1 Identification

1.1 Product identifier
- Trade name: Wieland U35

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 Corporate EHS and Standardization Affairs
  stefan.priggemeyer@wieland.com
- 1.4 Emergency telephone number:
  Factory security offices
  Phone: +49 (0) 731-944-2794

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.

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 U35

- Components:

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

<table>
<thead>
<tr>
<th>CAS: 7429-90-5</th>
<th>aluminium</th>
<th>8.5-11.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-072-3</td>
<td>RTECS: BD 0330000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 7440-02-0</th>
<th>nickel</th>
<th>4.0-6.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-111-4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 7439-96-5</th>
<th>manganese</th>
<th>0-1.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-105-1</td>
<td>RTECS: OO 9275000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 7439-89-6</th>
<th>iron</th>
<th>3.0-5.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-096-4</td>
<td>RTECS: NO 4565500</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.

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**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.
    - Further information about storage conditions:
      - Keep receptacle tightly sealed.
      - Store in cool, dry conditions in well sealed receptacles.
- **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>Substance</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Copper</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 1 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as Cu</td>
<td>*dusts and mists**fume</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 1 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as Cu</td>
<td>*dusts and mists**fume</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 1 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as Cu</td>
<td>*dusts and mists**fume</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aluminium</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 10 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as Al</td>
<td>Total dust**Respirable fraction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 10 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as Al</td>
<td>Total dust**Respirable/powd./welding f.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 1 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as Al</td>
<td>as respirable fraction</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nickel</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 1 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as Ni</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 0.015 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as Ni</td>
<td>See Pocket Guide App. A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 1.5 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as Ni</td>
<td>elemental, *inhalable fraction</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Manganese</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ceiling limit value: 5 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as Mn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term value: 3 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 1 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>fume, as Mn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 0.02 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as Mn; *respirable **inhalable fraction</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Additional information: The lists that were valid during the creation were used as basis.*
Trade name: Wieland U35

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.
- 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: 1050-1080 °C (1922-1976 °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): 7.45 g/cm³ (62.17025 lbs /gal) (Lit.)

- Solubility in / Miscibility with
  - Water: Not soluble.
  - VOC content: 0.00 %

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.
Trade name: Wieland U35

- 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
  - NTP (National Toxicology Program)
    7440-02-0 nickel 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.
- 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 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):
    - 7440-50-8 copper
    - 7429-90-5 aluminium
    - 7440-02-0 nickel
    - 7439-96-5 manganese
  - TSCA (Toxic Substances Control Act):
    All ingredients are listed.
  - Proposition 65
    - Chemicals known to cause cancer:
      - 7440-02-0 nickel
    - Chemicals known to cause reproductive toxicity for females:
      None of the ingredients is listed.
    - Chemicals known to cause reproductive toxicity for males:
      None of the ingredients is listed.
    - Chemicals known to cause developmental toxicity:
      None of the ingredients is listed.
  - Cancerogenity categories
    - EPA (Environmental Protection Agency)
      - 7440-50-8 copper D
      - 7439-96-5 manganese D
    - TLV (Threshold Limit Value established by ACGIH)
      - 7429-90-5 aluminium A4
      - 7440-02-0 nickel A5
    - 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 Corporate EHS and Standardization Affairs
### Trade name: Wieland U35

- **Contact:**
  - Dr. Stefan Priggemeyer
  - Phone (+)49 (0)731/944-2794
- **Date of preparation / last revision:** 02/05/2018 / 2
- * Data compared to the previous version altered.