



**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 03.06.2017

Version number 3

Revision: 03.06.2017

Hazardous according to criteria of Australian Safety and Compensation Council

## 1 Identification of the substance/mixture and of the company/undertaking

· **Product identifier**

· **Trade name:** **cara CoCr SLM**

· **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.

· **Application of the substance / the mixture** Manufacture of dental prothesis

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Heraeus Kulzer Australia Pty Ltd  
Unit 32  
11 – 21 Underwood Rd  
HOMEBUSH NSW 2140  
Australia

Tel: +61 (0) 2 9764 5222

· **Informing department:** see above

· **Emergency telephone number:** Emergency contact number: 13 11 26 (24 hours)

## 2 Hazards identification

· **Classification of the substance or mixture**

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.

· **Label elements**

· **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**

cobalt

· **Hazard statements**

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

May cause an allergic skin reaction.

· **Precautionary statements**

Wear respiratory protection.

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

Wear protective gloves/protective clothing/eye protection/face protection.

Specific treatment (see on this label).

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

· **Other hazards** Vapors and grinding dust may contain harmful components.

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- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

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### 3 Composition/information on ingredients

- **Chemical characterisation: Mixtures**

- **Description: -**

- **Dangerous components:**

CAS: 7440-48-4 EINECS: 231-158-0	cobalt	Resp. Sens. 1, H334; Skin Sens. 1, H317	50-75%
CAS: 7440-47-3 EINECS: 231-157-5	chromium		20-30%
CAS: 7439-98-7 EINECS: 231-107-2	molybdenum	Ox. Sol. 1, H271	4-10%
CAS: 7440-33-7 EINECS: 231-143-9	tungsten		4-10%

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

### 4 First aid measures

- **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**  
Instantly wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
In case of persistent symptoms consult doctor.  
Seek immediate medical advice.
- **Information for doctor**
  - **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
  - **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
  - **Protective equipment:** No special measures required.

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· **Additional information -**

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**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter drainage system, surface or ground water.
- **Methods and material for containment and cleaning up:** Collect mechanically.
- **Reference to other sections**  
See Section 13 for information on disposal.  
See Section 8 for information on personal protection equipment.

**7 Handling and storage**

- **Handling**
  - **Precautions for safe handling**  
Wear protective equipment. Keep unprotected persons away.  
Ensure good ventilation/exhaustion at the workplace.  
Provide suction extractors if dust is formed.
  - **Information about protection against explosions and fires:** No special measures required.
- **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:** None.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with critical values that require monitoring at the workplace:**

**7440-48-4 cobalt**

NES (Australia)	0.05 mg/m <sup>3</sup> Sen
PEL (USA)	0.1* mg/m <sup>3</sup> as Co; *for metal dust & fume, as Co
REL (USA)	0.05 mg/m <sup>3</sup>
TLV (USA)	0.02 mg/m <sup>3</sup> as Co; BEI

**7440-47-3 chromium**

NES (Australia)	0.5 mg/m <sup>3</sup>
PEL (USA)	1 mg/m <sup>3</sup>
REL (USA)	0.5 mg/m <sup>3</sup>

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TLV (USA)	0.5 mg/m <sup>3</sup>
<b>7440-33-7 tungsten</b>	
NES (Australia)	Short-term value: 10* 3** mg/m <sup>3</sup> Long-term value: 5* 1** mg/m <sup>3</sup> as Wi; *insoluble comp.; **soluble comp.
PEL (USA)	and insoluble compounds, as We
REL (USA)	Short-term value: 10 mg/m <sup>3</sup> Long-term value: 5 mg/m <sup>3</sup> and insoluble compounds, as W
TLV (USA)	Short-term value: 10 mg/m <sup>3</sup> Long-term value: 5 mg/m <sup>3</sup> and insoluble compounds, as W
<b>7439-98-7 molybdenum</b>	
NES (Australia)	10* 5** mg/m <sup>3</sup> as Mo; *insoluble comp.; **soluble comp.
PEL (USA)	5 mg/m <sup>3</sup> soluble compounds, as Mo
TLV (USA)	10 I* 3 R* 0.5 R* mg/m <sup>3</sup> as Mo *insoluble compounds **soluble compounds

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

Wash hands during breaks and at the end of the work.

· **Breathing equipment:** Filter P3.

· **Protection of hands:**

Impervious gloves

Check protective gloves prior to each use for their proper condition.  
recommended

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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.

· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Butyl rubber, BR

Nitrile rubber, NBR

· **Eye protection:** Safety glasses

· **Body protection:** Light weight protective clothing

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### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:**

Rope

· **Colour:**

Grey

· **Smell:**

Odourless

· **Odour threshold:**

Not determined.

· **pH-value:**

Not applicable.

· **Change in condition**

· **Melting point/Melting range:**

1380-1440 °C

· **Boiling point/Boiling range:**

Not determined

· **Flash point:**

Not applicable

· **Inflammability (solid, gaseous)**

Not determined.

· **Ignition temperature:**

· **Decomposition temperature:**

Not determined.

· **Self-inflammability:**

Product is not selfigniting.

· **Danger of explosion:**

Product is not explosive.

· **Critical values for explosion:**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Steam pressure:**

Not applicable.

· **Density at 20 °C**

8.3 g/cm<sup>3</sup>

· **Relative density**

Not determined.

· **Vapour density**

Not applicable.

· **Evaporation rate**

Not applicable.

· **Solubility in / Miscibility with**

· **Water:**

Insoluble

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· **dynamic:**

Not applicable.

· **kinematic:**

Not applicable.

· **Solvent content:**

· **Solids content:**

100.0 %

· **Other information**

No further relevant information available.

### 10 Stability and reactivity

· **Reactivity** No further relevant information available.

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- **Chemical stability**
  - **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** None
- **Additional information:** -

### 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity**
    - **LD/LC50 values that are relevant for classification:** -
    - **Primary irritant effect:**
      - **Skin corrosion/irritation** No irritant effect.
      - **Serious eye damage/irritation** No irritant effect.
    - **Respiratory or skin sensitisation**

Studies concerning biocompatibility (EN ISO 10993) of similar alloys containing cobalt show that this alloys are not classified as skin sensitisers.  
An allergic reaction caused by the alloy is very seldom. If a person is already sensitized against Cobalt the alloy should not be used.
  - **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:** Avoid transfer into the environment.
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation**

Smaller quantities can be disposed with household garbage.  
Disposal must be made according to official regulations.

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- **Uncleaned packagings:**
- **Recommendation:** Packaging can be reused or recycled after cleaning.

### 14 Transport information

· <b>UN-Number</b> · ADG, ADN, IMDG, IATA	Void
· <b>UN proper shipping name</b> · ADG, ADN, IMDG, IATA	Void
· <b>Transport hazard class(es)</b> · ADG, ADN, IMDG, IATA · Class	Void
· <b>Packing group</b> · ADG, IMDG, IATA	Void
· <b>Environmental hazards:</b> · Marine pollutant:	No
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	-
· <b>UN "Model Regulation":</b>	Void

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **GHS label elements**  
The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
cobalt
- **Hazard statements**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.
- **Precautionary statements**  
Wear respiratory protection.

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

*Wear protective gloves/protective clothing/eye protection/face protection.*

*Specific treatment (see on this label).*

*If experiencing respiratory symptoms: Call a POISON CENTER/doctor.*

*IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.*

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 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.*

· **Relevant phrases**

*H271 May cause fire or explosion; strong oxidiser.*

*H317 May cause an allergic skin reaction.*

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

· **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)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*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*

*Ox. Sol. 1: Oxidizing solids – Category 1*

*Resp. Sens. 1: Respiratory sensitisation – Category 1*

*Skin Sens. 1: Skin sensitisation – Category 1*

· **\* Data compared to the previous version altered.**