

1 Identification

- **1.1 Product identifier**
 - Trade name: **Wieland GC4**
 - **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: -
- 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	81.0-86.0%
CAS: 7439-92-1 EINECS: 231-100-4 RTECS: OF 7525000	lead	3.0-6.0%
CAS: 7440-31-5 EINECS: 231-141-8 RTECS: XP 7320000	tin	2.0-3.5%
CAS: 7440-02-0 EINECS: 231-111-4	nickel ☠ Carc. 2, H351; STOT RE 1, H372; ⚠ Skin Sens. 1, H317	0-2.0%
CAS: 7440-66-6 EINECS: 231-175-3 RTECS: ZG 8600000	zinc	7.0-9.5%

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:

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

7440-31-5 tin

PEL	Long-term value: 2 mg/m ³ metal
REL	Long-term value: 2 mg/m ³
TLV	Long-term value: 2 mg/m ³ metal

7440-02-0 nickel

PEL	Long-term value: 1 mg/m ³
REL	Long-term value: 0.015 mg/m ³ as Ni; See Pocket Guide App. A
TLV	Long-term value: 1.5* mg/m ³ elemental, *inhalable fraction

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· Ingredients with biological limit values:

7439-92-1 lead

BEI	30 µg/100 ml Medium: blood Time: not critical Parameter: Lead
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	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
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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
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TLV	Short-term value: 10* mg/m ³ Long-term value: 2* mg/m ³ *as respirable fraction
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· 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 red
Odor:	Odorless
Odor threshold:	Not determined.

· Change in condition

Melting point/Melting range:	830-1040 °C (1526-1904 °F) (Lit.)
Boiling point/Boiling range:	Undetermined.

Flash point:	Not applicable.
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|---|---|
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Density at 20 °C (68 °F): | 8.9 g/cm ³ (74.271 lbs/gal) (Lit.) |
| · Solubility in / Miscibility with Water: | Not soluble. |
| · 9.2 Other information | No further relevant information available. |

10 Stability and reactivity

- **10.1 Reactivity:** Not applicable.
- **10.2 Chemical stability:** Not applicable.
- 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.
- 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
7440-02-0	nickel	2B

- NTP (National Toxicology Program)

7439-92-1	lead	R
7440-02-0	nickel	R

- OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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: Toxic for fish

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- 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.
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.

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 | |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · 14.2 UN proper shipping name | |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es) | |
| · DOT, ADR, ADN, IMDG, IATA | |
| · Class | Void |
| · 14.4 Packing group | |
| · DOT, 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 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**
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· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

7440-50-8	copper
7440-66-6	zinc
7439-92-1	lead
7440-02-0	nickel

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

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- Proposition 65

- Chemicals known to cause cancer:

7439-92-1	lead
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7440-02-0	nickel
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- Chemicals known to cause reproductive toxicity for females:

7439-92-1	lead
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- Chemicals known to cause reproductive toxicity for males:

7439-92-1	lead
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- Chemicals known to cause developmental toxicity:

7439-92-1	lead
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- Carcinogenicity categories

- EPA (Environmental Protection Agency)

7440-50-8	copper	D
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7440-66-6	zinc	D, I, II
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7439-92-1	lead	B2
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- TLV (Threshold Limit Value established by ACGIH)

7439-92-1	lead	A3
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7440-02-0	nickel	A5
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- NIOSH-Ca (National Institute for Occupational Safety and Health)

7440-02-0	nickel
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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 08/23/2017 / 7

- * Data compared to the previous version altered.