

SAFETY DATA SHEET

Ih dentalloy® K

1. Identification of the substance/mixture and of the Company

1.1 Product identifier

Trade Name on the packaging label: Ihdentallooy® K

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

Relevant identified uses of the substance or mixture:

Manufacturing of dental prosthesis in a dental laboratory

Uses advised against:

No data available

1.3 Details of the supplier of the Safety Data Sheet

Manufacturer/Supplier:	Dr. Ihde Dental AG
Address:	Dorfplatz 11 CH-8737 Gommiswald/SG
Telephone:	+41 (0)55 293 23 23
Fax:	+41 (0)55 293 23 00
E-mail address:	contact@implant.com

1.4 Emergency telephone number

Telephone no: Dr. Stefan Ihde +41 (0)79 821 90 45 (08.00 - 17.30)

2. Hazards Identification

2.1 Classification of the substance or mixture

Hazard statements:

Classification in accordance with Regulation (EC) n. 1272/2008 (CLP):

Aquatic Chronic 4; H413

Resp. Sens. 1; H334

Skin Sens. 1; H317

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.

Precautionary statements:

Classification in accordance with Standard (EC) n. 1272/2008:

P102 Keep out of reach of children;

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P202 Do not handle until all safety precautions have been read and understood;
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P270 Do not eat, drink or smoke when using this product;
 P280 Wear protective gloves/protective clothing/eye protection/face protection;
 P501 Dispose of contents/container according to the relevant current rules.

2.2 Labelling Information:

Labelling according to regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



GHS08

Signal word

Danger

Hazardous component(s) to be indicated on label:

cobalt

Hazard statements

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

Precautionary statements

P273	Avoid release to the environment.
P285	In case of inadequate ventilation wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P363	Wash contaminated clothing before reuse.

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Labelling information

In the form in which it is marketed, the product causes no danger to health for humans through inhalation, swallowing or contact with the skin. There is therefore no obligation to label the product in accordance with:

- regulation 1272/2008 (CLP: annex I; 1.3.4.: "Metals in massive form, alloys, mixtures containing polymers, mixtures containing elastomers).

2.3 Other hazards:

If the product form in the as-supplied state is changed through further processing (e.g. through grinding, polishing, electrical discharge machining, welding or melting) and dust or vapors are produced, there may be danger from hazardous components in the product.

PBT assessment: No data available

vPvB assessment: No data available

3. Composition/information on ingredients

3.1 Substances

The product is not a substance but an alloy.

3.2 Mixtures

Hazardous ingredients

<i>Ingredients:</i>	<i>CAS number EINECS number</i>	<i>Classification (EC) 1272/2008 (CLP)</i>	<i>%</i>
Cobalt (Co)	CAS-No.7440-48-4 EC-No. 231-158-0	Aquatic Chronic 4; H413 Resp. Sens. 1; H334 Skin Sens. 1; H317	64
Chromium (Cr)	CAS-No.7440-47-3 EC-No. 231-157-5		21
Tungsten (W)	CAS-No.7440-33-7 EC-No. 231-143-9		6

4. First aid measures

4.1 Description of first aid measures

General information

In case of allergic symptoms, especially respiratory tract related, seek medical help immediately.

After inhalation:

If large amount is inhaled or under an asthma attack, ensure supply of fresh air and contact a doctor.

After skin contact:

Wash off contaminated areas with water or remove contaminated clothing and have a shower. Wash clothing before reuse. Avoid prolonged or repeated skin contact.

After eye contact:

Remove contact lenses, irrigate with clean and fresh water for at least 15 minutes.

After swallowing:

If a large amount is ingested induce vomiting only if the person is conscious and contact a doctor.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5. Fire-fighting measures

Coherent form of Cobalt-Chrome alloys run no risk of fire or explosion. At the contrary, if the material is fine divided (powder) it can explode at open air

5.1 Extinguishing media

Suitable extinguishing media:

Metal fire powders, sand.

Unsuitable extinguishing media:

Water, Foam, CO₂, Dry chemicals.

5.2 Special hazards arising from the substance or mixture:

No data available.

5.3 Advice for firefighters:

Use of aqualung and fully protective garment.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Ensure adequate ventilation. Do not inhale vapours. Avoid dust formation. Refer to protective measures listed in sections 7 and 8.

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For emergency responders:

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions:

Collect contaminated water separately. Do not discharge into the drains/surface, waters/groundwater. Do not discharge into the subsoil/soil.

6.3 Methods and material for containment and cleaning up:

Treat the material as prescribed under heading “disposal considerations”.

6.4 Reference to other sections

No data available.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation, if necessary).

General protective and hygiene measures

Wash hands before breaks and after work. Do not eat, drink or smoke during work time. Remove soiled or soaked clothing immediately. Keep away from foodstuffs and beverages. Do not inhale vapours or dust.

Advice on protection against fire and explosion

Dust can form an explosive mixture with air. Take precautionary measures against static charges. Keep away from sources of ignition. No special measures necessary.

7.2 Cautions for safe storage

Technical measures and storage conditions

Keep container tightly closed in a well-ventilated place.

Requirements for storage rooms and vessels

No special measures required.

Advice on storage assembly

Do not store together with: explosive substances

8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

Substance name	CAS no.	EC no.
cobalt	7440-48-4	231-158-0
List of approved workplace exposure limits (WELs) / EH40		
Cobalt TWA 0.1 mg/m ³		
List of approved workplace exposure limits (WELs) / EH40		
Cobalt compounds Co TWA 0.1 mg/m ³		
chromium	7440-47-3	231-157-5
List of approved workplace exposure limits (WELs) / EH40		
Chromium TWA 0.5 mg/m ³		
tungsten	7440-33-7	231-143-9
List of approved workplace exposure limits (WELs) / EH40		
Tungsten: soluble STEL 3 mg/m ³ TWA 1 mg/m ³		
List of approved workplace exposure limits (WELs) / EH40		
Tungsten: insoluble STEL 10 mg/m ³ TWA 5 mg/m ³		

8.2 Exposure controls

Respiratory protection

If solid Cobalt-Chrome alloy forms are converted in manufacturing processes to particulates, maintain working environment below the recommended limits by use of appropriate ventilation if ventilation is not adequate, then respiratory protection should be used.

Eye protection

Safety goggles with side-shields (EN 166) to be used.

Skin and body protection

Suitable protective clothing to be used.

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Hand protection

In case of thermal processing, thermally insulating protective gloves are to be used. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer’s instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Odour threshold	No data available
pH value	No data available
Boiling point / boiling range	No data available
Melting point / melting range	1460°C
Decomposition point / decomposition range	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Oxidising properties	No data available
Explosive properties	No data available
Flammability (solid, gas)	No data available
Lower flammability or explosive limits	No data available
Upper flammability or explosive limits	No data available

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Vapour pressure	No data available
Vapour density	No data available
Evaporation rate	No data available
Relative density	No data available
Density	8,8 g/cm ³
Solubility in water	insoluble
Solubility(ies)	No data available
Partition coefficient: n-octanol/water	No data available
Viscosity	No data available

9.2 Other Information:

No data available

10. Stability and reactivity

10.1 Reactivity:

Dangerous reactions are not expected if the product is handled according to its intended use.

10.2 Chemical stability:

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions:

Possible hydrogen formation upon contact with acids.

10.4 Conditions to avoid:

None, if handled according to intended use.

10.5 Incompatible materials:

Acids

10.6 Hazardous decomposition products:

No hazardous decomposition products known.

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11. Toxicological information

Under normal handling and use, exposure to massive forms of Chrome-Cobalt alloys presents few health hazards. If however, massive forms are converted to particulates then both acute and chronic health hazards are possible.

11.1 Information on toxicological effects

Acute oral toxicity	No data available
Acute dermal toxicity	No data available
Acute inhalational toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No data available
Reproduction toxicity	No data available
Carcinogenicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available
Delayed and immediate effects as well as chronic effects from short and long-term exposure	Inhalation of vapours in high concentration may cause metal fume fever and may cause damage of the central nervous system in case of repeated and prolonged exposure. Repeated and prolonged exposure to high dust concentrations may lead to irritation of the respiratory tract. Inhalation of metal-containing dusts may cause acute poisoning, leading to nausea, vomiting

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and abdominal pain.

12. Ecological information

12.1 Toxicity

Toxicity to fish (acute):	No data available
Toxicity to fish (chronic):	No data available
Toxicity to Daphnia (acute):	No data available
Toxicity to Daphnia (chronic):	No data available
Toxicity to algae (acute):	No data available
Toxicity to algae (chronic):	No data available
Bacteria toxicity	No data available

12.2 Persistence and degradability:

No data available.

12.2 Bioaccumulative potential:

No data available.

12.3 Mobility in soil:

No data available.

12.4 Results of PBT and vPvB assessment

No data available

13. Disposal Considerations

The processing scrap must be disposed of as special waste in accordance with the EC directives 91/156/EC on waste, 91/689/EC on hazardous waste and 94/62/EC on packaging and packaging waste and in compliance with national legislation in force on the subject.

14. Transport information

14.1 Transport ADR/RID/AND

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

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14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

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

Not relevant.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

<p>Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)</p>
<p>According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.</p>
<p>REACH candidate list of substances of very high concern (SVHC) for authorisation</p>
<p>According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.</p>
<p>Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES</p>
<p>According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.</p>
<p>Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances</p>
<p>This product is not subject to Part 1 or 2 of Annex I.</p>
<p>Other regulations</p>
<p>Adhere to the national sanitary and occupational safety regulations when using this product.</p>

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15.2 Chemical safety assessment

No data available.

16. Other information

Sources of key data used to compile the data sheet: Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case. EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU National Threshold Limit Values of the corresponding countries as amended in each case. Transport regulations according to ADR, RID, IMDG, IATA as amended in each case. The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter

These information are based on our present state of knowledge. However it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.