1 Identification

- 1.1 Product identifier
  - Trade name: Wieland GB1
- 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 enviroment.
  - 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.

(Contd. on page 2)
Trade name: Wieland GB1

- Components:
  - CAS: 7440-50-8  
    EINECS: 231-159-6  
    RTECS: GL 5325000  
    copper  
    84.5-87.5%
  - CAS: 7440-31-5  
    EINECS: 231-141-8  
    RTECS: XP 7320000  
    tin  
    11.0-13.0%
  - CAS: 7440-02-0  
    EINECS: 231-111-4  
    RTECS: OF 7525000  
    nickel  
    1.5-2.5%
  - CAS: 7723-14-0  
    EINECS: 231-768-7  
    RTECS: TH 3495000  
    phosphorus  
    0.05-0.40%
  - CAS: 7439-92-1  
    EINECS: 231-100-4  
    RTECS: IF 7525000  
    lead  
    0-0.3%

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.
7 Handling and storage

- **7.1 Precautions for safe handling:** 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.
- **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:**

<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  *dusts and mists **fume</td>
<td>Long-term value: 1* 0.1** mg/m³  as Cu  *dusts and mists **fume</td>
<td>Long-term value: 1* 0.2** mg/m³  *dusts and mists; **fume; as Cu</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>
<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>
</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.
Trade name: Wieland GB1

- 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: 730-1010 °C (1346-1850 °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): 8.9 g/cm³ (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)
      7440-02-0 nickel 2B
      7439-92-1 lead 2B

(Contd. on page 5)
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: 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
    - 7439-92-1 lead
  - TSCA (Toxic Substances Control Act):
    - 7440-50-8 copper
    - 7440-31-5 tin
    - 7440-02-0 nickel
    - 7439-92-1 lead
  - Proposition 65
    - Chemicals known to cause cancer:
      - 7440-02-0 nickel
      - 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
      - 7439-92-1 lead B2
    - TLV (Threshold Limit Value established by ACGIH)
      - 7440-02-0 nickel A5
      - 7439-92-1 lead A3
  - 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.