1 Identification

· 1.1 Product identifier
  · Trade name: Wieland S37

· 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 S37

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.
7 Handling and storage

- **7.1 Precautions for safe handling:**
  - No special measures required.
  - Open and handle receptacle with care.
  - 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</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7440-50-8 copper</strong></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><strong>7439-96-5 manganese</strong></td>
<td>Ceiling limit value: 5 mg/m³ as Mn</td>
<td>Short-term value: 3 mg/m³ Long-term value: 1 mg/m³ fume, as Mn</td>
<td>Long-term value: 0.02* 0.1* mg/m³ *respirable **inhalable fraction as Mn</td>
</tr>
<tr>
<td><strong>7429-90-5 aluminium</strong></td>
<td>Long-term value: 15*; 5** mg/m³ *Total dust; **Respirable fraction</td>
<td>Long-term value: 10* 5** mg/m³ as Al*Total dust**Respirable/pyro powd./welding f.</td>
<td>Long-term value: 1* mg/m³ as Al; *as respirable fraction</td>
</tr>
<tr>
<td><strong>7439-92-1 lead</strong></td>
<td>Long-term value: 0.05* mg/m³ *see 29 CFR 1910.1025</td>
<td>Long-term value: 0.05* mg/m³ *8-hr TWA ;See PocketGuide App.C</td>
<td>Long-term value: 0.05* mg/m³ *and inorganic compounds, as Pb; BEI</td>
</tr>
</tbody>
</table>

(Contd. on page 4)
### 44.0 Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>Substance</th>
<th>BEI</th>
<th>Medium</th>
<th>Time</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>7439-92-1 lead</td>
<td>30 µg/100 ml</td>
<td>blood</td>
<td>not critical</td>
<td>Lead</td>
</tr>
<tr>
<td></td>
<td>10 µg/100 ml</td>
<td>blood</td>
<td>not critical</td>
<td>Lead (women of child bearing potential)</td>
</tr>
</tbody>
</table>

### 4.2 Additional Occupational Exposure Limit Values for possible hazards during processing:

<table>
<thead>
<tr>
<th>Substance</th>
<th>PEL</th>
<th>REL</th>
<th>Ceiling limit value</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1314-13-2 zinc oxide</td>
<td>Long-term value: 15* mg/m³ <strong>respirable fraction and fume</strong></td>
<td>Short-term value: 10** mg/m³</td>
<td>Ceiling limit value: 15* mg/m³ <strong>fume</strong></td>
<td>Short-term value: 10* mg/m³ Long-term value: 2* mg/m³ <strong>as respirable fraction</strong></td>
</tr>
</tbody>
</table>

*total dust **respirable fraction | Long-term value: 5 mg/m³ | Ceil | Long-term value: 5 mg/m³ |

* as respirable fraction |

### 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.
    - Store protective clothing separately.
  - 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

#### 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: 860-910 °C (1580-1670 °F) (Lit.)
    - Boiling point/Boiling range: Undetermined.
  - **Flash point:** Not applicable.
Trade name: Wieland S37

- 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 / Miscibility with Water: Not soluble.

9.2 Other information
No further relevant information available.

10 Stability and reactivity

- Reactivity: Not applicable.
- Chemical stability: Not applicable.
- Thermal decomposition / conditions to be avoided:
  No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- 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)
      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

- Toxicity
  - Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Ecotoxic effects:
- Remark: Very 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.
  Very 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.

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):
  All ingredients are listed.

- 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
**Trade name:** Wieland S37

(Contd. of page 6)

<table>
<thead>
<tr>
<th>Chemicals known to cause developmental toxicity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>7439-92-1 lead</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cancerogenity categories</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EPA (Environmental Protection Agency)</strong></td>
</tr>
<tr>
<td>7440-50-8 copper</td>
</tr>
<tr>
<td>7440-66-6 zinc</td>
</tr>
<tr>
<td>7439-96-5 manganese</td>
</tr>
<tr>
<td>7439-92-1 lead</td>
</tr>
<tr>
<td><strong>Cancerogenity categories</strong></td>
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<td><strong>EPA (Environmental Protection Agency)</strong></td>
</tr>
<tr>
<td>7440-50-8 copper D</td>
</tr>
<tr>
<td>7440-66-6 zinc D, I, II</td>
</tr>
<tr>
<td>7439-96-5 manganese D</td>
</tr>
<tr>
<td>7439-92-1 lead D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TLV (Threshold Limit Value established by ACGIH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7429-90-5 aluminium A4</td>
</tr>
<tr>
<td>7439-92-1 lead A3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NIOSH-Ca (National Institute for Occupational Safety and Health)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemical safety assessment void.</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 / 7
- * Data compared to the previous version altered.