

DD Bio CW

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

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1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

DD Bio CW are CoCr milling blanks for the manufacture of inlays/onlays, crowns & bridges of any span, primary & secondary parts and cone & telescopic crowns.

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	Dental Direkt GmbH	
Street:	Industriezentrum 106-108	
Place:	D-32139 Spenge	
Telephone:	05225 - 8 63 19-0	Telefax:05225 - 8 63 19-99
e-mail:	info@dentaldirekt.de	
Contact person:	main office	Telephone:05225 - 8 63 19-0
Internet:	www.dentaldirekt.de	
Responsible Department:	info@dentaldirekt.de	

1.4. Emergency telephone number: +49 (0) 761 19240 (VIZ Freiburg)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Respiratory or skin sensitisation: Resp. Sens. 1
Respiratory or skin sensitisation: Skin Sens. 1
Hazardous to the aquatic environment: Aquatic Chronic 4

Germ cell mutagenicity: Muta. 2

Carcinogenicity: Carc. 2

Reproductive toxicity: Repr. 1B

Hazard Statements:

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

May cause an allergic skin reaction.

May cause long lasting harmful effects to aquatic life.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

cobalt

Signal word: Danger**Pictograms:****Hazard statements**

H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H360F	May damage fertility.
H413	May cause long lasting harmful effects to aquatic life.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
7440-48-4	cobalt			25-100 %
	231-158-0	027-001-00-9	01-2119517392-44	
	Resp. Sens. 1, Skin Sens. 1, Aquatic Chronic 4, Muta. 2, Carc. 1B, Repr. 1B; H334 H317 H413 H341 H350 H360F			
7440-47-3	Chromium			25-50 %
	231-157-5		01-2119485652-31	

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No special measures are necessary.

After inhalation

Provide fresh air.

Respiratory complaints: Call a physician in any case!

After contact with skin

Wash with plenty of water.

After contact with eyes

Depending on the condition of the product mechanical (solid metal) or physical (molten metal) hazard possible.

After eye contact with molten metal or injury to the eye by solid, seek medical attention immediately.

After ingestion

Seek medical advice immediately.

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

No information available.

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

No information available.

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5.2. Special hazards arising from the substance or mixture

No information available.

5.3. Advice for firefighters

Co-ordinate fire-fighting measures to the fire surroundings.
Special protective equipment for firefighters Protective clothing.
In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Dispose of waste according to applicable legislation.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

See protective measures under point 7 and 8.
Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.
Treat the recovered material as prescribed in the section on waste disposal .

6.4. Reference to other sections

See protective measures under point 7 and 8.
Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

See section 8.
Wear personal protection equipment (refer to section 8).
Extractor required at the object.
Avoid dust formation.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

Use only in well-ventilated areas.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

No special measures are necessary.

Hints on joint storage

No special measures are necessary.

Further information on storage conditions

none

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
7440-47-3	Chromium	-	0.5		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
7440-48-4	cobalt			
	Worker DNEL, long-term	inhalation	local	0,04 mg/m ³
	Consumer DNEL, long-term	inhalation	local	0,0063 mg/m ³
	Consumer DNEL, long-term	oral	systemic	0,0298 mg/kg bw/day
7440-47-3	Chromium			
	Worker DNEL, long-term	inhalation	local	0,5 mg/m ³
	Consumer DNEL, long-term	inhalation	local	0,027 mg/m ³
7439-98-7	Molybdenum			
	Worker DNEL, long-term	inhalation	systemic	11,17 mg/m ³
	Consumer DNEL, long-term	inhalation	systemic	3,33 mg/m ³
	Consumer DNEL, long-term	oral	systemic	3,4 mg/kg bw/day

PNEC values

CAS No	Substance	Environmental compartment	Value
7440-48-4	cobalt		
	Freshwater		0,0006 mg/l
	Marine water		0,00236 mg/l
	Freshwater sediment		9,5 mg/kg
	Marine sediment		9,5 mg/kg
	Soil		10,9 mg/kg
7440-47-3	Chromium		
	Freshwater		0,0065 mg/l
	Marine water		0 mg/l
	Freshwater sediment		205,7 mg/kg
	Marine sediment		0 mg/kg
	Soil		21,1 mg/kg
7439-98-7	Molybdenum		
	Freshwater		12,7 mg/l
	Marine water		1,91 mg/l
	Freshwater sediment		22600 mg/kg
	Marine sediment		1984 mg/kg
	Soil		9,9 mg/kg

Additional advice on limit values

TRGS 905 - cobalt

Cobalt metal (in the form of respirable dusts / aerosols) H350 Carcinogenic Cat. 1 (Carc. Cat. 1) B

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8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation.

Protective and hygiene measures

Only wear fitting, comfortable and clean protective clothing.

Do not breathe dust/fume/mist.

Wash hands and face before breaks and after work and take a shower if necessary .

When using do not eat, drink, smoke, sniff.

Eye/face protection

Wear eye protection.

Eye glasses

Hand protection

Hand protection is not required

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	silver grey
Odour:	odourless

Test method

pH-Value: not applicable

Changes in the physical state

Melting point: 1230-1380 °C

Initial boiling point and boiling range: not determined

Sublimation point: not determined

Softening point: not determined

Pour point: not determined

Flash point: not applicable

Sustaining combustion: No data available

Flammability

Solid: No information available.

Gas: No information available.

Explosive properties

not explosive.

Lower explosion limits: not determined

Upper explosion limits: not determined

Ignition temperature: not applicable

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Auto-ignition temperature

Solid: not determined
Gas: not determined

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

The Product ist not self igniting.

Vapour pressure: not determined

Density (at 20 °C): 8,8 g/cm³

Bulk density: not determined

Water solubility: insoluble in: water

Solubility in other solvents

No information available.

Partition coefficient: not determined

Viscosity / dynamic: not determined

Viscosity / kinematic: not determined

Flow time: not determined

Vapour density: not determined

Evaporation rate: not determined

Solvent content: 0%

9.2. Other information

No information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

No information available.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No information available.

Further information

No information available.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Based on available data, the classification criteria are not met.

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	
7440-48-4	cobalt				
	oral	LD50 6170 mg/kg	Rat	GESTIS	

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

May cause an allergic skin reaction. (cobalt)

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (cobalt)

Carcinogenic/mutagenic/toxic effects for reproduction

May cause cancer.

Suspected of causing genetic defects.

May damage fertility.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Inhalation of dust may cause irritation of the respiratory system.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information
12.1. Toxicity

CAS No	Chemical name				
	Aquatic toxicity	Dose	[h] [d]	Species	Source
7440-48-4	cobalt				
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Brachydanio rerio	

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. Other adverse effects

No information available.

Further information

The product is: non-hazardous to water (nwg)

Metals, as far as they are solid, are not present in colloidal solution and do not react with water or atmospheric oxygen are not hazardous to water.

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Advice on disposal

Material recycling possible.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Dispose of waste according to applicable legislation.

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Waste disposal number of waste from residues/unused products

120104 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; non-ferrous metal dust and particles

Contaminated packaging

Water (with cleaning agent)
Non-contaminated packages may be recycled.
Dispose of waste according to applicable legislation.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No information available.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
cobalt

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Chromium

SECTION 16: Other information**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer
(Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association"
(IATA) ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
CAS: Chemical Abstracts Service (division of the American Chemical Society)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CLP: Regulation on Classification, Labelling and Packaging of Substances and Mixtures,
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
EC50: Effect concentration, 50 percent
DNEL: Derived No Effect Level
PNEC: Predicted No Effect Concentration
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

Relevant H and EUH statements (number and full text)

H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H360F	May damage fertility.
H413	May cause long lasting harmful effects to aquatic life.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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