

SAFETY DATA SHEET (EC 1907/2006)**DeguDent**

A Dentsply International Company

Biosil f
Biosil I
Biosil Laserdraht

Material no.		Version	2.5 / GB
Specification	102935	Revision date	25.01.2008
VA-Nr		Print Date	25.01.2008
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product information**

Trade name : Biosil f
Biosil I
Biosil Laserdraht

Company : DeguDent GmbH
Postfach 1364
D-63403 Hanau

Telephone : +49 (0)6181/59-5767
Telefax : +49 (0)6181/59-5879
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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**

• cobalt		60% - 70%	
CAS-No.	7440-48-4	EC-No.	231-158-0
	R42/43		
	R53		
• chromium		25% - 35%	
CAS-No.	7440-47-3	EC-No.	231-157-5
• molybdenum		3% - 7%	
CAS-No.	7439-98-7	EC-No.	231-107-2
• Silicium		1% - 5%	
CAS-No.	7440-21-3	EC-No.	215-609-9

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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:

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

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.

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

When melting, soldering and grinding:

Local ventilation.

Do not breathe Dusts and vapours:.

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/m3		Time Weighted Average (TWA):(EH40 WEL)
Control parameters	4 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Respirable dust.		
Control parameters	10 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Total inhalable dust.		

• **chromium**

CAS-No.	7440-47-3	EC-No.	231-157-5
Control parameters	0.5 mg/m3		Time Weighted Average (TWA):(EH40 OES)
Control parameters	0.05 mg/m3		Time Weighted Average (TWA):(EH40 MEL)
Control parameters	4 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Respirable dust.		
Control parameters	10 mg/m3		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Total inhalable dust.		
Control parameters	0.5 mg/m3		Time Weighted Average (TWA):(EH40 WEL)
Control parameters	2 mg/m3		Time Weighted Average (TWA):(EU ELV)

• **molybdenum**

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CAS-No.	7439-98-7	EC-No.	231-107-2
Control parameters	10 mg/m ³		Time Weighted Average (TWA):(EH40 WEL)
Control parameters	20 mg/m ³		Short Term Exposure Limit (STEL):(EH40 WEL)

• Silicium

CAS-No.	7440-21-3	EC-No.	215-609-9
Control parameters	4 mg/m ³		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Respirable dust.		
Control parameters	10 mg/m ³		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Total inhalable dust.		
Control parameters	10 mg/m ³		Time Weighted Average (TWA):(EH40 WEL)
type of exposition	Inhalable dust.		
Control parameters	4 mg/m ³		Time Weighted Average (TWA):(EH40 WEL)
type of exposition	Respirable dust.		

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.

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.

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9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	solid
Colour	white
Odour	odourless

Safety data

Melting point/range	1290 - 1390 °C
Density	8.2 - 8.4 g/cm ³

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.

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

Not classified as dangerous in the meaning of transport regulations.

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

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

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.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.