1 Identification

- **1.1 Product identifier**
  - Trade name: **Wieland SA9**

- **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

- **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.

- **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: C66800
  - 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.
Trade name: Wieland SA9

Components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>RTECS</th>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-50-8</td>
<td>231-159-6</td>
<td>GL 5325000</td>
<td>copper</td>
<td>60.0-63.0%</td>
</tr>
<tr>
<td>7440-66-6</td>
<td>231-175-3</td>
<td>ZG 8600000</td>
<td>zinc</td>
<td>balance%</td>
</tr>
<tr>
<td>7439-96-5</td>
<td>231-105-1</td>
<td>OO 9275000</td>
<td>manganese</td>
<td>2.0-3.5%</td>
</tr>
<tr>
<td>7440-21-3</td>
<td>231-130-8</td>
<td>VW 0400000</td>
<td>silicon</td>
<td>0.50-1.5%</td>
</tr>
<tr>
<td>7439-92-1</td>
<td>231-100-4</td>
<td>OF 7525000</td>
<td>lead</td>
<td>0-0.5%</td>
</tr>
</tbody>
</table>

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 of the collected material according to regulations.

- **6.4 Reference to other sections:**
  - See Section 7 for information on safe handling.
7 Handling and storage

- **7.1 Precautions for safe handling:** No special measures required.
- 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**

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL (Long-term value)</th>
<th>REL (Long-term value)</th>
<th>TLV (Long-term value)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7440-50-8 copper</strong></td>
<td>1* 0.1** mg/m³ as Cu</td>
<td>1* 0.1** mg/m³ as Cu</td>
<td>1* 0.2** mg/m³ as Cu</td>
</tr>
<tr>
<td><strong>7439-96-5 manganese</strong></td>
<td>5 mg/m³ as Mn</td>
<td>3 mg/m³ as Mn</td>
<td>1 mg/m³ as Mn</td>
</tr>
<tr>
<td><strong>7440-21-3 silicon</strong></td>
<td>15* 5** mg/m³ *total dust **respirable fraction</td>
<td>10* 5** mg/m³ *total dust **respirable fraction</td>
<td>TLV withdrawn</td>
</tr>
<tr>
<td><strong>1314-13-2 zinc oxide</strong></td>
<td>15* 5** mg/m³ *total dust **respirable fraction and fume</td>
<td>10** mg/m³</td>
<td>15* mg/m³ *dust only **fume</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL Long-term value</th>
<th>REL Short-term value</th>
<th>TLV Short-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7440-50-8 copper</strong></td>
<td>15* 5** mg/m³ *total dust **respirable fraction and fume</td>
<td>10** mg/m³</td>
<td>10* mg/m³</td>
</tr>
<tr>
<td><strong>7439-96-5 manganese</strong></td>
<td>15* 5** mg/m³ *total dust **respirable fraction and fume</td>
<td>10** mg/m³</td>
<td>15* mg/m³ *dust only **fume</td>
</tr>
<tr>
<td><strong>7440-21-3 silicon</strong></td>
<td>10* mg/m³</td>
<td>2* mg/m³</td>
<td>2* mg/m³</td>
</tr>
</tbody>
</table>

(Contd. on page 4)
8.2 Exposure controls
- 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.
- 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.

9.1 Information on basic physical and chemical properties
- General Information
  Form: Solid
  Color: metallic-yellow
  Odor: Odorless
  Odor threshold: Not determined.
- Change in condition
  Melting point/Melting range: 813-862 °C (1495-1584 °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): 8.24 g/cm³ (68.763 lbs/gal) (Lit.)
- Solubility in 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.
### Trade name: Wieland SA9

- 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
  - NTP (National Toxicology Program)
    - 7439-92-1 lead - 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.
- **General notes**:
  For semi-finished products in copper or copper-alloys no information regarding ecology is suitable, as it is not soluble in water.
- **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

- **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 - Void
  - 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.
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):
      7440-50-8 copper
      7440-66-6 zinc
      7439-96-5 manganese
      7439-92-1 lead
    - TSCA (Toxic Substances Control Act):
      None of the ingredients is listed.
    - Proposition 65
      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

- Cancerogenuity categories
  - EPA (Environmental Protection Agency)
    7440-50-8 copper D
    7440-66-6 zinc D,I,II
    7439-96-5 manganese D
    7439-92-1 lead B2
  - TLV (Threshold Limit Value established by ACGIH)
    7439-92-1 lead A3
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.

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
  Phone (+)49 (0)731/944-3706
- Date of preparation / last revision 06/30/2017 / 6
- * Data compared to the previous version altered.