1 Identification

- **1.1 Product identifier**
  - Trade name: *Wieland F12*

- **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 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.
  - Components:
    Mentioned percentages are references values.

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| CAS: 7440-50-8 | copper | balance% |
| CAS: 7439-96-5 | manganese | 12% |
| CAS: 7440-02-0 | nickel | 2% |

**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 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.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

**7 Handling and storage**

- **7.1 Precautions for safe handling**:
  - No special measures required.
  - Information about protection against explosions and fires: No special measures required.
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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>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 as dusts and mists; **fume; as Cu</td>
</tr>
<tr>
<td>7439-96-5 manganese</td>
<td>Ceiling limit value: 5 mg/m³ as Mn</td>
<td>Short-term value: 3 mg/m³ fume, as Mn</td>
<td>Long-term value: 0.02* 0.1* mg/m³ as Mn; *respirable **inhalable fraction</td>
</tr>
<tr>
<td>7440-02-0 nickel</td>
<td>Long-term value: 1 mg/m³ as Ni; See Pocket Guide App. A</td>
<td>Long-term value: 0.015 mg/m³ as Ni; See Pocket Guide App. A</td>
<td>Long-term value: 1.5* mg/m³ elemental, *inhalable fraction</td>
</tr>
</tbody>
</table>

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

- Additional information: No further relevant information available.

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: silver
  - Odor: Odorless
  - Odor threshold: Not determined.

  - Change in condition
    - Melting point/Melting range: 960 °C (1760 °F) (Lit.)
    - Boiling point/Boiling range: 1962 °C (3564 °F)

  - Flash point: Not applicable.

  - Danger of explosion: Product does not present an explosion hazard.

  - Density at 20 °C (68 °F): 8.4 g/cm³ (70.098 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)
        - 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):
      All ingredients are listed.
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- **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.
- **EPA (Environmental Protection Agency)**
  - 7440-50-8 copper
  - 7439-96-5 manganese
- **TLV (Threshold Limit Value established by ACGIH)**
  - 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 testing laboratories
- **Contact:**
  - Dr. Michael Ebner
  - Phone (+49 (0)731/944-3706
- **Date of preparation / last revision:** 08/23/2017 / 2
- **Data compared to the previous version altered.**