

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

Version number 18

Revision: 18.04.2023

CoCr BioStar



Date of printing: 15.06.2023

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

- 1.1 Product identifier**
Tradename: CoCr BioStar
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Application of the substance / the mixture: No further relevant information available.
For the production of dental prostheses in the dental laboratory
- 1.3 Details of the supplier of the safety data sheet**
Manufacturer: Eisenbacher Dentalwaren ED GmbH
Street / mailbox: Dr.-Konrad-Wiegand-Str. 9
Country code. / postal code / city: DE-63939 Woerth / GERMANY
Phone: +49 (0) 9372-94 04 0
Fax: +49 (0) 9372-94 04 29
E-mail / Website:
Further information obtainable from: product management tel.: +49 93 72 - 94 04 - 0
or by mail: info@eisenbacher.de
- Supplier:** SILADENT Dr. Böhme & Schöps GmbH
Street / mailbox: Im Klei 26
Country code. / postal code / city: DE - 38644 Goslar
Phone: +49 (0) 53 21 / 37 79 – 0
Fax: +49 (0) 53 21 / 38 96 32
E-mail / Website: info@siladent.de - www.siladent.de
- 1.4 Emergency telephone number:** Tel.: +49 (0) 9372 9404 0, Monday to Friday 8.00 a.m. to 5.00 p.m., in German and English, also contact the local poison control centres

SECTION 2: Hazards identification

- Medical devices according EG 2017-745 in their final state are exempted from the GB CLP legislation.
- 2.1 Classification of the substance or mixture**
Classification according to Regulation (EC) No 1272/2008: The following classification is not applicable to the alloy but only for the fumes, smokes and dusts formed during the processing and machining.
- | | | |
|-------------------|------|--|
| Resp. Sens. 1 | H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Skin Sens. 1 | H317 | May cause an allergic skin reaction. |
| Aquatic Chronic 4 | H413 | May cause long lasting harmful effects to aquatic life. |
- Additional information:** The specified classification and labelling relates to safe handling of the alloy and the manufacturing of dental prostheses and not for application in the oral cavity.
- 2.2 Label elements:** Medical devices according EG 2017-745 in their final state are exempted from the GB CLP legislation. The following labelling is not applicable to the alloy but only for the fumes, smokes and dusts formed during the processing and machining.
- Labelling according to Regulation (EC) No 1272/2008:** The product is classified and labelled according to the CLP regulation.

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Hazard pictograms:



GHS08

Signal word:

Danger

Hazard statements

- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P284 [In case of inadequate ventilation] wear respiratory protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P362+P364 Take off contaminated clothing and wash it before reuse.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P321 Specific treatment (see on this label).
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Information pertaining to particular dangers for man and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation:

Description:

Mixtures

Cobalt-based alloy

Dangerous components:

| | | |
|----------------------------|---|-----------|
| CAS: 7440-48-4 | cobalt | ≥50-≤100% |
| EINECS: 231-158-0 | Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1B, H350; | |
| Index number: 027-001-00-9 | Repr. 1B, H360F; Skin | |
| | Sens. 1, H317; Aquatic Chronic 4, H413 | |
| CAS: 7440-47-3 | chromium | ≥10-<50% |
| EINECS: 231-157-5 | substance with a Community workplace exposure limit | |
| CAS: 7440-33-7 | tungsten | ≥2.5-<25% |
| EINECS: 231-143-9 | substance with a Community workplace exposure limit | |
| CAS: 7440-21-3 | silicon | ≥0-<10% |
| EINECS: 231-130-8 | Flam. Sol. 2, H228 | |

Additional information:

Refer to Section 16 for the wording of the listed hazard statements.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

No special measures required.

After inhalation:

Supply fresh air; consult doctor in case of symptoms.

After skin contact:

Wash with water and soap.

After eye contact:

Rinse opened eye for 15 minutes under running water.
Then consult doctor.

After swallowing:

Rinse out mouth and then drink plenty of water (approx. 500 ml). In case of persistent symptoms consult doctor.

4.2 Important acute and delayed symptoms and effects:

No further relevant information available.

4.3 Information for the doctor:

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing aids:

Use fire fighting measures that suit the environment.
CO₂, extinguishing powder or water jet. Fight larger fires with foam.
ABC powder
Sand

5.2 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

Fire can cause release of:
Metal vapour and metal oxides as fumes.

5.3 Protective equipment:

Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

6.1 Person-related safety precautions:

Avoid causing dust.
Wear protective clothing.
Ensure adequate ventilation
Use breathing protection against the effects of fumes/dust/aerosol.

Protective equipment and to be used in emergencies procedure:

Ensure adequate ventilation.
Use breathing protection against the effects of fumes/dust/aerosol.

6.2 Measures for environmental protection:

Do not allow concentrated solutions to enter drainage system, surface or ground water.

6.3 Measures for cleaning/collecting:

Collect mechanically.

6.4 Reference to other sections:

See section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling: Prevent formation of dust.
Provide suction extractors if dust is formed.
Ensure good ventilation/exhaustion at the workplace.
Extractors are required on all machines used for thermal processing or metal removal processes.

Information about protection against explosions and fires: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and containers: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Store in cool, dry conditions in well-sealed containers.

7.3 Specific end uses: No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with critical values that require monitoring at the workplace:

7440-48-4 cobalt

WEL (Great Britain) Long-term value: 0.1 mg/m³
as Co; Carc, Sen

7440-47-3 chromium

WEL (Great Britain) Long-term value: 0.5 mg/m³
IOELV (European Long-term value: 2 mg/m³
Union) as Cr

7440-33-7 tungsten

WEL (Great Britain) Short-term value: 10 mg/m³
Long-term value: 5 mg/m³
as W

7440-21-3 silicon

WEL (Great Britain) Long-term value: 10* 4** mg/m³
*inhalable dust **respirable dust

Ingredients with biological limit values:

| CAS No. | Designation of material | % | Type | Value | Unit |
|---------|--|---|------------------------|-------|-------------------|
| | General dust exposure limit, measured as alveolic part | | German TRGS 900 (2015) | 1,25 | mg/m ³ |

Additional information: The lists that were valid during compilation were used as a basis.

8.2 Exposure controls Personal protective equipment

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| | |
|--|--|
| General protective and hygienic measures: | The usual precautionary measures should be adhered to in handling the chemicals. Wash hands during breaks and at the end of the work. Do not eat, drink or smoke while working. Avoid contact with the eyes and skin. Do not inhale dust / smoke / mist. |
| Breathing equipment: | Use breathing protection in case of insufficient ventilation. Short term filter device: ABEK-filter Filter P3. |
| Protection of hands: | Protective gloves: In case of spray contact at least protection index 2 recommended, according to more than 30 min. penetration time (EN 374). Layer thickness of gloves at least: 0.4 mm In case of prolonged and intensive contact protection index 6 recommended, according to more than 480 min. penetration time (EN 374). Layer thickness of gloves at least: 0.7 mm |
| Material of gloves: | Butyl rubber, BR Fluorocarbon rubber (Viton) Nitrile rubber, NBR Natural rubber, NR Chloroprene rubber, CR Neoprene gloves |
| Penetration time of glove material: | The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. |
| Eye protection: | Safety glasses (DIN 58211, EN 166) |
| Body protection: | Light weight protective clothing. |

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

General Information

Appearance:

Form:

Solid

Colour:

Silver-coloured

Smell:

Odourless

Odour threshold:

not applicable

pH-value:

not applicable

Change in condition

Melting point/freezing point:

1,390-1,415 °C

Initial boiling point and boiling range:

2000 °C

Flash point:

not applicable

Inflammability (solid, gaseous):

not applicable

Auto-ignition temperature:

not applicable

Decomposition temperature:

not determined

Explosive properties:

Product is not explosive.

Critical values for explosion:

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| | |
|---|---------------------|
| Lower: | not applicable |
| Upper: | not applicable |
| Dust explosion class: | |
| Oxidising properties: | not applicable |
| Steam pressure: | not applicable |
| Density at 20 °C: | 8 g/cm ³ |
| Evaporation rate: | not applicable |
| Solubility in / Miscibility with Water: | Unsoluble |
| Partition coefficient: n-octanol/water: | not applicable |
| Viscosity dynamic: | not applicable |
| kinematic: | not applicable |
| Solvent content: | |
| Solids content: | 100.0 % |

9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

| | |
|---|---|
| 10.1 Reactivity: | No further relevant information available. |
| 10.2 Chemical stability: | No decomposition if used according to specifications. |
| 10.3 Possibility of hazardous reactions: | No dangerous reactions known. |
| 10.4 Conditions to avoid: | No further relevant information available. |
| 10.5 Incompatible materials: | No further relevant information available. |
| 10.6 Hazardous decomposition products: | Formation of metal vapour when melting. |

SECTION 11: Toxicological information

| | |
|---|---|
| 11.1 Information on toxicological effects: | |
| Acute toxicity: | Based on available data, the classification criteria are not met. |
| LD/LC50 values that are relevant for classification: | Oral LD50 >2,000 mg/kg (rat) |
| Primary irritant effect: | |
| Skin corrosion/irritation: | Based on available data, the classification criteria are not met. |
| Serious eye damage/irritation: | Based on available data, the classification criteria are not met. |
| Respiratory or skin sensitisation: | May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. |
| Subacute to chronic toxicity: | Do not breathe dust. Harmful: possible risk of irreversible effects through inhalation. |
| Additional toxicological information: | |

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| | |
|---|---|
| Repeated dose toxicity: | No further relevant information available. |
| CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): | May cause cancer. Suspected of causing genetic defects. |
| Germ cell mutagenicity: | Based on available data, the classification criteria are not met. |
| Carcinogenicity: | Based on available data, the classification criteria are not met. |
| Reproductive toxicity: | Based on available data, the classification criteria are not met. |
| 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. |
| Aspiration hazard: | Based on available data, the classification criteria are not met. |

SECTION 12: Ecological information

| | |
|---|---|
| 12.1 Toxicity | |
| Acute toxicity: | No further relevant information available. |
| 12.2 Persistence and degradability: | No further relevant information available. |
| Other information: | Inorganic salts are basically not biodegradable. |
| 12.3 Bioaccumulative potential: | Does not accumulate in organisms. |
| 12.4 Mobility in soil: | No further relevant information available. |
| Ecotoxical effects: | |
| Remark: | No data |
| Other information: | No COD, no BOD, no AOX No VOC (0%) according to EC-directive 1999/13/EC |
| Additional ecological information: | |
| General notes: | Do not allow product to reach ground water, water bodies or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into soil. |
| 12.5 Results of PBT and vPvB assessment: | PBT: Not applicable. vPvB: Not applicable. |
| 12.6 Other adverse effects: | No further relevant information available. |

SECTION 13: Disposal considerations

| | |
|--------------------------------------|---|
| 13.1 Waste treatment Methods: | Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Contact manufacturer for recycling information. Must be specially treated in adherence to official regulations. |
|--------------------------------------|---|

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Uncleaned packaging:

Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product. Dispose of packaging according to regulations on the disposal of packagings.

Recommended cleaning agent:

Water, if necessary, with cleaning agent.

SECTION 14: Transport information

| | | |
|------|--|-----------------|
| 14.1 | UN number: ADR/RID/ADN, IMDG, IATA: | Void |
| 14.2 | UN proper shipping Name: ADR/RID/ADN, IMDG, IATA: | Void |
| 14.3 | Transport Hazard classes: ADR/RID/ADN, IMDG, IATA: Class: | Void |
| 14.4 | Packing Group: ADR/RID/ADN, IMDG, IATA: | Void |
| 14.5 | Environmental hazards: | Not applicable. |
| 14.6 | Special precautions: | Not applicable. |
| 14.7 | Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| | Transport/Additional information: UN "Model Regulation": | Void |

SECTION 15: Regulatory information

| | | |
|------|---|---|
| 15.1 | Safety, health and environmental regulations / legislation specific for the substance or mixture: | |
| | Directive 2012/18/EU Named dangerous substances - ANNEX I: | None of the ingredients is listed. |
| | National regulations: Information about limitation of use: | Employment restrictions concerning young persons must be observed. |
| | Other regulations, limitations and prohibitive regulations: | The general dust exposure limit of 1.25 mg/m ³ , measured as alveolic part has to be observed (German TRGS 900, 2015). |
| 15.2 | Chemical safety assessment: | A Chemical Safety Assessment has not been carried out. |

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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Relevant phrases

| | |
|-------|--|
| H228 | Flammable solid. |
| 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. |

Contact: info@eisenbacher.de

Abbreviations and Terms:

| | |
|--------------------|--|
| RID: | Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) |
| ADR: | Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) |
| IMDG: | International Maritime Code for Dangerous Goods |
| IATA: | International Air Transport Association |
| GHS: | Globally Harmonised System of Classification and Labelling of Chemicals |
| EINECS: | European Inventory of Existing Commercial Chemical Substances |
| ELINCS: | European List of Notified Chemical Substances |
| CAS: | Chemical Abstracts Service (division of the American Chemical Society) |
| LC50: | Lethal concentration, 50 percent |
| LD50: | Lethal dose, 50 percent |
| PBT: | Persistent, Bioaccumulative and Toxic |
| vPvB: | very Persistent and very Bioaccumulative |
| Flam. Sol. 2: | Flammable solids – Category 2 |
| Resp. Sens. 1: | Respiratory sensitisation – Category 1 |
| Skin Sens. 1: | Skin sensitisation – Category 1 |
| Muta. 2: | Germ cell mutagenicity – Category 2 |
| Carc. 1B: | Carcinogenicity – Category 1B |
| Repr. 1B: | Reproductive toxicity – Category 1B |
| Aquatic Chronic 4: | Hazardous to the aquatic environment - long-term aquatic hazard – Category 4 |

Sources: source ECHA: European Chemicals Agency, <http://echa.europa.eu/>.

* Data compared to the previous version altered.