

**1 Identification of substance**

- **Product details**
- **Trade name: Wieland Z23**
- **Application of the substance / the preparation** *Semi-finished product*
- **Manufacturer/Supplier:**  
Wieland-Werke AG  
Graf-Arco-Straße 36  
89079 Ulm (Germany)  
Tel.: +49 (0)731/944-3706  
Fax: +49 (0)731/944-4617
- **Information department:**  
Department testing laboratories  
michael.ebner@wieland.de
- **Emergency information:**  
Factory security offices  
Phone: +49 (0) 731-944-0

**2 Hazards identification**

- **Hazard description:** *Not applicable.*
- **Information pertaining to particular dangers for man and environment:**  
*The product does not have to be labelled due to the calculation procedure of international guidelines.*
- **Classification system:**  
*The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.*
- **Additional information:**  
*Semi-finished products in copper or copper-alloys, as offered for sale as manufactures present no health hazard to man or for the aquatic environment.*

**3 Composition/Data on components**

- **Chemical characterization**
- **Description:** *Metal in compact form.*
- **UNS-number:** C36000

· **Dangerous components:**

CAS: 7440-50-8 RTECS: GL 5325000	copper	60-62%
CAS: 7440-66-6 RTECS: ZG 8600000	zinc	balance%
CAS: 7439-92-1 RTECS: OF 7525000	lead	2.5-3.5%

**4 First aid measures**

- **General information:** *No special measures required.*

**5 Fire fighting measures**

- **Suitable extinguishing agents:** *Use fire fighting measures that suit the environment.*
- **For safety reasons unsuitable extinguishing agents:** *Water in case of liquid melt.*
- **Protective equipment:** *In case of liquid melt use protective equipment.*

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### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Not required

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Further information about storage conditions:** None.

### 8 Exposure controls and personal protection

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

- **Components with limit values that require monitoring at the workplace:**

#### 7440-50-8 copper

PEL	1* 0.1** mg/m <sup>3</sup> as Cu *dusts and mists **fume
REL	1* 0.1 R** mg/m <sup>3</sup> as Cu *dusts and mists **fume
TLV	Short-term value: (0.1)** mg/m <sup>3</sup> Long-term value: (1)* (02)** mg/m <sup>3</sup> *dusts and mists; **fume; as Cu

#### 7439-92-1 lead

PEL	0.05* mg/m <sup>3</sup> *see 29 CFR 1910.1025
REL	<0.1* mg/m <sup>3</sup> and compounds *blood Pb <0.06 mg/100 g whole blood
TLV	0.05* mg/m <sup>3</sup> *and inorganic compounds, as Pb; BEI

- **Additional Occupational Exposure Limit Values for possible hazards during processing:**

#### general dust limit (A - alveolar fraction, E - respirable fraction)

TLV (ACGIH)	(A) 3 (E) 10 mg/m <sup>3</sup>
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#### 1314-13-2 zinc oxide

PEL	15* 5** 5*** mg/m <sup>3</sup> Dust only *total dust **respirable dust ***fume
REL	Short-term value: C 15* 10*** mg/m <sup>3</sup> Long-term value: 5 5*** mg/m <sup>3</sup> *15-min; dust only ***fume
TLV	Short-term value: 10 R mg/m <sup>3</sup> Long-term value: 2 R mg/m <sup>3</sup>

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

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.  
Do not inhale dust / smoke / mist.

- **Breathing equipment:** Use a suitable industrial gas mask when work-place-limits are exceeded.

- **Protection of hands:**

Protective gloves are recommended, depending upon how the semis are further processed.

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- **Eye protection:**  
Protective goggles are recommended, depending upon how the semis are further processed.
- **Body protection:**  
Wear suitable protective clothing, depending upon how the semis are further processed.

## 9 Physical and chemical properties

### · General Information

<b>Form:</b>	Solid
<b>Color:</b>	copper yellow
<b>Odor:</b>	Odorless

### · Change in condition

**Melting point/Melting range:** 885-900°C (1625-1652°F) (Lit.)

**Boiling point/Boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density at 20°C (68°F):** 8.5 g/cm<sup>3</sup> (Lit.)

· **Solubility in / Miscibility with Water:** Insoluble.

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Dangerous reactions** Reacts with strong acids.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

## 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to classification according to internally approved calculation methods for preparations:  
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

- **General notes:**  
For semi-finished products in copper or copper-alloys no information regarding ecology is suitable, as they are practically insoluble in water.

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**13 Disposal considerations**

- **Product:**
- **Recommendation:** Contact manufacturer for recycling information.

**14 Transport information**

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border):**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

**15 Regulations**

- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

7440-50-8 copper

7439-92-1 lead

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

7439-92-1 lead

· **Chemicals known to cause reproductive toxicity for females:**

7439-92-1 lead

· **Chemicals known to cause reproductive toxicity for males:**

7439-92-1 lead

· **Chemicals known to cause developmental toxicity:**

7439-92-1 lead

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**

7440-50-8 copper

D

7439-92-1 lead

B2

· **IARC (International Agency for Research on Cancer)**

7439-92-1 lead

2B

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

7439-92-1 lead

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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

**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.*

· **Department issuing MSDS:** Department testing laboratories

· **Contact:**

Dr. Michael Ebner

Phone (+)49 (0)731/944-3706

USA