



## Safety Data Sheet

HCS-2012 APPENDIX D TO §1910.1200 Regulation (EC) No 1907/2006 (REACH).

Annex II (COMMISSION REGULATION (EU) No 453/2010)

|                                |                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------|
| <b>Applicant</b>               | KOPEN ELECTRICAL CO., LTD.                                                               |
| <b>Address</b>                 | 2/F FLAT G-H WINNER FACTORY BUILDING, 55 HUNG TO<br>ROAD, KWUN TONG, KOWLOON, HONG KONG. |
| <b>Attn.:</b>                  | Ms. Sarah See                                                                            |
| <b>Sample<br/>Description:</b> | Lead Free Solder Wire                                                                    |
| <b>Model No.:</b>              | /                                                                                        |

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Dated 2016-02-03

## SECTION 1: Identification of the substance /mixture and of the company/undertaking

### 1.1. Product identifier

|                         |                          |
|-------------------------|--------------------------|
| Product Name:           | Lead Free Solder Wire    |
| Brand                   | No information available |
| Model No.:              | No information available |
| REACH registration No.: | Not applicable           |

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

|                       |                          |
|-----------------------|--------------------------|
| Recommended Use:      | Soldering                |
| Uses advised against: | No information available |

### 1.3. Details of the supplier of the safety data sheet

|            |                                                            |
|------------|------------------------------------------------------------|
| Company:   | ANTEX Electronics Ltd                                      |
| Address:   | 2 Westbridge Industrial Estate, Tavistock, Devon, PL19 8DE |
| Telephone: | +44 (0) 01822 613565                                       |
| FAX:       | +44 (0) 01822 617598                                       |
| E-mail:    | sales@antex.co.uk                                          |

### 1.4. Emergency telephone number

|                  |                      |
|------------------|----------------------|
| Emergency Phone: | +44 (0) 01822 613565 |
|------------------|----------------------|

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008[CLP]

Eye irritation (Category 2), H319

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

### 2.2. Label elements

Symbols/Pictograms



|                   |         |                                   |
|-------------------|---------|-----------------------------------|
| Signal word       | Warning |                                   |
| Hazard Statements | H319    | Causes serious eye irritation.    |
|                   | H335    | May cause respiratory irritation. |



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Precautionary Statements P305+P351+P338  
IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.

### 2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxicity data:

Rosin: CAUTION: Certain Sensitive individuals may develop eczema and/or occupational asthma on exposure to this material. Sensitised persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL.

Additional warning phrases:

Contains rosin. May produce an allergic reaction. Safety data sheet available for professional user on request.

## SECTION 3: Composition/information on ingredients

### 3.1. Mixture

| Chemical Name  | EC No     | CAS No     | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|----------------|-----------|------------|----------|-----------------------------------------------------------------|
| Tin (Sn)       | 231-141-8 | 7440-31-5  | 97.761   | Eye Irrit. 2; STOT SE 3; H319, H335                             |
| Copper (Cu)    | 231-159-6 | 7440-50-8  | 0.739    | Not classified                                                  |
| Modified rosin | ---       | 65997-13-9 | 1.5      | H337, H334                                                      |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General advice**

Remove contaminated clothing and shoes. If symptoms persist, call a physician.

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

**Skin Contact**

Wash off with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

**Eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Ingestion**

Rinse mouth. Do not induce vomiting. Get medical advice/attention.



## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                  |                                                                          |
|----------------------------------|--------------------------------------------------------------------------|
| Suitable extinguishing media:    | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media : | No information available                                                 |

### 5.2. Special hazards arising from the substance or mixture

Tin/tin oxides

### 5.3. Advice for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas  
Ensure adequate ventilation, especially in confined areas  
Remove all sources of ignition  
Avoid contact with skin, eyes and inhalation of vapors  
Use personal protection recommended in Section 8

### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so  
Do not allow into any sewer, on the ground or into any body of water

### 6.3. Methods and material for containment and cleaning up

Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container

### 6.4. Reference to other sections

See Section 7 for more information  
See section 8 for more information  
See section 13 for more information

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed.  
For precautions see section 2.2.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.  
Air and moisture sensitive. Handle and store under inert gas.  
Storage class (TRGS 510): Non Combustible Solids

### 7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:

| Chemical Name             | Australia                                    | Austria                                                                                                          | Denmark                                                  | ACGIH TLV                                                                    | NIOSH IDLH                                                                                                                                                                                                                |
|---------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Copper (CAS #: 7440-50-8) | 1 mg/m <sup>3</sup><br>0.2 mg/m <sup>3</sup> | STEL 4 mg/m <sup>3</sup><br>STEL 0.4 mg/m <sup>3</sup><br>TWA: 1 mg/m <sup>3</sup><br>TWA: 0.1 mg/m <sup>3</sup> | TWA: 1.0 mg/m <sup>3</sup><br>TWA: 0.1 mg/m <sup>3</sup> | TWA: 0.2 mg/m <sup>3</sup> fume<br>TWA: 1 mg/m <sup>3</sup> Cu dust and mist | IDLH: 100 mg/m <sup>3</sup> dust, fume and mist<br>IDLH: 100 mg/m <sup>3</sup> Cu dust and mist<br>TWA: 1 mg/m <sup>3</sup> dust and mist<br>TWA: 0.1 mg/m <sup>3</sup> fume<br>TWA: 1 mg/m <sup>3</sup> Cu dust and mist |

### 8.2. Exposure controls

#### Engineering Controls

Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.

#### Personal protective equipment

##### Eye/face protection:

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection:

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.



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Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body protection:**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection:**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**8.3. Environmental exposure controls**

Do not let product enter drains.

## SECTION 9: Physical and Chemical Properties

**9.1. Information on basic physical and chemical properties**

|                               |                          |
|-------------------------------|--------------------------|
| Appearance                    | Solid                    |
| Color                         | Silvery                  |
| Odor                          | Odourless                |
| Odor Threshold                | No information available |
| pH                            | No information available |
| Melting point/freezing point  | No information available |
| Boiling point / boiling range | No information available |
| Flash point                   | No information available |
| Evaporation rate              | No information available |
| Flammability                  | Not flammable            |
| Flammability Limit in Air     | No information available |
| Vapor Pressure                | No information available |
| Vapor density                 | No information available |
| Density                       | No information available |
| Relative density              | No information available |
| Bulk density                  | No information available |
| Specific gravity              | No information available |
| Water solubility              | Insoluble in water       |

**Partition coefficient**



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|                           |                          |
|---------------------------|--------------------------|
| Autoignition temperature  | No information available |
| Decomposition temperature | No information available |
| Kinematic viscosity       | No information available |
| Dynamic viscosity         | No information available |
| Explosive properties      | Not an explosive         |
| Oxidizing properties      | No information available |

**9.2. Other information**

No information available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No information available.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No information available.

**10.4. Conditions to avoid**

Strong heating.

**10.5. Incompatible materials**

Strong oxidizing agents, Chlorine, permanganates, e.g. potassium permanganate

**10.6. Hazardous decomposition products**

Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Titanium/titanium oxides  
Other incomplete combustion products

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**

| Chemical Name             | Oral LD50 (Rat)      | Dermal LD50(Rabbit)  | Inhalation LC50     |
|---------------------------|----------------------|----------------------|---------------------|
| Copper (CAS #: 7440-50-8) | > 2500 mg/kg bw(rat) | > 2000 mg/kg bw(rat) | =1.03 mg/L/4 h(rat) |

**Skin corrosion/irritation**

No data available.

**Serious eye damage/eye irritation**

No data available.

**Sensitization**

No data available.

**Germ cell mutagenicity**

No data available.

**Carcinogenicity**

No data available.

**Reproductive toxicity**

No data available.

**STOT - single exposure**

No data available.

**STOT - repeated exposure**

No data available.

**Aspiration hazard**

No data available.

## SECTION 12: Ecological information

**12.1. Toxicity**

No data available.

**12.2. Persistence and degradability**

No data available.

**12.3. Bioaccumulative potential**

No data available.

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.



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**12.6. Other adverse effects**

No data available.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Waste from residues/unused products:

Contaminated packaging:

Disposal should be in accordance with applicable regional, national and local laws and regulations

Empty containers should be taken for local recycling, recovery or waste disposal.

**SECTION 14: Transport information**

**14.1. UN Number**

Not regulated

**14.2. Proper shipping name**

Not regulated

**14.3. Hazard Class**

Not regulated

**14.4. Packing Group**

Not regulated

**14.5. Environmental hazards**

Not marine pollutant

**14.6. Special precautions**

No information available

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

**International Inventories**

No information available

**15.2. Chemical safety assessment**

No information available



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**SECTION 16: Other information**

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

Key or legend to abbreviations and acronyms used in the safety data sheet

**TWA** - TWA (time-weighted average)

**STEL** - STEL (Short Term Exposure Limit)

**Ceiling** - Maximum limit value

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**Full text of H-Statements referred to under section 3**

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H337 May cause sensitization skin contact.

H334 May cause sensitization by inhalation.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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