

1 Identification

- **1.1 Product identifier**
 - Trade name: **Wieland Z46**
 - **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
 - Application of the substance / the preparation: Semi-finished product
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- **1.3 Details of the supplier of the safety data sheet**
 - Manufacturer/Supplier:
Wieland-Werke AG
Graf-Arco-Straße 36
89079 Ulm (Germany)
Tel.: +49 (0)731/944-0
Fax: +49 (0)731/944-2799
 - Information department:
Department testing laboratories
michael.ebner@wieland.de
 - **1.4 Emergency telephone number:**
Factory security offices
Phone: +49 (0) 731-944-3706

2 Hazard(s) identification

- **2.1 Classification of the substance or mixture**
 - Classification according to Regulation (EC) No 1272/2008 (CLP-Regulation):
For products there is no obligation to classify acc. to CLP -Regulation.
The product is not classified according to the CLP regulation.
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- **2.2 Label elements**
 - Labelling according to Regulation (EC) No 1272/2008: Void
 - Hazard pictograms: Void
 - Signal word: Void
 - Hazard-determining components of labeling: Void
 - Hazard statements: Void
 - **2.3 Other hazards**
Semi-finished products from copper or copper-alloys, as offered for sale as manufactured present no health hazard to man or for the aquatic environment.
 - Results of PBT and vPvB assessment
 - PBT: Not applicable to metals
 - vPvB: Not applicable to metals.

3 Composition/information on ingredients




- **3.2 Chemical characterization: Mixtures**
- Description: Metal in compact form.
- UNS-number: C35300
- Information:
The classifications mentioned below reflect the respective pure substance and are for information only.
Copper alloys are special preparations according to Regulation (EC) 1907/2006 (REACH Regulation).
The classification of a pure substance is not applicable to its use as element of a copper alloy.

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· Components:

CAS: 7440-50-8 EINECS: 231-159-6 RTECS: GL 5325000	copper	61.0-63.0%
CAS: 7440-66-6 EINECS: 231-175-3 RTECS: ZG 8600000	zinc	balance%
CAS: 7439-92-1 EINECS: 231-100-4 RTECS: OF 7525000	lead	1.7-2.8%
CAS: 7440-38-2 EINECS: 231-148-6 RTECS: CG 0525000	arsenic  Acute Tox. 3, H301; Acute Tox. 3, H331;  Carc. 1A,  Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.02-0.15%

4 First-aid measures

- **4.1 Description of first aid measures**

- General information:

No special measures required.

First Aid information refer to any dust which is generated.

- After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact: Immediately wash with water and soap and rinse thoroughly.

- After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- After swallowing: 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.

5 Fire-fighting measures

- **5.1 Extinguishing media**

- Suitable extinguishing agents:

Non-flammable. Use fire fighting measures that suit the environment.

- **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.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures:** Not required.

- **6.2 Environmental precautions:** Not required

- **6.3 Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to item 13.

- **6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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7 Handling and storage

- **7.1 Precautions for safe handling:**
No special measures required.
Open and handle receptacle with care.
- Information about protection against explosions and fires: No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Further information about storage conditions: None.
- **7.3 Specific end use(s):** No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- **8.1 Control parameters**
- Components with limit values that require monitoring at the workplace:
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

7440-50-8 copper

PEL	Long-term value: 1* 0.1** mg/m ³ as Cu *dusts and mists **fume
REL	Long-term value: 1* 0.1** mg/m ³ as Cu *dusts and mists **fume
TLV	Long-term value: 1* 0.2** mg/m ³ *dusts and mists; **fume; as Cu

7439-92-1 lead

PEL	Long-term value: 0.05* mg/m ³ *see 29 CFR 1910.1025
REL	Long-term value: 0.05* mg/m ³ *8-hr TWA ;See PocketGuide App.C
TLV	Long-term value: 0.05* mg/m ³ *and inorganic compounds, as Pb; BEI

- Ingredients with biological limit values:

7439-92-1 lead

BEI	30 µg/100 ml Medium: blood Time: not critical Parameter: Lead
	10 µg/100 ml Medium: blood Time: not critical Parameter: Lead (women of child bearing potential)

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

1314-13-2 zinc oxide

PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction and fume
REL	Short-term value: 10** mg/m ³ Long-term value: 5 mg/m ³ Ceiling limit value: 15* mg/m ³ *dust only **fume
TLV	Short-term value: 10* mg/m ³ Long-term value: 2* mg/m ³ *as respirable fraction

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

8.2 Exposure controls

- Personal protective equipment:
- General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
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.
- 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**9.1 Information on basic physical and chemical properties**

- General Information
- Appearance:

Form:	Solid
Color:	copper yellow
Odor:	Odorless
Odor threshold:	Not determined.
- Change in condition

Melting point/Melting range:	885-910 °C (1625-1670 ° 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): 8.37 g/cm³ (69.848 lbs/g al) (Lit.)
- Solubility in / Miscibility with

Water:	Not soluble.
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- 9.2 Other information** No further relevant information available.

10 Stability and reactivity

- 10.1 Reactivity:** Not applicable.
- 10.2 Chemical stability:** Not applicable.

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- 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.

11 Toxicological information

- **11.1 Information on toxicological effects**
- Acute toxicity: Based on available data, the classification criteria are not met.

- LD/LC50 values that are relevant for classification:

7440-38-2 arsenic

Oral	LD50	763 mg/kg (rat)
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- Primary irritant effect:
 - on the skin: Based on available data, the classification criteria are not met.
 - on the eye: Based on available data, the classification criteria are not met.
- Sensitization: Based on available data, the classification criteria are not met.
- Additional toxicological information:
When used and handled according to specifications, the article does not have any harmful effects to our experience and the information provided to us.

- Carcinogenic categories

- IARC (International Agency for Research on Cancer)

7439-92-1	lead	2B
7440-38-2	arsenic	1

- NTP (National Toxicology Program)

7439-92-1	lead	R
7440-38-2	arsenic	K

- OSHA-Ca (Occupational Safety & Health Administration)

7440-38-2	arsenic
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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.
- Ecotoxicological effects:
 - Remark: Very toxic for fish
- Additional ecological information
- General notes:
For semi-finished products in copper or copper-alloys no information regarding ecology is suitable, as it is not soluble in water.
Very toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- PBT: Not applicable to metals.
- vPvB: Not applicable to metals.
- **12.6 Other adverse effects:** No further relevant information available.

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13 Disposal considerations

- **13.1 Waste treatment methods**
- Recommendation: Contact manufacturer for recycling information.

14 Transport information

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|--|-----------------|
| • 14.1 UN-Number | Void |
| • DOT, ADR, ADN, IMDG, IATA | |
| • 14.2 UN proper shipping name | Void |
| • DOT, ADR, ADN, IMDG, IATA | |
| • 14.3 Transport hazard class(es) | Void |
| • DOT, ADR, ADN, IMDG, IATA | |
| • Class | |
| • 14.4 Packing group | Void |
| • DOT, ADR, IMDG, IATA | |
| • 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 MARPOL73/78 and the IBC Code: | Not applicable. |

15 Regulatory information

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

- Sara

- Section 355 (extremely hazardous substances):

None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):

All ingredients are listed.

- TSCA (Toxic Substances Control Act):

All ingredients are listed.

- Proposition 65

- Chemicals known to cause cancer:

7439-92-1 | lead

7440-38-2 | arsenic

- 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

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- Cancerogenity categories

- EPA (Environmental Protection Agency)

7440-50-8	copper	D
7440-66-6	zinc	D, I, II
7439-92-1	lead	B2
7440-38-2	arsenic	A

- TLV (Threshold Limit Value established by ACGIH)

7439-92-1	lead	A3
7440-38-2	arsenic	A1

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

7440-38-2	arsenic	
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- Chemical safety assessment void.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific article features and shall not establish a legally valid contractual relationship

- Department issuing SDS: Department testing laboratories

- Contact:

Dr. Michael Ebner

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- Date of preparation / last revision 08/25/2017 / 8

- * Data compared to the previous version altered.