1 Identification

- **1.1 Product identifier**
  - Trade name: **Wieland FX9**

- **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):
    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: C66950
  - 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.
Trade name: Wieland FX9

- **Components:**
  - CAS: 7440-50-8 EINECS: 231-159-6 RTECS: GL 5325000 copper 50-100%
  - CAS: 7439-96-5 EINECS: 231-105-1 RTECS: OO 9275000 manganese 14-15%
  - CAS: 7429-90-5 EINECS: 231-072-3 RTECS: BD 0330000 aluminium 1.0-1.5%
  - CAS: 7440-66-6 EINECS: 231-175-3 RTECS: ZG 8600000 zinc 14.0-15.0%

### 4 First-aid measures

- **4.1 Description of first aid measures**
  - **General information:**
    No special measures required.
  - **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.
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

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL Long-term value:</th>
<th>REL Short-term value:</th>
<th>TLV Long-term value:</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-50-8 copper</td>
<td>1* 0.1** mg/m³ as Cu</td>
<td>1* 0.1** mg/m³ as Cu</td>
<td>1* 0.2** mg/m³ as Cu</td>
</tr>
<tr>
<td></td>
<td>dusts and mists **fume</td>
<td>dusts and mists **fume</td>
<td>dusts and mists **fume</td>
</tr>
<tr>
<td>7439-96-5 manganese</td>
<td>Ceiling limit value: 5 mg/m³ as Mn</td>
<td>3 mg/m³ as Mn</td>
<td>0.02* 0.1* mg/m³ as Mn</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 1 mg/m³ fume, as Mn</td>
<td>1 mg/m³ fume, as Mn</td>
<td>1 mg/m³ as Mn</td>
</tr>
<tr>
<td>7429-90-5 aluminium</td>
<td>Long-term value: 15* 5** mg/m³ as Al</td>
<td>10* 5** mg/m³ as Al</td>
<td>2* mg/m³ as Al</td>
</tr>
<tr>
<td></td>
<td>Total dust; **Respirable fraction and fume</td>
<td>Total dust; **Respirable/pyro powd./welding f.</td>
<td>as Al; *as respirable fraction</td>
</tr>
<tr>
<td>1314-13-2 zinc oxide</td>
<td>Long-term value: 15* 5** mg/m³ total dust</td>
<td>10** mg/m³</td>
<td>10* mg/m³</td>
</tr>
<tr>
<td></td>
<td>**respirable fraction and fume</td>
<td>Long-term value: 5 mg/m³</td>
<td>Long-term value: 2* mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling limit value: 15* mg/m³ *dust only **fume</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short-term value: 10** mg/m³</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 4)
9 Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
  - General Information
  - Appearance:
    - Form: Solid
    - Color: silver
  - Odor: Odorless
  - Odor threshold: Not determined.
  - Change in condition
    - Melting point/Melting range: 839-894 °C (1542-1641 °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): 8.03 g/cm³ (67.01 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.
### 44. 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)**
  - None of the ingredients is listed.
- **NTP (National Toxicology Program)**
  - None of the ingredients is listed.
- **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.
- Ecotoxicological effects:
  - Remark: 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.
    - 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
- Class
  - Void

#### 14.4 Packing group
- DOT, ADR, IMDG, IATA
  - Void
Trade name: Wieland FX9

### 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: None of the ingredients is listed.
      - 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
      - 7440-66-6 zinc D, I, II
      - 7439-96-5 manganese D
    - TLV (Threshold Limit Value established by ACGIH)
      - 7429-90-5 aluminium A4
    - 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 08/23/2017 / 7
- * Data compared to the previous version altered.