1 Identification

- 1.1 Product identifier
  - Trade name: Wieland GB8

- 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: C90300
  - 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.

(Contd. on page 2)
Trade name: Wieland GB8

- Components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>CAS: 7440-50-8</th>
<th>copper</th>
<th>86.0-89.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS:</td>
<td>7440-31-5</td>
<td>tin</td>
<td>7.5-9.0%</td>
</tr>
<tr>
<td>RTECS:</td>
<td>231-159-6</td>
<td>zinc</td>
<td>3.0-5.0%</td>
</tr>
<tr>
<td>CAS: 7440-66-6</td>
<td>231-175-3</td>
<td>lead</td>
<td>0-0.3%</td>
</tr>
<tr>
<td>EINECS:</td>
<td>7439-92-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTECS:</td>
<td>231-141-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>231-100-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5325000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>XP 7320000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ZG 8600000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OF 7525000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 First-aid measures

- 4.1 Description of first aid measures
  - General information:
    No special measures required.
  - After inhalation:
    Supply fresh air and to be sure call for a doctor.
  - 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.
  See Section 8 for information on personal protection equipment.
### 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:
  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.

<table>
<thead>
<tr>
<th>7440-50-8 copper</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PEL</strong> Long-term value: 1* 0.1** mg/m³</td>
<td>as Cu *dusts and mists **fume</td>
</tr>
<tr>
<td><strong>REL</strong> Long-term value: 1* 0.1** mg/m³</td>
<td>as Cu *dusts and mists **fume</td>
</tr>
<tr>
<td><strong>TLV</strong> Long-term value: 1* 0.2** mg/m³</td>
<td>as dusts and mists; **fume; as Cu</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7440-31-5 tin</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PEL</strong> Long-term value: 2 mg/m³</td>
<td>metal</td>
</tr>
<tr>
<td><strong>REL</strong> Long-term value: 2 mg/m³</td>
<td></td>
</tr>
<tr>
<td><strong>TLV</strong> Long-term value: 2 mg/m³</td>
<td>metal</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>1314-13-2 zinc oxide</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PEL</strong> Long-term value: 15* 5** mg/m³</td>
<td>*total dust **respirable fraction and fume</td>
</tr>
<tr>
<td><strong>REL</strong> Short-term value: 10** mg/m³</td>
<td></td>
</tr>
<tr>
<td><strong>LONG-TERM VALUE: 5 mg/m³</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Ceiling limit value: 15</strong> mg/m³</td>
<td>*dust only **fume</td>
</tr>
<tr>
<td><strong>TLV</strong> Short-term value: 10* mg/m³</td>
<td></td>
</tr>
<tr>
<td><em><em>LONG-TERM VALUE: 2</em> mg/m³</em>*</td>
<td></td>
</tr>
<tr>
<td>*as respirable fraction</td>
<td></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:
  - 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.
### 44.0 Protection of hands:
Protective gloves are recommended, depending upon how the semis are further processed.

### 45.0 Eye protection:
Protective goggles are recommended, depending upon how the semis are further processed.

### 46.0 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: 854-1000 °C (1569-1832 °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):** 8.7 g/cm³ (72.602 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.

#### 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.
Trade name: Wieland GB8

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
- 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

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
    - 7439-92-1 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
      - 7440-66-6 zinc D, I, II
      - 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.
  - 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 08/24/2017 / 6
- * Data compared to the previous version altered.