1 Identification

- 1.1 Product identifier
  - Trade name: **Wieland SC5**

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

(Contd. on page 2)
Trade name: Wieland SC5

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**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.
44.0 · 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.
- 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</td>
<td>Same as PEL</td>
<td>Same as PEL</td>
</tr>
<tr>
<td>7429-90-5 aluminium</td>
<td>Long-term value: 15*; 5** mg/m³ Total dust; ** Respirable fraction</td>
<td>Same as PEL</td>
<td>Same as PEL</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 Long-term value: 1 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</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>
44.0

· Additional Occupational Exposure Limit Values for possible hazards during processing:

<table>
<thead>
<tr>
<th>1314-13-2 zinc oxide</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL Long-term value: 15* 5** mg/m³</td>
</tr>
<tr>
<td>*total dust **respirable fraction and fume</td>
</tr>
<tr>
<td>REL Short-term value: 10** mg/m³</td>
</tr>
<tr>
<td>Long-term value: 5 mg/m³</td>
</tr>
<tr>
<td>Ceiling limit value: 15* mg/m³</td>
</tr>
<tr>
<td>*dust only **fume</td>
</tr>
<tr>
<td>TLV Short-term value: 10* mg/m³</td>
</tr>
<tr>
<td>Long-term value: 2* mg/m³</td>
</tr>
<tr>
<td>*as respirable fraction</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:
  - 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: 880-995 °C (1616-1823 °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): 7.78 g/cm³ (64.924 lbs/g al) (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.
Trade name: Wieland SC5

- 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.
  - 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

<table>
<thead>
<tr>
<th>14.1 UN-Number</th>
<th>DOT, ADR, ADN, IMDG, IATA</th>
<th>Void</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>DOT, ADR, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>14.5 Environmental hazards:</td>
<td>Marine pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions for user:</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</td>
<td>Not applicable.</td>
<td></td>
</tr>
</tbody>
</table>

# 15 Regulatory information

<table>
<thead>
<tr>
<th>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</th>
<th>Sara</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 355 (extremely hazardous substances):</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Section 313 (Specific toxic chemical listings):</td>
<td></td>
</tr>
<tr>
<td>7440-50-8 copper</td>
<td></td>
</tr>
<tr>
<td>7440-66-6 zinc</td>
<td></td>
</tr>
<tr>
<td>7429-90-5 aluminium</td>
<td></td>
</tr>
<tr>
<td>7439-96-5 manganese</td>
<td></td>
</tr>
<tr>
<td>7440-02-0 nickel</td>
<td></td>
</tr>
<tr>
<td>TSCA (Toxic Substances Control Act):</td>
<td>All ingredients are listed.</td>
</tr>
<tr>
<td>Proposition 65</td>
<td></td>
</tr>
<tr>
<td>Chemicals known to cause cancer:</td>
<td>nickle</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for females:</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for males:</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause developmental toxicity:</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Cancerogenity categories</td>
<td>EPA (Environmental Protection Agency)</td>
</tr>
<tr>
<td>7440-50-8 copper</td>
<td>D</td>
</tr>
<tr>
<td>7440-66-6 zinc</td>
<td>D, I, II</td>
</tr>
<tr>
<td>7439-96-5 manganese</td>
<td>D</td>
</tr>
</tbody>
</table>
Trade name: Wieland SC5

44.0

· 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 testing laboratories
· Contact:
  Dr. Michael Ebner
  Phone (+)49 (0)731/944-3706
· Date of preparation / last revision 08/24/2017 / 7
· * Data compared to the previous version altered.