1 Identification

1.1 Product identifier
- Trade name: Wieland SE1

1.2 Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the preparation: Semi-finished product
- No further relevant information available.

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):
  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 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.
Trade name: Wieland SE1

See Section 13 for disposal information.

7 Handling and storage

7.1 Precautions for safe handling: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities
- Storage: None.
- Requirements to be met by storerooms and receptacles: No special requirements.

7.3 Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Long-term value: 0.1 mg/m³ as Cu</td>
</tr>
<tr>
<td>REL</td>
<td>Long-term value: 0.2 mg/m³ as Cu</td>
</tr>
<tr>
<td>TLV</td>
<td>Long-term value: 0.2 mg/m³ as Cu</td>
</tr>
</tbody>
</table>

7440-31-5 tin

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Long-term value: 2 mg/m³ metal</td>
</tr>
<tr>
<td>REL</td>
<td>Long-term value: 2 mg/m³ metal</td>
</tr>
<tr>
<td>TLV</td>
<td>Long-term value: 2 mg/m³ metal</td>
</tr>
</tbody>
</table>

1314-13-2 zinc oxide

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Long-term value: 15 mg/m³ total dust</td>
</tr>
<tr>
<td>REL</td>
<td>Short-term value: 10 mg/m³</td>
</tr>
<tr>
<td>TLV</td>
<td>Short-term value: 10 mg/m³</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.
Trade name: Wieland SE1

- 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: Metallic-yellow
      - Odor: Odorless
      - Odor threshold: Not determined.
    - Change in condition
      - Melting point/Melting range: Undetermined.
      - 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): 8.4 g/cm³ (70.098 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.
Trade name: Wieland SE1

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.

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.
## 15 Regulatory information

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

- **Sara**

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Substance(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 355 (extremely hazardous substances):</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Section 313 (Specific toxic chemical listings):</td>
<td>7440-50-8 copper</td>
</tr>
<tr>
<td></td>
<td>7440-66-6 zinc</td>
</tr>
<tr>
<td>TSCA (Toxic Substances Control Act):</td>
<td>7440-50-8 copper</td>
</tr>
<tr>
<td></td>
<td>7440-66-6 zinc</td>
</tr>
<tr>
<td></td>
<td>7440-31-5 tin</td>
</tr>
<tr>
<td></td>
<td>7439-89-6 iron</td>
</tr>
<tr>
<td>Proposition 65</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause cancer:</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for females:</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for males:</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause developmental toxicity:</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>EPA (Environmental Protection Agency)</td>
<td>7440-50-8 copper D</td>
</tr>
<tr>
<td></td>
<td>7440-66-6 zinc D, I, II</td>
</tr>
<tr>
<td>TLV (Threshold Limit Value established by ACGIH)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>NIOSH-Ca (National Institute for Occupational Safety and Health)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemical safety assessment void.</td>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

## 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 / 2
- * Data compared to the previous version altered.