1 Identification

· 1.1 Product identifier
  · Trade name: Wieland SB7

· 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 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: -
  · 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.
Trade name: Wieland SB7

| CAS: 7440-50-8 | copper | 57% |
| EINECS: 231-159-6 |  |
| RTECS: GL 5325000 |  |

| CAS: 7440-02-0 | nickel | 2% |
| EINECS: 231-111-4 |  |
| RTECS: GL 5325000 |  |

| CAS: 7439-98-5 | manganese | 2% |
| EINECS: 231-105-1 |  |
| RTECS: OO 9275000 |  |

| CAS: 7439-92-1 | lead | 1% |
| EINECS: 231-100-4 |  |
| RTECS: OF 7525000 |  |

| CAS: 7440-21-3 | silicon | 1% |
| EINECS: 231-130-8 |  |
| RTECS: VW 0400000 |  |

| CAS: 7440-66-6 | zinc | balance% |
| EINECS: 231-175-3 |  |
| RTECS: ZG 8600000 |  |

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.

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.
Trade name: Wieland SB7

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.
Open and handle receptacle with care.
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>Component</th>
<th>Limit Value</th>
<th>Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-50-8 copper</td>
<td>PEL Long-term value: 1* 0.1** mg/m³ as Cu</td>
<td>dusts and mists</td>
<td>fume</td>
</tr>
<tr>
<td>REL Long-term value: 1* 0.1** mg/m³ as Cu</td>
<td>dusts and mists</td>
<td>fume</td>
<td></td>
</tr>
<tr>
<td>TLV Long-term value: 1* 0.2** mg/m³</td>
<td>dusts and mists</td>
<td>fume; as Cu</td>
<td></td>
</tr>
<tr>
<td>7440-02-0 nickel</td>
<td>PEL Long-term value: 0.015 mg/m³</td>
<td>as Ni</td>
<td>See Pocket Guide App. A</td>
</tr>
<tr>
<td>REL Long-term value: 1 mg/m³</td>
<td>as Ni; See Pocket Guide App. A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLV Long-term value: 1.5* mg/m³</td>
<td>elemental</td>
<td>*respirable **inhalable fraction</td>
<td></td>
</tr>
<tr>
<td>7439-96-5 manganese</td>
<td>PEL Ceiling limit value: 5 mg/m³</td>
<td>as Mn</td>
<td></td>
</tr>
<tr>
<td>REL Short-term value: 3 mg/m³</td>
<td>fume, as Mn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term value: 1 mg/m³</td>
<td>fume, as Mn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLV Long-term value: 0.02* 0.1* mg/m³</td>
<td>fume, as Mn; *respirable **inhalable fraction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7439-92-1 lead</td>
<td>PEL Long-term value: 0.05* mg/m³</td>
<td>*see 29 CFR 1910.1025</td>
<td></td>
</tr>
<tr>
<td>REL Long-term value: 0.05* mg/m³</td>
<td>*8-hr TWA; See PocketGuide App.C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLV Long-term value: 0.05* mg/m³</td>
<td>*and inorganic compounds, as Pb; BEI</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 4)
Trade name: Wieland SB7

### 7440-21-3 silicon

<table>
<thead>
<tr>
<th></th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Long-term value: 15* 5** mg/m³</td>
<td>Long-term value: 10* 5** mg/m³</td>
<td>TLV withdrawn</td>
</tr>
<tr>
<td></td>
<td>*total dust **respirable fraction</td>
<td>*total dust **respirable fraction</td>
<td></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.
  - Store protective clothing separately.
  - 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
Trade name: Wieland SB7

- Odor: Odorless
- Odor threshold: Not determined.
- Change in condition
  Melting point/Melting range: 850-890 °C (1562-1634 °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): 8.28 g/cm³ (69.097 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
      7439-92-1 lead 2B
    - NTP (National Toxicology Program)
      7440-02-0 nickel R
      7439-92-1 lead 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: Very 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.
  Very 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
  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
  7440-66-6 zinc
  7440-02-0 nickel
  7439-96-5 manganese

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Trade name: Wieland SB7

- TSCA (Toxic Substances Control Act):
  - All ingredients are listed.
- Proposition 65
- Chemicals known to cause cancer:
  - 7440-02-0 nickel
  - 7439-92-1 lead
- Chemicals known to cause reproductive toxicity for females:
  - 7439-92-1 lead
- 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
    - 7439-96-5 manganese D
    - 7439-92-1 lead B2
  - TLV (Threshold Limit Value established by ACGIH)
    - 7440-02-0 nickel A5
    - 7439-92-1 lead A3
  - 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.