

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.04.2018


Version: 6

Revision: 17.04.2018

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

- **1.1 Product identifier**
- **Trade name:** Microlit isi
- **Article number:** 622124, 622125
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** see point 3)
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Schütz Dental GmbH, Dieselstrasse 5-6, D-61191 Rosbach v.d.H. (Germany)
Tel.: +49 (0)6003/814-0 Fax: +49 (0)6003/814-900
www.schuetz-dental.de; e-mail: info@schuetz-dental.de
- **Further information obtainable from:** F&E, Tel. +49 (0)6003/814-100
- **1.4 Emergency telephone number:**
+49 (0) 6003 8140 Schütz Dental (8:00 - 17:00 Uhr) or
+49 (0) 6131 19240 Poison Information Center, University Mainz (24 h)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
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:**
In its quality as a compact metal, this product is not subject to any labelling obligation due to the calculation method of the "General Classification Guideline for Preparations of the EU" as issued in the latest valid version.
The following labelling does not apply to the alloy, but to possible vapors, fumes and gases that may be produced during processing.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
GHS label elements
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**

GHS08
- **Signal word** Danger
- **Hazard-determining components of labelling:**
cobalt
- **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**
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description:

Metal alloy

Co Cr W Si Fe Mn

61,1 27,8 8,5 1,7 0,5 0,3 (%)

· Dangerous components:

CAS: 7440-48-4 EINECS: 231-158-0	cobalt ⚠ Resp. Sens. 1, H334; ⚠ Skin Sens. 1, H317; Aquatic Chronic 4, H413	50-75%
CAS: 7440-47-3 EINECS: 231-157-5	chromium substance with a Community workplace exposure limit	25-50%
CAS: 7440-33-7 EINECS: 231-143-9	tungsten substance with a Community workplace exposure limit	2.5-10%
CAS: 7440-21-3 EINECS: 231-130-8	silicon, containing more than 99.99 per cent by weight of silicon ⚠ Flam. Sol. 2, H228	<2.5%

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

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· **General information** No special measures required.

· After inhalation

Rinse nose and throat thoroughly with water.

Supply fresh air; consult doctor in case of complaints.

· **After skin contact** Immediately wash with water and soap and rinse thoroughly.· **After eye contact** Rinse opened eye for several minutes under running water.

· After swallowing

Seek medical treatment.

Rinse out mouth and then drink plenty of water.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· **Suitable extinguishing agents** Special powder for metal fires. Do not use water.· **For safety reasons unsuitable extinguishing agents** Water.· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· 5.3 Advice for firefighters

· **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.· **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.

· 6.4 Reference to other sections

No dangerous substances are released.

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

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Extractors are required on all machines used for thermal processing or splinter removal processes.
- **Information about fire - and explosion protection:** *No special measures required.*
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
The packages are to be secured against sliding, tilting, rolling, and falling.
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:** *None.*
- **7.3 Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

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

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**

Dust MAK 6 mg/m³
 1317-35-7 Manganese oxide
 MAK: 1 mg/m³
 Cobalt oxide
 MAK: 0,1 mg/m³ (TRK)

7440-48-4 cobalt

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

7440-47-3 chromium

WEL Long-term value: 0.5 mg/m³

7440-33-7 tungsten

WEL Short-term value: 10 mg/m³
 Long-term value: 5 mg/m³
 as W

7440-21-3 silicon, containing more than 99.99 per cent by weight of silicon

WEL Long-term value: 10 * 4 ** mg/m³
 *inhalable dust **respirable dust

- **Additional information:** *The lists valid during the making were used as basis.*

- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**

*The usual precautionary measures are to be adhered to when handling chemicals.
 Do not inhale dust / smoke / mist.*

- **Respiratory protection:**
*Not necessary if room is well-ventilated.
 Use suitable respiratory protective device in case of insufficient ventilation.
 Dust protective mask
 Filter P2.*
- **Protection of hands:** *Protective gloves.*
- **Material of gloves**
Butyl rubber, BR

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Nitrile rubber, NBR

Natural rubber, NR

· **Penetration time of glove material**

0,3 mm

Penetration time 60 min.

0,11 mm

Penetration time 10 min.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Tightly sealed goggles.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form: tubes

Colour: shiny metallic

· **Odour:** Odourless

· **Odour threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/freezing point: ~1.320 °C

Initial boiling point and boiling range: undetermined

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Not determined.

· **Ignition temperature:**

Decomposition temperature: Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapour pressure:** Not applicable.

· **Density at 20 °C:** 8,6 g/cm³

· **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 %

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· 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**
- **Thermal decomposition / conditions to be avoided:** 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:** No dangerous decomposition products known

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 relevant for classification:**7440-48-4 cobalt**

Oral LD50 6,170 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.
- **Additional toxicological information:**
When grinding the material dust is developed, the composition of which is dependant on the chemical analysis. These oxides are non-toxic, but put stress on the lungs. Mostly oxides, which are set free:
Si
Mo
W
Co
Furthermore, manganese compounds, cobalt oxides and chromium oxides are developed.
Avoid inhalation of grinding dust.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **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**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.

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- **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**
- **Recommendation**
Contact waste processors for recycling information.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

06 04 05*	wastes containing other heavy metals
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|--|-----------------|
| · 14.1 UN-Number | |
| · ADR, ADN, IMDG, IATA | Void |
| · 14.2 UN proper shipping name | |
| · ADR, ADN, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es) | |
| · ADR, ADN, IMDG, IATA | |
| · Class | Void |
| · 14.4 Packing group | |
| · ADR, IMDG, IATA | Void |
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · 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**
- **Technical instructions (air):**

Class	Share in %
II	50-75
III	25-50

- **Waterhazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.

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

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SECTION 16: 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.

· **Relevant phrases**

H228 Flammable solid.

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.

· **Department issuing SDS:** F & E

· **Contact:** Dr. U. Krichbaum

· **Abbreviations and acronyms:**

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 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

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

Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

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

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