings:

To date handling this product has not been known to cause any detrimental effects.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**
**Information on ingredients / Hazardous components**

• <b>cobalt</b>		65%	
CAS-No.	7440-48-4	EC-No.	231-158-0
	R42/43		
	R53		
• <b>chromium</b>		28%	
CAS-No.	7440-47-3	EC-No.	231-157-5
• <b>molybdenum</b>		5%	
CAS-No.	7439-98-7	EC-No.	231-107-2

See chapter 16 for text of risk phrases

**4. FIRST AID MEASURES**
**Inhalation**

Upon formation of vapours / fumes are formed: / In case product dust is released:  
cough, sneezing, flow of tears.

In the case of high or long-term exposure:

Possible discomfort:

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gastro-intestinal complaints, difficulty in breathing, drop in blood pressure, cramp, fever.

Symptoms may occur with delay.

Move victims into fresh air.

In case of persistent discomfort:

Consult a physician immediately.

**Skin contact**

Dusts and vapours:

Wash off immediately with soap and plenty of water.

**Eye contact**

In case product dust is released:

Rinse thoroughly with plenty of water keeping eyelid open.

In case of persistent discomfort

Consult an ophthalmologist.

**Ingestion**

Consult a physician.

**Notes to physician**

Upon formation of vapours / fumes are formed: / In case product dust is released:

In the case of high or long-term exposure:

Fever induced by metal vapours possible.

cobalt:

gastro-intestinal symptoms, skin reddening, drop in blood pressure, cramp, cyanosis.

Treatment of symptoms.

After absorbing large amounts of substance:

Acceleration of gastrointestinal passage

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**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

All extinguishing substances suitable.

**Special protective equipment for fire-fighters**

No special protective equipment required.

**Further information**

The product itself does not burn.

Adapt fire extinguishing methods to site.

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**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

No special precautions required.

**Methods for cleaning up**

Use mechanical handling equipment.

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**7. HANDLING AND STORAGE****Handling****Safe handling advice**

When melting, soldering and grinding:

Local ventilation.

Do not breathe Dusts and vapours:.

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No particular measures required if used correctly.  
If occurs dust / vapour: Wear personal protective equipment

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Components with workplace control parameters****• cobalt**

CAS-No.	7440-48-4	EC-No.	231-158-0
Control parameters	0.1 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 WEL)

**• chromium**

CAS-No.	7440-47-3	EC-No.	231-157-5
Control parameters	0.5 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 OES)

Control parameters	0.05 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 MEL)
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Control parameters	4 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 (UK))
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type of exposition	Respirable dust.		
Control parameters	10 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 (UK))

type of exposition	Total inhalable dust.		
Control parameters	0.5 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 WEL)

Control parameters	2 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EU ELV)
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**• molybdenum**

CAS-No.	7439-98-7	EC-No.	231-107-2
Control parameters	10 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 WEL)

Control parameters	20 mg/m <sup>3</sup>		Short Term Exposure Limit (STEL):(EH40 WEL)
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**Engineering measures**

cobalt - vapour is released during processing.  
Ensure suitable suction/aeration at the work place and with operational machinery.

**Personal protective equipment****Respiratory protection**

When working without/without sufficient suction of objects:  
Respirator with P3 particle filter

**Hand protection**

protective gloves

**Eye protection**

Safety glasses with side-shields  
If fumes, dust occurs: basket-shaped glasses

**Skin and body protection**

If cobalt - vapour occurs: Change contaminated clothing.  
Use suitable skin protective agents before handling product. Cleanse and apply cream to skin after work. Preventive skin protection recommended.

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**Hygiene measures**

If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used. No eating, drinking, smoking, or snuffing tobacco at work. Wash face and/or hands before break and end of work.

Do not inhale fumes, dust, vapour.

If the limits at the workplace are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form	solid
Colour	white
Odour	odourless

**Safety data**

Melting point/range	1320 - 1380 °C
Density	8.4 g/cm <sup>3</sup>

**10. STABILITY AND REACTIVITY**

Conditions to avoid	None known
Materials to avoid	None known
Hazardous decomposition products	decomposition products if heated above melting point. Metallic vapours

**11. TOXICOLOGICAL INFORMATION**

Further information	No dangerous reactions are known to occur with correct handling and storage. Cobalt (dusts and vapours): Clues to possible carcinogenic effects in animal experiments. literature
Human experience	To date handling this product has not been known to cause any detrimental effects.

**12. ECOLOGICAL INFORMATION****Elimination information (persistence and degradability)****Behaviour in environmental compartments****Ecotoxicity effects****Further information on ecology**

Further Information	Dusts and water soluble alloy types: Prevent penetration into soil, stretches of water and drainage systems.
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**13. DISPOSAL CONSIDERATIONS****Product**

Disposal according to local authority regulations.

**Uncleaned packaging**

Disposal according to local authority regulations.

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**14. TRANSPORT INFORMATION****Transport/further information**

Not classified as dangerous in the meaning of transport regulations.

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**15. REGULATORY INFORMATION****Labelling according to EC Directives**

Other data According to the Dangerous Preparations Directive (1999/45/EG):  
no labelling

**National legislation**

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**16. OTHER INFORMATION****Risk phrase (R phrase) texts**

- **cobalt**

R42/43

May cause sensitization by inhalation and skin contact.

R53

May cause long-term adverse effects in the aquatic environment.

**Further information**

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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