

**Safety Data Sheet**  
**According to Regulation (EC) No 1907/2006, Annex II,**  
**Amended by COMMISSION REGULATION (EU) 2015/830,**  
**According to REGULATION (EC) No 1272/2008**

Rosin core lead free solder

Version 1.0

Issue date: 03-12-2018

Revision date: 03-12-2018

SDS Record Number: CSSS-TCO-010-129695

**Section 1 Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier:**

Identification on the label/Trade name: ROSIN FLUX CORED LEAD-FREE SOLDER  
Additional identification: Draper stock numbers 71415, 97992, 97993, 97994, 98102  
Identification of the product: See section 3  
Index Number: See section 3  
REACH registration No.: See section 3

**1.2 Relevant identified uses of the substance or mixture and uses advised against:**

**1.2.1 Identified uses:**

Not available.

**1.2.2 Uses advised against:**

Not available.

**1.3 Details of the supplier of the safety data sheet:**

Supplier(Manufacturer): Draper Tools Ltd  
Address: Hursley Road, Chandlers Ford, Eastleigh, Hampshire  
SO53 1YF

**1.4 Emergency telephone Number:**

Draper Helpline +44 (0) 2380 494344

**Section 2 Hazards Identification**

**2.1 Classification of the substance or mixture:**

**2.1.1 Classification:**

The mixture is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Skin Sens. 1	H317

For full text of H- phrases: see section 2.2.

**2.2 label elements:**

**Hazard Pictograms:**



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Signal Word(S):

Warning

Hazard Statement:

H317: May cause an allergic skin reaction

Precautionary statement:

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352: IF ON SKIN: Wash with plenty of water.

P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention.

P362 + P364: Take off contaminated clothing and wash it before reuse.

P501: Dispose of contents/container in accordance with local regulation.

### 2.3 Other hazards:

Not applicable.

## Section 3 Composition/information on ingredients

Substance/Mixture:

Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	Classification
Tin	N/A	7440-31-5	231-141-8	97.3%	Not Classified
Rosin	N/A	8050-09-7	232-475-7	2%	H317
Copper	N/A	7440-50-8	231-159-6	0.6%	Not Classified
Silver	N/A	7440-22-4	231-131-3	<500ppm	Not Classified
Lead	N/A	7439-92-1	231-100-4	<100ppm	H362 H360FD

## Section 4 First aid measures

### 4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

#### 4.1.1 In case of inhalation:

Emetic. If no anesis, please go to the hospital.

#### 4.1.2 In case of skin contact:

Wash with soap and water.

#### 4.1.3 In case of eyes contact:

Immediately rinse eyes with running water for at least 15 minutes, If no anesis, please go to the hospital.

#### 4.1.4 In case of ingestion:

Emetic. If no anesis, please go to the hospital.

### 4.2 Most important symptoms and effects, both acute and delayed:

Swallowed large amounts may cause digestive system discomfort. Several repeated prolonged exposures (24 to 48 hours) may cause skin irritate. Direct contact may cause eye temporary discomfort with mild inflamed, aningeresting, and irritation. May cause an allergic skin reaction.

### 4.3 Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

## Section 5 Firefighting measures

### 5.1 Extinguishing media:

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Suitable extinguishing media:

Foam, dry chemical or CO2, other Class B agents, water spray.

Unsuitable extinguishing media:

Avoid solid water stream if possible.

**5.2 Special hazards arising from the substance or mixture**

Burning can produce carbon monoxide, carbon dioxide, oxides of silicon, and hydrocarbons. The hydrogen fluoride will be released when burning.

**5.3 Advice for firefighters:**

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Wear chemical resistant oversuit. Cool containers / tanks with water spray.

**Section 6 Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures:**

6.1.1 For non-emergency personnel:

Prevent further leakage or spillage if safe to do so. Keep away from incompatible products.

6.1.2 For emergency responders:

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ventilate the area. Wear suitable protective clothing.

**6.2 Environmental Precautions:**

Should not be released into the environment. Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

**6.3 Methods and material for Containment and Cleaning up:**

Sweep up and shovel into suitable containers for disposal.

**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 information on disposal.

**Section 7 Handling and storage**

**7.1 Precautions for safe handling:**

7.1.1 Protective measures:

Avoid prolonged skin contact. Keep the air flowing when using. Avoid eye contact. Avoid breathing dust. Wash hands completely when finished using or contact.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

**7.2 Conditions for safe storage, including any incompatibilities:**

Avoid direct sunlight. Store away from food and water. Keep away from fire and heating sources. Equipped with corresponding varieties and number of fire equipment. Storage areas should be equipped with leakage emergency treatment equipment and suitable for accept materials.

**7.3 Specific end use(s):**

Not applicable.

**Section 8 Exposure Controls/Personal Protection**

**8.1 Control parameters:**

**8.1.1 Occupational exposure limits:**

Country	Substance	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		
			ppm	mg/ m3	ppm	mg/ m3	Note
Ireland	Tin compounds, inorganic, except SnH4, (as Sn)	7440-31-5 & others	-	2	-	4	-
Ireland	Lead and its compounds (except tetraethyl lead);	7439-92-1	-	0.15	-	-	Repro1, BELV
Ireland	Copper (as Cu) Fume dusts and mists (as Cu)	7440-50-8	-	0.2	-	-	-
			-	1	-	2	-

Ireland	Silver (metallic)	7440-22-4	-	0.1	-	-	IOELV
United Kingdom	Rosin-based solder flux fume	8050-09-7	-	0.05	-	0.15	Sen

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

## 8.2 Exposure controls:

8.2.1 Appropriate engineering controls: Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection: Wear chemical safety protective glasses.

Hand protection: Wear rubber oil resistant glove.

Body protection: Wear anti-static clothes.

Respiratory protection: Exceed the standard concentration in air, must wear self-priming filter type gas mask (half mask), emergency rescue or evacuation, should wear air respirator.

Thermal hazards: Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls: Avoid discharge into the environment.  
According to local regulations, Federal and official regulations.

## Section 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties:

Appearance:	Silvery solid
Colour:	Silvery
Odour:	Odorless
Odour threshold:	Not available
pH:	Not available
Melting point/range (°C):	231.88°C
Boiling point/range (°C):	Not available
Flash point (°C):	Not available
Fire Point:	2507°C
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower explosive limits:	Not available
Vapour pressure (20°C):	Not available
Vapour density:	Not available
Relative Density:	7.28 (20°C)
Bulk density (kg/m <sup>3</sup> ):	Not available
Water solubility (g/l):	Insoluble
n-Octanol/Water (log Po/w):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available

### 9.2. Other information:

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Fat solubility(solvent-oil to be specified) etc:	Not available
Surface tension:	Not available
Dissociation constant in water( pKa):	Not available
Oxidation-reduction Potential:	Not available

## Section 10 Stability and reactivity

10.1 Reactivity:	The substance is stable under normal storage and handling conditions.
10.2 Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
10.3 Possibility of hazardous reactions:	No dangerous reactions known.
10.4 Conditions to avoid:	Incompatible materials. Keep away from direct sunlight. To avoid thermal decomposition, do not overheat.
10.5 Incompatible materials:	Oxidizing agents.
10.6 Hazardous decomposition products:	Burning can produce carbon monoxide, carbon dioxide, oxides of silicon, and hydrocarbons. The hydrogen fluoride will be released when burning.

## Section 11 Toxicological information

11.1 Information on toxicological effects:	
Acute toxicity:	
ATE <sub>mix</sub> (oral):	Not available
ATE <sub>mix</sub> (inhalation):	Not available
ATE <sub>mix</sub> (Dermal):	Not available
Tin (CAS#7440-31-5)	
LD50(Oral, Rat):	> 2000 mg/kg bw female
LC50(Inhalation, Rat):	> 4.75 mg/L 4 h
LD50(Dermal, Rat):	> 2000 mg/kg bw
Skin corrosion/Irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	May cause an allergic skin reaction.
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

## Section 12 Ecological information

12.1 Toxicity:	
Tin (CAS#7440-31-5)	
Acute (short-term) toxicity:	
LC50(96h, Fish):	> 12.4 µg/L
EC50(48h, Crustacea):	Not available
EC50(72h, Algae/aquatic plants):	> 19.2 µg/L
Chronic (long-term) toxicity:	
NOEC(Fish):	Not available

NOEC(Crustacea):	Not available
EC50(Algae/aquatic plants):	Not available
12.2 Persistence and degradability:	Not available.
12.3 Bioaccumulative potential:	Not available.
12.4 Mobility in soil:	Not available.
12.5 Results of PBT and vPvB assessment:	Not applicable
12.6 Other adverse effects:	Not available.

### Section 13 Disposal considerations

**13.1 Waste treatment methods:** Dispose of in accordance with all applicable local and national regulations. Use recovery/recycling where feasible, otherwise incineration is the recommended method of disposal. Empty containers may contain hazardous residues. Do not cut, puncture or weld on or near to the container. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

### Section 14 Transport information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	Not Regulated	Not Regulated	Not Regulated	Not Regulated
UN Proper shipping name	Not Regulated	Not Regulated	Not Regulated	Not Regulated
Transport hazard Class(es)	Not Regulated	Not Regulated	Not Regulated	Not Regulated
Packing group	Not Regulated	Not Regulated	Not Regulated	Not Regulated
Environmental hazards	No	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of Marpol and the IBC Code	Not Regulated	Not Regulated	Not Regulated	Not Regulated

### Section 15 Regulatory information

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

Relevant information regarding authorization: Not applicable.  
 Relevant information regarding restriction: Not applicable.  
 Other EU regulations: Employment restrictions concerning young person must be observed. For use by technically competent individuals  
 Other National regulations: Not applicable

**15.2 Chemical safety assessment**

YES  NO

### Section 16 Other information

**16.1 Indication of changes:**

Product name: Rosin core lead free solder  
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## 16.2 Abbreviations and acronyms:

- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
RID: Regulation for rail International transportation of Dangerous goods  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
IMDG: Code international maritime dangerous goods code  
ICAO: International Civil Aviation Organization  
IATA: International Air Transport Association  
LC50: median lethal concentration  
EC50: The effective concentration of substance that causes 50% of the maximum response.  
NOEC: No Observed Effect Concentration  
DNEL: derived no-effect level  
PNEC: predicted no-effect concentration

## 16.3 Key literature references and sources for data

ECHA Registered substances data

## 16.4 Classification and procedure used to derive the classification for mixtures according to Regulation (EC)

### 1272/2008 [CLP]

Classification according to Regulation (EC) No. 1272/2008		Classification procedure
Skin Sens. 1	H317	Calculation method

## 16.5 Relevant H-statements (number and full text):

- H317: May cause an allergic skin reaction  
H360FD: May damage fertility. May damage the unborn child.  
H362: May cause harm to breast-fed children.

## 16.6 Training instructions:

Not applicable.

## 16.7 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

## 16.8 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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