1 Identification

- **Product identifier**
  - **Trade name:** Wieland Z24
- **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

---

2 Hazard(s) identification

- **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.

---

3 Composition/information on ingredients

- **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.**
      - **CAS:** 7440-50-8
      - **EINECS:** 231-159-6
      - **RTECS:** GL 5325000
      - **copper**
      - **58%**

(Contd. on page 2)
Trade name: Wieland Z24

<table>
<thead>
<tr>
<th>CAS: 7440-66-6</th>
<th>zinc</th>
<th>balance%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-175-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTECS: ZG 8600000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 7439-92-1</th>
<th>lead</th>
<th>0.5%</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

- **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.
  - **Information for doctor:**
    - Most important symptoms and effects, both acute and delayed:
      - No further relevant information available.
    - Indication of any immediate medical attention and special treatment needed:
      - No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
  - Suitable extinguishing agents:
    - Non-flammable. Use fire fighting measures that suit the environment.
  - **Special hazards arising from the substance or mixture**
    - No further relevant information available.
  - **Advice for firefighters**
    - Protective equipment: No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** Not required
- **Methods and material for containment and cleaning up:**
  - Dispose of the collected material according to regulations.
- **Reference to other sections:**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
  - Precautions for safe handling: No special measures required.
  - Information about protection against explosions and fires: No special measures required.
8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Substance</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>1314-13-2 zinc oxide</td>
<td>Long-term value: 15* 5** mg/m³ *total dust **respirable fraction and fume</td>
<td>Short-term value: C 15* 10** mg/m³</td>
<td>Long-term value: 5* 5** mg/m³ *dust only **fume</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 10* mg/m³</td>
<td>Long-term value: 2* mg/m³ *as respirable fraction</td>
<td></td>
</tr>
</tbody>
</table>

- Additional information: The lists that were valid during the creation were used as basis.

- 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

- Information on basic physical and chemical properties
  - General Information
    - Form: Solid
    - Color: copper yellow
    - Odor: Odorless
### 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:**
    - **Primary irritant effect:**
      - on the skin: No irritant effect.
      - on the eye: No irritating effect.
      - Sensitization: No sensitizing effects known.
      - 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

### 12 Ecological information

- **Toxicity**
  - Aquatic toxicity: No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems**
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
38.0.6 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.
· Results of PBT and vPvB assessment
  · PBT: Not applicable to metals.
  · vPvB: Not applicable to metals.
· Other adverse effects: No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
  Recommendation: Contact manufacturer for recycling information.

### 14 Transport information

<table>
<thead>
<tr>
<th><strong>UN-Number</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT, ADR, ADN, IMDG, IATA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>UN proper shipping name</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT, ADR, ADN, IMDG, IATA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Transport hazard class(es)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT, ADR, ADN, IMDG, IATA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Packing group</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT, ADR, IMDG, IATA</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Environmental hazards:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine pollutant:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Special precautions for user:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</td>
</tr>
</tbody>
</table>

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  · Sara

<table>
<thead>
<tr>
<th><strong>Section 355 (extremely hazardous substances):</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Section 313 (Specific toxic chemical listings):</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>All ingredients are listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TSCA (Toxic Substances Control Act):</strong></th>
</tr>
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<tbody>
<tr>
<td>All ingredients are listed.</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Proposition 65</strong></th>
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</table>

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

<table>
<thead>
<tr>
<th><strong>Chemicals known to cause reproductive toxicity for females:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>7439-92-1 lead</td>
</tr>
</tbody>
</table>
### Trade name: Wieland Z24

#### 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.

- **OSHA-Ca (Occupational Safety & Health Administration)**
  - None of the ingredients is listed.

- Chemical safety assessment void.

### 16 Other information

- **Department issuing MSDS:** Department testing laboratories
- **Contact:**
  - Dr. Michael Ebner
  - Phone (+)49 (0)731/944-3706
- * Data compared to the previous version altered.