# 1 Identification

- **1.1 Product identifier**
  - Trade name: **Wieland GA1**

- **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

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# 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.

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# 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 GA1

Components:

<table>
<thead>
<tr>
<th>CAS: 7440-50-8</th>
<th>copper</th>
<th>87.0-89.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-159-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTECS: GL 5325000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 7440-31-5</th>
<th>tin</th>
<th>10.0-11.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-141-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTECS: XP 7320000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 7723-14-0</th>
<th>phosphorus</th>
<th>0.5-1.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-768-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTECS: TH 3495000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 7439-92-1</th>
<th>lead</th>
<th>0-0.25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-100-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTECS: 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.
- 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 GA1

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:**
    - 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.

### 7440-50-8 copper

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

### 7440-31-5 tin

<table>
<thead>
<tr>
<th></th>
<th>Long-term value: 2 mg/m³ metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Long-term value: 2 mg/m³</td>
</tr>
<tr>
<td>REL</td>
<td>Long-term value: 2 mg/m³</td>
</tr>
<tr>
<td>TLV</td>
<td>Long-term value: 2 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.
  - 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: copper red
    - Odor: Odorless
    - Odor threshold: Not determined.
  - Change in condition
    - Melting point/Melting range: 840-880 °C (1544-1616 °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.
- 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)
      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

- 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.
  - 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
      7439-92-1 lead
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- TSCA (Toxic Substances Control Act):
  - 7440-50-8 copper
  - 7440-31-5 tin
  - 7439-92-1 lead

- 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
    - 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 / 5
- * Data compared to the previous version altered.