1. Name of product, characterization and company name

Information on the product
Trade name: Solder-wire KS 100 FLOWTIN® TC (S-Sn99Cu1)
Usage of the product / preparation: Solder wire for soft soldering

Identification of the manufacturer / supplier
Address: Stannol GmbH
Oskarstr. 3 - 7
42283 Wuppertal
Phone: 0202 585 0
Fax: 0202 585 155
Emergency call: 0202 585 119 (only during trading hours 8:00 h – 17:00 h)
E-mail: werner.kruppa@stannol.de

2. Possible hazards:
Not a composition for the purposes of the Dangerous Substances Regulations, but nevertheless observe items 4-16
Additional hazards for human health and environment:
May cause occupational asthma

3. Composition/Information on the components

Chemical characterization: Tin-Copper alloy (with <0,1 % other iron-metals) with flux max. 3,5 % modified resin (halide-free)

Composition according to EC 1907/2006:

<table>
<thead>
<tr>
<th>Contents</th>
<th>CAS No.</th>
<th>EINECS No.</th>
<th>Symbols</th>
<th>R-phrases:</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>remainder</td>
<td>7440-31-5</td>
<td>231-141-8</td>
<td></td>
<td></td>
<td>Tin</td>
</tr>
<tr>
<td>&lt;0,9%</td>
<td>7440-50-8</td>
<td>231-159-6</td>
<td></td>
<td></td>
<td>copper</td>
</tr>
<tr>
<td>&lt;3,5%</td>
<td></td>
<td></td>
<td>modified resin</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The wording of the R-phrases stated is indicated in Section 16

4. First Aid measures

General information: If casualty is unconscious but breathing, place in the recovery position.
If breathing has stopped apply artificial resuscitation or give oxygen by mask
After inhalation: Remove patient to fresh air. If irritation resists, obtain medical attention.
After skin contact: If any skin irritation develops seek medical attention
After eye contact: Flush immediately with plenty of water. In cases where spitting flux has entered the eye seek medical attention.
After ingestion: Rinse mouth immediately and drink plenty of water. Seek medical advice.
Hints for doctors.
Inhalation of the flux fumes given off at soldering temperatures will irritate the nose, throat and respiratory system. Repeated or prolonged exposure to flux fumes may cause shortness of breath and cough.

Physician’s information
Treatment: Decontamination, treatment of symptoms.

5. Fire fighting measures

Suitable extinguishing media: Use extinguishing media appropriate to surrounding fire conditions
Special protective equipment for fire fighting: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. Accidental release measures

Pick up and place in appropriate container

7. Handling and storage

The fumes produced during soldering should be extracted away from the breathing zone of the operators. Ensure the area is well ventilated. Wash hands with soap and warm water after handling, particularly before eating, drinking or smoking.
The product should be stored in a cool, dry area.
8. Exposure controls and personal protection

Additional information on system design:
Local exhaust or dilution ventilation and control of process conditions are suitable methods..

Substances with limit values to be monitored at the working place:

Danger to health at the working place:
Peak limit category:

Working place limit values according to TRGS 900 from Section 2 for Germany:

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No.</th>
<th>ml/m³ (ppm)</th>
<th>mg/m³</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tin</td>
<td>7440-31-5</td>
<td>2</td>
<td></td>
<td>MAK (NL)</td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
<td>1</td>
<td></td>
<td>MAK (DFG)</td>
</tr>
</tbody>
</table>

Skin resorption / Sensitization: Skin resorption ---- Sensitization: ----

General protection and hygiene measures
Avoid direct contact with eyes, the skin and clothing.

Personal protection
Respiratory protection: If concentrations are over the exposure limit, use a supplied air respirator.
Hand protection: Use heat resistant gloves if required.
Eye protection: Operators should wear goggles
Personal protection: Light protective clothing

9. Physical and chemical properties

Form: Tin-Copper Solder
Colour: silver
Melting Point: 227 °C
Vapour Pressure: n.a.
Density(20°C): 7-8 g/cm³ g/cm³

10. Stability and reactivity

Reaction with substances: Possible with oxidising agents.
Hazardous combustion or decomposition products: none

11. Toxicological information

The toxicological classification of the product is based on the results of the calculation procedure of the general preparation directive 1999/45/EC.

Acute Effects:
None toxic metal.

12. Ecological information

General information: No effect to environment known

13. Disposal considerations

Disposal information
Product: Contact a licensed professional waste disposal service to dispose of this material.
Further information: Observe all federal, state and local environmental regulations. Collect metal for recycling
Waste identity number: Waste identity number EAK-code: 120104

14. Transport information

GGVS/ADR/RID: The product is not classified as hazardous for transport
15. Legal regulations:

Labelling information: The product is classified and labelled according to the EC Directives.
Water hazard class: Not subject to current legislation
Classification according to the TA Luft: WGK 1 (weakly water-endangering)
Ingredients: Organic materials class III; whole-carbon-concentration: Max. acceptable Emission 50 mg/m^3 (mass-flow-rate >= 0.5 kg/h)

16. Further information

R-phrases point 3:------------------------
n.k.: not known
n.a.: not applicable

Other information
This statement is based on our current knowledge and offers no assurance of product properties.

Department issuing the data sheet
Stannol GmbH/Quality Assurance/Laboratory

Contact person
Dr. Kruppa