1 Identification

- **1.1 Product identifier**
  - Trade name: Wieland G66

- **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: -
  - 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.
  - Components:
    Mentioned percentages are references values.

(Contd. on page 2)
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.
  - See Section 13 for disposal information.

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

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-50-8 copper</td>
<td>Long-term value: 1* 0.1** mg/m³ as Cu</td>
<td>Long-term value: 1* 0.1** mg/m³ as Cu</td>
<td>Long-term value: 1* 0.2** mg/m³ as Cu</td>
</tr>
<tr>
<td></td>
<td>dusts and mists</td>
<td>dusts and mists</td>
<td>dusts and mists; fume; as Cu</td>
</tr>
<tr>
<td>7440-02-0 nickel</td>
<td>Long-term value: 1 mg/m³</td>
<td>Long-term value: 0.015 mg/m³ as Ni; See Pocket Guide App. A</td>
<td>Long-term value: 1.5* mg/m³ elemental; *inhalable fraction</td>
</tr>
<tr>
<td>7440-31-5 tin</td>
<td>Long-term value: 2 mg/m³ metal</td>
<td>Long-term value: 2 mg/m³</td>
<td>Long-term value: 2 mg/m³ metal</td>
</tr>
</tbody>
</table>

- 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.
    - 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

<table>
<thead>
<tr>
<th>9.1 Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form: Solid</td>
</tr>
<tr>
<td>Color: copper red</td>
</tr>
<tr>
<td>Odor: Odorless</td>
</tr>
<tr>
<td>Odor threshold: Not determined.</td>
</tr>
<tr>
<td>Change in condition</td>
</tr>
<tr>
<td>Melting point/Melting range: 965-1070 °C (1769-1958 °F) (Lit.)</td>
</tr>
<tr>
<td>Boiling point/Boiling range: Undetermined.</td>
</tr>
<tr>
<td>Flash point: Not applicable.</td>
</tr>
<tr>
<td>Danger of explosion: Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Density at 20 °C (68 °F): 9 g/cm³ (75.105 lbs/gal) (Lit.)</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water: Not soluble.</td>
</tr>
<tr>
<td>9.2 Other information No further relevant information available.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>11.1 Information on toxicological effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity: Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Primary irritant effect:</td>
</tr>
<tr>
<td>on the skin: Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>on the eye: Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Sensitization: Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Additional toxicological information:</td>
</tr>
<tr>
<td>When used and handled according to specifications, the article does not have any harmful effects to our experience and the information provided to us.</td>
</tr>
<tr>
<td>Carcinogenic categories</td>
</tr>
<tr>
<td>IARC (International Agency for Research on Cancer)</td>
</tr>
<tr>
<td>7440-02-0 nickel 2B</td>
</tr>
<tr>
<td>NTP (National Toxicology Program)</td>
</tr>
<tr>
<td>7440-02-0 nickel R</td>
</tr>
<tr>
<td>OSHA-Ca (Occupational Safety &amp; Health Administration)</td>
</tr>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>
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:
    - 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 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**
  - Sara
    - Section 355 (extremely hazardous substances):
    - None of the ingredients is listed.

  - Section 313 (Specific toxic chemical listings):
    - 7440-50-8 copper
    - 7440-02-0 nickel

(Contd. on page 6)
**Trade name:** Wieland G66

| **· TSCA (Toxic Substances Control Act):** |  
| All ingredients are listed. |
| **· Proposition 65** |  
| 7440-02-0 nickel |
| **· Chemicals known to cause cancer:** |  
| nickel |
| **· Chemicals known to cause reproductive toxicity for females:** |  
| None of the ingredients is listed. |
| **· Chemicals known to cause reproductive toxicity for males:** |  
| None of the ingredients is listed. |
| **· Chemicals known to cause developmental toxicity:** |  
| None of the ingredients is listed. |
| **· Cancerogenicy categories** |  
| 7440-50-8 copper D |
| **· TLV (Threshold Limit Value established by ACGIH)** |  
| 7440-02-0 nickel A5 |
| **· NIOSH-Ca (National Institute for Occupational Safety and Health)** |  
| 7440-02-0 nickel |
| **· 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
  Phone (+49 (0)731/944-3706
- Date of preparation / last revision 08/23/2017 / 6
- * Data compared to the previous version altered.