

EU – Safety Data Sheet

according to Annex II of Regulation (EC) 1907/2006 (REACH)



replaces version 04 from 15.11.2022

Date of issue: 03.04.2023

Version: 05

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Printing date: 21.04.2023

Laser welding wire

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

1.1 Product identifier

Commercial product name: Laser welding wire
No UFI has been assigned to this mixture

1.2 Relevant identified uses of the substance or mixture and uses advised against

Application of the substance / the mixture: Dental alloys containing cobalt that can be as additional material in the manufacture of fixed or mobile dental prostheses in the dental laboratory.

User: trained specialist (dental technician, dentist)

1.3 Details of the supplier of the safety data sheet

Manufacturer: EUKAMED OHG.
Street / mailbox: Cranachstr.44
Country code. / postal code / city: DE-42549 Velbert
Phone: +49 (0) 2051 319404
Fax: +49 (0) 2051 319406
E-mail / Website: info@eukamed.de / www.eukamed.de

Supplier: SILADENT Dr. Böhme & Schöps GmbH
Street / mailbox: Im Klei 26
Country code. / postal code / city: DE - 38644 Goslar
Phone: Tel.: +49 (0) 53 21 / 37 79 – 0
Fax: Fax: +49 (0) 53 21 / 38 96 32
E-mail / Website: info@siladent.de - www.siladent.de

1.4 Emergency telephone number: +49 (0) 2051 319404

SECTION 2: Hazards identification

2.1 Classification in accordance with regulation (EC) No 1272/2008 (CLP):

Hazard categories: Classification according to Regulation (EU) No 2020/217

Carcinogenicity:	Carc.1B	H350	May cause cancer by inhalation
Genetic Toxicity	Muta 2	H341	May cause genetic defects
Reproductive toxicity	Repr 1B	H360F	May impair fertility.
Respiratory sensitization	Resp. Sens.1	H334	Inhalation may cause allergy, asthma-like symptoms or Cause breathing difficulties
Skin sensitization	Skin.Sens1	H317	Can cause allergic skin reactions
Hazardous to the aquatic environment	Aquatic Chronic 4	H413	May be harmful to aquatic organisms, with long-term effect.

2.2 Label elements according to Regulation (EU) No 2020/217

Hazard pictogram



GHS08

Signal word: Danger

Hazard-determining component(s) for labelling: Cobalt

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The following hazard statements do not refer directly to the product, but to the dusts or vapors that may be generated during use and processing.

- 2.3 Other hazards and notes on labelling:** The product, as a cobalt-chromium alloy, in the form in which it is placed on the market, does not present any risk to human health. A label is not required for this product according to Regulation (EC) 1272/2008 (CLP), Annex I section 1.3.4. (Metals in compact form, alloys...).

SECTION 3: Composition/information on ingredients

3.1 Substances	The product is not a substance but a mixture.				
3.2 This alloy is a mixture of					
Ingredients	Part %.	CAS-No	EG/ Index	Hazard category	H-phrases
Cobalt	50-70	7440-48-4	231-158-0	Carc. 1B Muta. 2 Repr. 1B Resp. Sens. 1 Skin. Sens.1 Aquatic Chronic 4	H350 H341 H360F H334 H317 H413
Chrome	19-30	7440-47-3	231-157-5		
Mo	4-7	7439-98-7			
Mn	1	7439-96-5			

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	Do not inhale gas/fume/vapour/aerosol In case of allergic symptoms, especially in the respiratory tract, seek medical advice immediately.
After inhalation:	Provide fresh air, remove the patient from the danger zone, in case of intensive inhalation of vapours consult a doctor immediately.
After skin contact:	Wash off dusts with soap and water. After contact with melted product, quickly cool the affected skin area with water.
After eye contact:	Remove contact lenses, keep eyelids open, rinse dust with water, if necessary consult an ophthalmologist.
After ingestion:	Seek medical attention immediately.
4.2 Most important symptoms and effects, both acute and delayed:	No information available.
4.3 Indications of any immediate medical attention and special treatment needed	No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	The product does not burn.
Suitable extinguishing media:	The product itself does not burn, adapt extinguishing measures to the surroundings, metal burning powder, sand.
Unsuitable extinguishing media:	Water, foam, carbon dioxide, dry extinguishing media

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| 5.2 Special hazards arising from the substance or mixture: | No information available. |
| 5.3 Advice for firefighters: | Adapt self-contained breathing apparatus, extinguishing agents and fire-fighting measures to the environment of the fire. |

SECTION 6: Accidental release measures

- | | |
|---|---|
| 6.1 Personal precautions, protective equipment and emergency procedures:
Task forces: | Ensure sufficient fresh air, avoid dust formation, observe the protective regulations in sections 7), 8).
no information available |
| 6.2 Environmental precautions: | Retain extinguishing water, do not allow to enter sewage system. Do not allow to enter the subsoil / soil. |
| 6.3 Methods and material for containment and cleaning up: | Pick up mechanically, avoid dust formation, treat the picked up material according to section "Disposal". |
| 6.4 Reference to other sections: | Safe handling: see section 7 Personal protective equipment, see section 8 Disposal: see section 13 |

SECTION 7: Handling and storage

- | | |
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| 7.1 Precautions for safe handling
Information for safe handling: | Ensure sufficient room ventilation and use dust extraction at the workplace. Observe general protection and hygiene measures at the workplace, wash hands before breaks and at the end of work. Do not smoke, eat or drink while working. Keep away from food. Do not inhale vapours and dust. |
| 7.2 Conditions for safe storage including any incompatibilities
Requirements for storage rooms and containers: | No special measures,
do not store near explosive substances |
| 7.3 Specific end uses: | no information. |

SECTION 8: Exposure controls/personal protection

- | | |
|--|---|
| 8.1 Control Parameters:
Occupationnel exposure limit values (TRGS 900)
Chromium:
Cobalt, acceptance concentration: | No special requirements.

2E mg/m ³
0.0005 mg/m ³ |
| 8.2 Exposure controls:
Exposer and monitoring measures: | Inhalation of grinding and polishing dusts and fumes from melting and welding. avoid, ensure sufficient ventilation/extraction at the workplace |
| Technical measures: | Use suitable dust extraction during grinding work |
| Personal protective equipment:

Skin protection:
Eye protection: | Use suitable dust extraction during grinding work, resp. Wear dust masks
Protective gloves
Safety goggles |

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Body protection:

Protective gloves, suitable protective clothing.
Observe general protection and hygiene measures at the workplace, wash hands before breaks and at the end of work.
Do not smoke, eat or drink while working. Keep away from food. Do not inhale vapours and dust.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation:	Solid
Colour:	Silver grey
Odour:	Odourless
ph:	No data.
Changes of state	
Boiling point:	no data available
Melting point/range:	1250 -1400 °C
Flash point:	no data
Flammability:	non-flammable
Self-flammability:	non-flammable
Explosion hazard:	no information
Vapour pressure:	no data
Relative density:	8.4 g/cm ³
Water solubility:	No test required, as the substance is known to be insoluble in water.
Viscosity	No data

9.2 Other information: No information available

SECTION 10: Stability and reactivity

10.1 Reactivity:	No reactions are to be expected when used as intended.
10.2 Chemical stability:	No reactions are to be expected if the storage and handling instructions are followed.
10.3 Possibility of hazardous reactions:	In contact with acids, the formation of gases is possible.
10.4 Conditions to be avoid:	No information.
10.5 Incompatible materials:	Acids
10.6 Hazardous decomposition products:	Hazardous decomposition products in contact with acids

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 oral toxicity:	No data available.
Acute dermal toxicity:	No data available.
Corrosive/irritant effect on the skin:	No data available.
11.2 Information on other hazards Delayed and immediate effects and chronic effects after short or prolonged exposure:	Inhalation of product vapours at high The product, as a cobalt-chromium alloy, in the form in which it is placed on the market, does not present any risk to human health.

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SECTION 12: Ecological information

12.1 Toxicity	
Fish toxicity:	No data available
Fish toxicity chronic:	No data available
	Total no data available
12.2 Persistence and degradability:	No data available
12.3 Bioaccumulative potential:	no information available
12.4 Mobility in soil:	no information available
12.5 Results of the PBT and vPvB assessment:	No data available
12.6 Endocrine disrupting properties:	No data available
12.7 Other adverse effects:	no information available Do not allow products to enter the environment in an uncontrolled manner.

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Product:	The assignment of a waste code number in accordance with the European Waste Catalogue (AVV) is to be carried out in consultation with the local / regional waste disposal company
Packing:	The packaging must be emptied of all residues and must be disposed of properly in accordance with the statutory regulations. Packaging that cannot be emptied must be disposed of in consultation with the local / regional waste disposal company.

SECTION 14: Transport information

14.1 UN Number or ID number:	No dangerous goods in the sense of the known regulations
14.5 Environmental hazards	
Hazardous to the environment:	No
14.6 Special precautions for the user:	No special measures required.
14.7 Other relevant information:	No dangerous goods in the sense of the known regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/Legislation specific for the substance or mixture	
Specific regulatory action for the substance or mixture related to cobalt (main constituent of cobalt alloy)	
EU regulations:	The alloy complies with ISO 22674, it has been used for many years without any particular problems as a row-material for the manufacture of fixed and removable dentures.
Additional hints:	A special label is not required for the product according to section 1.3.4 of Annex I of the CLP Regulation.
National regulations	
Water hazard class:	not hazardous to water

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Substances that are carcinogenic, mutagenic or toxic to reproduction (TRGS905) Cobalt metal (in the form of inhalable dusts / aerosols)

1B, M-, RF-, RD

The product, as a cobalt-chromium alloy, in the form in which it is placed on the market, does not present any risk to human health.

15.2 Chemical Safety Assessment:

No chemical safety assessment is required for this mixture.

SECTION 16: Other information

Data sources used to create the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) and Regulation (EU) 2020/878 (REACH), as amended.

The alloy complies with DIN EN ISO 22674, it has been used for many years without any particular problems as a pre-material for the production of fixed or removable dentures.

The product, as a cobalt-chromium alloy, in the form in which it is placed on the market, does not present a hazard to human health.

Wording of H-phrases (number and full text) NOT ALL phrases are relevant for this product!

H302	Harmful if swallowed.
H317	May cause allergic skin reactions.
H319	Causes severe eye irritation.
H334	May cause allergy, asthma-like symptoms or breathing difficulties if inhaled.
H341	May cause genetic defects.
H350i	May cause cancer by inhalation.
H360F	May impair fertility.
H361f	Suspected to impair fertility.
H413	May be harmful to aquatic life with long lasting effects.

Changes to the previous version:

Adaptation of the section description to Regulation (EU) 2020/878, minor insignificant text adjustments.

Further information:

The information is based on the current state of our knowledge and refers to the product as delivered. They are intended to describe our products with regard to safety requirements and therefore do not have the meaning of guaranteeing specific properties.
The information is intended to give you guidance on the safe handling of the product mentioned in this safety data sheet during storage, processing, transport and disposal.
The information is not transferable to other products. Insofar as the product is mixed, blended or processed with other materials or undergoes treatment, the information in this safety data sheet cannot be transferred to the new material thus produced, unless expressly stated otherwise.