1 Identification

· 1.1 Product identifier
  · Trade name: Wieland A23

· 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 aluminium or aluminium-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.
  · Information:
    The classifications mentioned below reflect the respective pure substance and are for information
    only.
    Aluminium 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 aluminium alloy.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS: 7429-90-5</th>
<th>EINECS: 231-072-3</th>
<th>RTECS: BD 03300000</th>
<th>balance%</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 2)
4 First-aid measures

- 4.1 Description of first aid measures
  - General information:
    No special measures required.
  - 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:
    The semi-finished product is not combustible in the form in which it is supplied.
    A fire caused by aluminium powder and swarf must only be tackled with dry sand or Class D fire extinguishing agents approved for this purpose.

- 5.2 Special hazards arising from the substance or mixture
  No further relevant information available.

- 5.3 Advice for firefighters
  - Protective equipment:
    If necessary, protective clothing and respiratory protection masks should be worn.
    The local fire brigade can advise you on risks and fire fighting.

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.
  See Section 13 for disposal information.

7 Handling and storage

- 7.1 Precautions for safe handling:
  No special measures required.
Trade name: Wieland A23

- 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
- Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>7429-90-5 aluminium</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL Long-term value: 15*; 5** mg/m³</td>
</tr>
<tr>
<td>REL Long-term value: 10* 5** mg/m³</td>
</tr>
<tr>
<td>TLV Long-term value: 1* mg/m³</td>
</tr>
</tbody>
</table>

*Total dust; ** Respirable fraction
-as Al Total dust**Respirable/pyro powd./welding f.
-as Al; *as respirable fraction

- 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:
    - 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: grey to silvery grey
      - Odor: Odorless
      - Odor threshold: Not determined.
    - Change in condition
      - Melting point/Melting range: Undetermined.
      - 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): 2.7 g/cm³ (22.532 lbs/gal) (Lit.)
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)
      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.
- **Additional ecological information**
  - General notes:
    Semi-finished articles from aluminium and aluminium-alloy are 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: 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):
  7429-90-5 aluminium
  All ingredients are listed.

- TSCA (Toxic Substances Control Act):
  All ingredients are listed.

- Proposition 65
  None of the ingredients is listed.

- 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)
  None of the ingredients is listed.
Trade name: Wieland A23

44.0 · 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 09/08/2017 / 1
- * Data compared to the previous version altered.