1. Identification of the substance/preparation and of the company/undertaking

Trade name:
99C X39 2C 0.7MM 0.25KG RLR

Intended use:
Solder Wire

Company name:
Henkel AG & Co. KGaA
Henkelstr. 67
40191 Düsseldorf
Germany

Phone: +49 (211) 797-0

E-mail address of person responsible for Safety Data Sheet:
ua-productssafety.uk@uk.henkel.com

Emergency information:
24 Hours Emergency Tel: +44 (0)20 8312 0291

2. Hazards identification

This product contains modified rosin.
Flux fumes emitted during reflow will irritate the nose and throat and may cause an asthmatic type reaction.

3. Composition / information on ingredients

Declaration of ingredients according to EC/1907/2006:

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>CAS-No.</th>
<th>EINECS</th>
<th>content</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tin</td>
<td>7440-31-5</td>
<td>231-141-8</td>
<td>90 - 100 %</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
<td>231-159-6</td>
<td>0,1 - 1  %</td>
<td>R52/53, R22, R36/37/38</td>
</tr>
</tbody>
</table>

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.

Substances without classification may have community workplace exposure limits available.

4. First aid measures

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.
5. Fire fighting measures

Combustion behaviour:
The product itself does not burn. Any fire extinguishing action should be appropriate to the surroundings.

Extinguishing media which must not be used for safety reasons:
Do not use water on fires where molten metal is present.

Special protection equipment for firefighters:
Wear self-contained breathing apparatus.

Hazardous combustion products:
High temperatures may produce heavy metal dust, fumes or vapours.
The flux medium will give rise to irritating fumes.

6. Accidental release measures

Personal precautions:
Avoid contact with skin and eyes.

Environmental precautions:
Do not empty into drains / surface water / ground water.

Clean-up methods:
Scrape up spilled material and place in a closed container for disposal.

7. Handling and storage

Handling:
Extraction is necessary to remove fumes evolved during reflow.
When using do not eat, drink or smoke.
Wash hands before breaks and immediately after handling the product.

Storage:
Store in a cool, dry place.
8. Exposure controls / personal protection

Components with specific control parameters for workplace:
Valid for
Great Britain
Basis
UK EH40 WELs

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>ppm</th>
<th>mg/m³</th>
<th>Type</th>
<th>Category</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>TIN (INORGANIC COMPOUNDS AS SN) 7440-31-5</td>
<td>2</td>
<td>Time Weighted Average (TWA)</td>
<td>EU-2000/39/EC</td>
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<tr>
<td>COPPER, FUME 7440-50-8</td>
<td>0.2</td>
<td>Time Weighted Average (TWA)</td>
<td>EH40 WEL</td>
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<tr>
<td></td>
<td>1</td>
<td>Time Weighted Average (TWA)</td>
<td>EH40 WEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Short Term Exposure Limit (STEL):</td>
<td>EH40 WEL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering controls:
Extraction is necessary to remove fumes evolved during reflow.
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection:
The use of chemical resistant gloves such as Nitrile are recommended
Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Wear protective glasses.

9. Physical and chemical properties

General characteristics:
Appearance: solid
Odor: grey

Phys./chem. properties:
pH-value: not applicable
Flash point: none
Vapor pressure: not applicable
Density: 7.3 g/cm³
(25 °C (77 °F))
Solubility (qualitative): insoluble
(Solvent: Water)
Melting point: 227 - 240 °C (440.6 - 464 °F)
Octanol/Water distribution coefficient: Not applicable
VOC content: < 5.0 %

10. Stability and reactivity

Conditions to avoid:
Stable under recommended storage conditions.

Materials to avoid:
Solder alloy will react with concentrated nitric acid to produce toxic fumes of nitrogen oxides.
Hazardous decomposition products:
Thermal decomposition can lead to release of irritating gases and vapors.

11. Toxicological information

Oral toxicity:
This material is considered to have low toxicity if swallowed.

Inhalative toxicity:
Fumes evolved at soldering temperatures will irritate the nose, throat and lungs. Prolonged or repeated exposure to flux fumes may result in sensitisation in sensitive workers.

Dermal toxicity:
This product is considered to have low dermal toxicity.

Skin irritation:
Fumes emitted during soldering may irritate the skin.

Eye irritation:
Fumes emitted during soldering may irritate the eyes.

12. Ecological information

Mobility:
The product is insoluble and sinks in water.

Persistence and Biodegradability:
The product is not biodegradable.

Bioaccumulative potential:
Octanol/Water distribution coefficient: Not applicable

General ecological information:
Do not empty into drains / surface water / ground water.

13. Disposal considerations

Product disposal:
Wherever possible unwanted solder alloy should be recycled for recovery of metal. Otherwise dispose of in accordance with local and national regulations.

Waste code(EWC ):
06 04 05 - wastes containing other heavy metals

Disposal of uncleaned packages:
Dispose of as unused product.

14. Transport information

General information:
Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.
15. Regulations - classification and identification

Indication of danger:

none

Risk phrases:
not applicable

Safety phrases:
not applicable

Additional information:
Avoid breathing fumes given out during soldering.
Flux fumes may irritate the nose, throat and lungs and may after prolonged/repeated exposure give an allergic reaction (asthma).
After handling solder wash hands with soap and water before eating, drinking or smoking.
Keep out of reach of children.

National regulations/information (Great Britain):

Remarks
The Health & Safety at Work Act 1974.
The Control of Substances Hazardous to Health Regulations. L5:General
Approved Code of Practice to the COSHH Regulations. HS(G)97:A Step by Step
Guide to the COSHH Regulations. HS(G)193:COSHH essentials: Easy steps to
control chemicals.
IND (G)248L:Solder fume and you. IND(G)249L:Controlling health risks from
rosin (colophony) based solder fluxes.

16. Other information

The labelling of the product is indicated in Section 15. The full text of the R-phrases indicted by codes in this safety data sheet
are as follows:
R22 Harmful if swallowed.
R36/37/38 Irritating to eyes, respiratory system and skin.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Further information:
This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is
intended to describe our products from the point of view of safety requirements and is not intended to guarantee any
particular properties.
This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and it's subsequent amendments, and