

Safety Data Sheet according to 1907/2006/EG, Article 31


1. Identification of substance and company

1.1 Trade name	Zfx™ Cobalt Chromium Eco
1.2 Product name	Zfx™ Cobalt Chromium milling-blanks (available in varying sizes)
Purpose of Use	Manufacture of dental prothesis
1.3 Manufacturer	Zfx GmbH Kopernikusstr. 15, 85221 Dachau, Deutschland Tel.: +49 (0)8131 33 244 - 0, Fax: +49 (0)8131 33 244 - 10 info@zfx-dental.com, www.zfx-dental.com

CE 0123



2. Hazards identification

2.1 Hazard description	 Xn; Harmful
2.2 Information concerning particular hazards for human and environment	The product does not have to be labelled due to the calculation procedure of the „General Classification guideline for preparations of the EU“ in the latest valid version. R42/43: May cause sensitisation by inhalation and skin contact. R53: May cause long-term adverse effects in the aquatic environment.
2.3 Classification system	The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3. Composition/Data on components

Chemical characterization Description: Metal in compact form. Dangerous components:

Chemical composition:	Chemical characterization:			
	Elemental formula	Rest	CAS-No.	EINECS
Co-Cr-Alloy				
Cobalt	Co	50 – 100 %	7440-48-4	231-158-0
Chrom	Cr	25 – 50 %	7440-47-3	231-157-5



4. First aid measures

4.1 General information	No special measures required.
4.2.4.2 Important acute and delayed symptoms and effects	
After inhalation	Supply fresh air; consult doctor in case of complaints.
After swallowing	Seek medical treatment.
After skin contact	Immediately rinse with water.
After eye contact	Seek medical treatment.

5. Fire fighting measures

5.1 Suitable extinguishing agents	Use fire extinguishing methods suitable to surrounding conditions. CO ₂ , powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
5.2 Protective equipment	No special measures required.

6. Accidental release measures

6.1 Person-related safety precautions	Not required.
6.2 Measures for environmental protection	No special measures required.
6.3 Measures for cleaning/collecting	Pick up mechanically.

7. Handling and storage

7.1 Handling	
Information for safe handling	Extractor required at the object. Prevent formation of dust.
Information about fire - and explosion protection	No special measures required.
7.3 Storage	<p>Requirements to be met by storerooms and receptacles: No special requirements</p> <p>Information about storage in one common storage facility: Not required</p> <p>Further information about storage conditions: None</p>



8. Exposure controls/personal protection

8.1 Additional information about design of technical facilities	No further data; see item 7
8.2 Ingredients with limit values that require monitoring at the workplace	<ul style="list-style-type: none"> × 7440-47-3 chromium × WEL Long-term value: 0.5 mg/m³
8.3 Additional information	The lists valid during the making were used as basis.
8.4 Personal protective equipment	<p>General protective and hygienic measures: Do not inhale dust / smoke / mist. Wash hands before breaks and at the end of work.</p> <p>Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation. Protection of hands: Not required Material of gloves: - Penetration time of glove material: - Eye protection: Safety glasses Body protection: Protective work clothing</p>

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties	
Melting point/Melting range	1230 – 1380 °C
Boiling point/Boiling range	undetermined
Flash point	not applicable
Ignition temperature	not applicable
Self-ignitin	Product is not selfigniting.
Danger of explosion	Product does not present an explosion hazard.
Explosion limits: Oxidizing properties	none
Density at 20°C	8.8 g/cm ³
Solubility in water / Miscibility with water	insoluble
pH-value	not applicable
Solvent content: Organic solvents	0.0 %

9.2 Other information	
Form	solid
Colour	silver grey
Smell	odourless



10. Stability and reactivity

10.1 Thermal decomposition / conditions to be avoided	No decomposition if used according to specifications.
10.2 Dangerous reactions	No dangerous reactions known.
10.3 Dangerous decomposition products	No dangerous decomposition products known.

11. Toxicological information

11.1 Acute toxicity	LD/LC50 values relevant for classification: 7440-48-4 Cobalt Oral LD50 6170 mg/kg (Ratte)
11.2 Primary irritant effect	On the skin: No irritant effect On the eye: No irritant effect
11.3 Sensitization	Sensitization possible through inhalation. Sensitization possible through skin contact.
11.4 Additional toxicological information	The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: harmful, irritant

12. Disposal considerations

12.1 Product	<p>Recommendation Contact waste processors for recycling information. Must be specially treated adhering to official regulations.</p> <p>European waste catalogue 12 00 00: wastes from shaping and physical and mechanical surface treatment of metals and plastics 12 01 00: wastes from shaping and physical and mechanical surface treatment of metals and plastics 12 01 04: non-ferrous metal dust and particles</p>
12.1 Uncleaned packaging	<p>Recommendation Packaging may be reused or recycled after cleaning. Recommended cleansing agents: Water, if necessary together with cleansing agents.</p>



13. Transport information

13.1 Land transport ADR/RID (cross-border)	ADR/RID class: -
13.2 Maritime transport IMDG	IMDG Class: - Marine pollutant: No
13.3 Air transport ICAO-TI and IATA-DGR	ICAO/IATA-Class: -

14. Regulatory information

14.1 Safety, health and environmental regulations / legislation specific for the substance or mixture	
Labelling according to EU guidelines	Although this product is not subject to identification regulations, we recommend that the safety suggestions are observed. Observe the general safety regulations when handling chemicals.
Code letter and hazard designation of product	Xn; Harmful
Hazard-determining components of labelling	Cobalt
Risk phrases	42/43: May cause sensitisation by inhalation and skin contact. 53: May cause long-term adverse effects in the aquatic environment.
Safety phrases	22: Do not breathe dust. 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

15. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Zfx GmbH makes no express or implied warranty or guarantee as to the accuracy, reliability or completeness of the information. The user is responsible for compliance with all relevant legal requirements.

The product must be used by trained dental technicians who have knowledge of the proper use manner and can therefore be considered a misuse of responsibility.

Relevant R-phrases	
42/43	May cause sensitisation by inhalation and skin contact.
53	May cause long-term adverse effects in the aquatic environment.