1. Chemicals and Identification

1.1 products validation

product name: Sn99Ag0.3Cu0.7

descriptions: lead-free solder wire

identifying information: unknown

1.2 recommended and restrictions on use

1.2.1 recommended: soldering for electronic parts and components

1.2.2 restrictions: unknown

1.3 Supplier information

Manufacturer: Wentronic GmbH  (811)

Address: Pillmannstr. 12

Mail box: D-38112 Braunschweig

TEL: +49 (0) 531/21058-0

FAX: +49 (0) 531/21058-20

1.4 Emergency calls

+49 (0) 531/21058-0

Hours of Operation: 8:00 am to 17:00 pm Monday to Friday

2. Hazards summarizing

2.1 classification of substances and mixture

This product is not classified according to CLP

2.2 Label element

GHS label elements according(EC) No.1272/2008: Not applicable

Hazard pictograms: Not applicable

Signal word: Not applicable

Hazard statement: Not applicable

Additional information: Contains rosin. Can cause allergic reactions. Safety data sheet available on request.

2.3 Other dangers

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

Accident prevention

Washing hands before and after handling.

Don't eat and drink when soldering.

wear gloves/goggles/face guard.
Accident response

After swallowing, induce vomiting if person is conscious, seek medical help.
After skin contact, immediately wash with soap and rinse.
After inhalation: supply fresh air, keep breathing smooth.
Of fire, use dry chemical, carbon dioxide, sandy soil.

Storage

Stored in dry shade

Disposal

According to local regulations

---

3. composition information

<table>
<thead>
<tr>
<th>material or mixture:</th>
<th>mixture</th>
</tr>
</thead>
</table>

Composition:

<table>
<thead>
<tr>
<th>chemical name</th>
<th>CAS</th>
<th>(%) content</th>
</tr>
</thead>
<tbody>
<tr>
<td>tin</td>
<td>7440-31-5</td>
<td>rest</td>
</tr>
<tr>
<td>silver</td>
<td>7440-22-4</td>
<td>0.2-0.4</td>
</tr>
<tr>
<td>copper</td>
<td>7440-50-8</td>
<td>0.5-0.9</td>
</tr>
<tr>
<td>Partially hydrogenated rosin</td>
<td>65997-06-0</td>
<td>≤2.5</td>
</tr>
</tbody>
</table>

---

4. first-aid measures

4.1 summarize

inhalation
Supply fresh air, keep breathing smooth. If difficult in breath, oxygen; if respiratory arrest, artificial respiration then hospitalize.

skin contact
Immediately wash with soap and rinse

eye contact
Opened eye lip, Rinse under running water, see doctor.

ingestion
If person is conscious, induce vomiting, see medical help.

4.2 acute and late effects

Inhalation may damage respiratory tract

4.3 First-aid personnel protection

Let medical staffs know involved matter, to take measures to protect themselves.

4.4 Special tips for doctor

Provide general measures, according to the treatment of symptoms

---

5. fire-fighting measures

5.1 out-fire method and extinguishing agent

Dry chemical, carbon dioxide, sandy soil

improper

Once-through water

5.2 special risk

Heated to break down, or under the condition of fire, will release carbon monoxide, carbon dioxide, aliphatic aldehydes.

---

6. Accidental release measure

6.1 personal precautions

Ensure adequate ventilation, Avoiding contact with eye and skin, and inhalation

6.2 environmental precautions

Do not allow product to reach sewage or any water course

6.3 Leakage take in and cleaning method

No leak

6.4 Secondary hazard prevention measures

No special advice.
7. handling and storage

7.1 handling

- technical measures: No special advice.
- partial or full ventilation: Adequate ventilation
- precautionary measures: Develop healthy habit, avoid contact with skin and eyes. Washing after handling, equipped personal protection device. Washing hands and avoiding inhalation.
- operation instruction: Introduce personal protection from SDS part 8.

7.2 safe storage

- technical measures: Far away from fire source, strong acid and alkali
- condition: Dry and cool space
- should be away: strong acid and alkali
- packing materials: no special advice

8. contact controls and personal protection

8.1 contact controls

- 8.1.1 allowed concentration: unknown
- 8.1.2 Eng control way: According to good industrial hygiene and safety practice, wash hands after handling or in break.

8.2 personal protection device

- respiratory system protection: Avoid inhalation of steam, pls wear mask
- eye protection: May flash or contact eyes, pls wear glass
- skin and body protection: pls in anti-static overalls
- sanitary measures: Before break and after handling washing hands immediately. Operation based on good industrial hygiene and safety practice.

9. physical and chemical properties

9.1 general information

- apperance: slivery solid
- physical state: solid
- shape: solid wire
- smell: tasteless
- PH value: unknown
- melting and freezing point: 217/227°C
- boiling point, initial boiling point and range: unknown
- flash point: unknown
- autoignition temperature: unknown
- (%) : combustion limits-floor level: unknown
- (%) : upper level: unknown
- (%) : explosion limits-floor level: unknown
- (%) : explosion limits-upper level: unknown
- density: 7.3g/cm³ (20°C)
- solubleness: insoluble in water
### 9.2 other dates

<table>
<thead>
<tr>
<th>Property</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>solubility</td>
<td>unknown</td>
</tr>
<tr>
<td>smell threshold value</td>
<td>unknown</td>
</tr>
<tr>
<td>evaporation rate</td>
<td>unknown</td>
</tr>
<tr>
<td>ignitability (solid, gas)</td>
<td>unknown</td>
</tr>
<tr>
<td>surface tension</td>
<td>unknown</td>
</tr>
<tr>
<td>light temperature</td>
<td>unknown</td>
</tr>
<tr>
<td>viscosity</td>
<td>unknown</td>
</tr>
<tr>
<td>molecular formula</td>
<td>unknown</td>
</tr>
<tr>
<td>molecular weight</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

### 10. stability and reactivity

<table>
<thead>
<tr>
<th>Section</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1 stability</td>
<td>Under the condition of normal operation and storage stability</td>
</tr>
<tr>
<td>10.2 The possibility of risk response</td>
<td>No hazardous reaction under normal use</td>
</tr>
<tr>
<td>10.3 should be avoided</td>
<td>High temperature</td>
</tr>
<tr>
<td>10.4 incompatible substances</td>
<td>Strong acid/alkali</td>
</tr>
<tr>
<td>10.5 harmful decomposition products</td>
<td>Carbonic oxide, carbon dioxide</td>
</tr>
</tbody>
</table>

### 11. toxicological information

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.1 Toxicokinetics, metabolism and distribution</td>
<td>unknown</td>
</tr>
<tr>
<td>11.2 acute toxicity</td>
<td></td>
</tr>
<tr>
<td>LD50; per oral, rat</td>
<td>10mg/kg (IUCLID)</td>
</tr>
<tr>
<td>LD50; per skin, hare</td>
<td>unknown</td>
</tr>
<tr>
<td>LC50; inhalation, rat</td>
<td>40000 ppm 4 hr. (RTECS)</td>
</tr>
<tr>
<td>skin irritation or corrosion</td>
<td>unclassified</td>
</tr>
<tr>
<td>eye irritation or corrosion</td>
<td>unclassified</td>
</tr>
<tr>
<td>respiration or skin sensibility</td>
<td>unclassified</td>
</tr>
<tr>
<td>germ cell mutagenicity</td>
<td>unclassified</td>
</tr>
<tr>
<td>carcinogenicity</td>
<td>unclassified</td>
</tr>
<tr>
<td>reproduction toxicity</td>
<td>unclassified</td>
</tr>
<tr>
<td>Specific target organ system toxicity-</td>
<td>unclassified</td>
</tr>
<tr>
<td>One-off contact</td>
<td></td>
</tr>
<tr>
<td>Specific target organ system toxicity-</td>
<td>unclassified</td>
</tr>
<tr>
<td>Repeating contact</td>
<td></td>
</tr>
<tr>
<td>inhalation risk</td>
<td>Unclassified</td>
</tr>
</tbody>
</table>

### 12. ecology information

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1 ecotoxicity</td>
<td></td>
</tr>
<tr>
<td>fish</td>
<td>unknown</td>
</tr>
<tr>
<td>daphnia</td>
<td>unknown</td>
</tr>
</tbody>
</table>
12. algae unknown
   12.2 durability and degradability unknown
   12.3 possible biological accumulation unknown
   12.4 mobility in soil unknown
   12.5 other harmful effects unknown

13. abandon dispose
13.1 residual waste According to local regulation
13.2 polluted package unknown
13. local disposal regulation unknown

14. transport information

<table>
<thead>
<tr>
<th></th>
<th>(ADR/RID) road transportation</th>
<th>(IMDG) ocean carriage</th>
<th>(ICAO/IATA) air transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN dangerous cargos No.</td>
<td>unknown</td>
<td>unknown</td>
<td>unknown</td>
</tr>
<tr>
<td>UN carriage name</td>
<td>unknown</td>
<td>unknown</td>
<td>unknown</td>
</tr>
<tr>
<td>UN perniciousness classify</td>
<td>unknown</td>
<td>unknown</td>
<td>unknown</td>
</tr>
<tr>
<td>packing group</td>
<td>unknown</td>
<td>unknown</td>
<td>unknown</td>
</tr>
<tr>
<td>marine pollutant</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Special precautionary measures</td>
<td>See 2.2</td>
<td>See 2.2</td>
<td>See 2.2</td>
</tr>
</tbody>
</table>

15. regulation information

15.1 special regulation/legislation of safety, health and environmental for materials and mixtures
   if recorded by chemical catalogues of other countries
   IECSC: No recorded
   EINECS: No recorded
   EPA TSCA: No recorded
   DSL/NDSL: No recorded
   GB12268-2012: hazardous articles list No recorded

Below laws, regulations and standards, make relevant stipulation for safe handling, storage, transportation, loading and unloading, classification and mark of chemicals.
the production safety law of the people's republic of china
the occupational disease prevention law of the people's republic of china
the environmental protection law of the people's republic of china
Hazardous chemical materials safety management regulation
Safety production license
15.2 Downstream consumption attention
Dispose should be accord with relevant law and regulation

16. other informations

16.1 change explain
According to standard GB/T16483-2008 <the chemical safety date sheet content and project order>, revised the former version SDS

16.2 training suggestion: No

16.3 detailed information
All information based on our current date, the SDS (the chemical safety date sheet) is only for this product.

16.4 reader attention
Owner of enterprise can only be used as beneficial supplement of other information obtained, and should be judged to this data properly. Be sure of moderate use for this product, guarantee health and safety of the workers. This data does not provide a guarantee, if there is any use behavior which violate this SDS or used with other products and programs, the consequence shall be borne by the users themselves.

16.5 abbr.
ADR: About international transport of dangerous goods road European protocol
IMDG: International maritime transport of dangerous goods rules.
EINECS: European Inventory of Existing Chemical Substance
IATA: International Air Transport Association
ICAO-TI: (ICAO) International Civil Aviation Organization
CAS: chemical abstracts No.
LC50: lethal concentration 50%
EC50: effect concentration 50%
LD50: lethal dose of 50%

The materials safety date sheet written based on optimum information of security and proper usage. But, we can't guarantee the timeliness and other express or hint information. To these data, our company do not bear any duty from the employ. The user should confirm the best information for their special usage after own research. Before use this product, every user should read this date carefully. If need more information for correct evaluation, pls contact with our company.