

## SAFETY DATA SHEET SURFACE MOUNT FLUX PENS

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

**Product name** SURFACE MOUNT FLUX PENS  
**Product No.** SMF, ESMF12P, EEPK000, ZE

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

**Identified uses** Manufacture of electrical equipment  
**Uses advised against** At this moment in time we do not have information on use restrictions. They will be included in this safety data sheet when available

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

**Supplier** ELECTROLUBE. A division of HK WENTWORTH LTD  
ASHBY PARK, COALFIELD WAY,  
ASHBY DE LA ZOUCH, LEICESTERSHIRE  
LE65 1JR  
UNITED KINGDOM  
+44 (0)1530 419600  
+44 (0)1530 416640  
info@hkw.co.uk

#### 1.4. Emergency telephone number

+44 (0)1530 419600 between 8.30am - 5.00pm GMT Mon – Fri

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

Physical and Chemical Hazards	Flam. Liq. 2 - H225
Human health	Eye Irrit. 2 - H319; Skin Sens. 1 - H317; STOT SE 3 - H336
Environment	Not classified.

##### Classification (1999/45/EEC)

Xi; R36. R43. F; R11. R67.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

#### 2.2. Label elements

**Contains** ROSIN  
**Label In Accordance With (EC) No. 1272/2008**



**Signal Word** Danger

##### Hazard Statements

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

# SURFACE MOUNT FLUX PENS

## Precautionary Statements

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280	Wear protective gloves, eye and face protection.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P313	Get medical advice/attention.

## Supplementary Precautionary Statements

P261	Avoid breathing vapour/spray.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.

## 2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

<b>PROPAN-2-OL</b>	<b>80-100%</b>
CAS-No.: 67-63-0	EC No.: 200-661-7
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	Classification (67/548/EEC) F;R11 Xi;R36 R67
<b>ROSIN</b>	<b>1-5%</b>
CAS-No.: 8050-09-7	EC No.: 232-475-7
Classification (EC 1272/2008) Skin Sens. 1 - H317	Classification (67/548/EEC) R43

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### Composition Comments

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### Inhalation

Not relevant

#### Ingestion

DO NOT INDUCE VOMITING! Provide fresh air, warmth and rest, preferably in comfortable upright sitting position. Rinse mouth thoroughly. Get medical attention.

#### Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.

#### Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

#### Inhalation

Vapours may cause drowsiness and dizziness.

#### Ingestion

May cause discomfort if swallowed.

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## **Skin contact**

Prolonged contact may cause redness, irritation and dry skin.

## **Eye contact**

May cause severe irritation to eyes.

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

Treat Symptomatically.

## **SECTION 5: FIREFIGHTING MEASURES**

### **5.1. Extinguishing media**

#### **Extinguishing media**

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

#### **Unsuitable extinguishing media**

Do not use water jet as an extinguisher, as this will spread the fire.

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

#### **Hazardous combustion products**

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

#### **Specific hazards**

Oxides of: Carbon.

### **5.3. Advice for firefighters**

#### **Special Fire Fighting Procedures**

Move container from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapours. Dike and collect extinguishing water.

#### **Protective equipment for fire-fighters**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Follow precautions for safe handling described in this safety data sheet. Do not smoke, use open fire or other sources of ignition. Take precautionary measures against static discharges. Provide adequate ventilation.

### **6.2. Environmental precautions**

Do not discharge into drains, water courses or onto the ground.

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

Absorb with inert, damp, non-combustible material, then flush area with water. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

### **6.4. Reference to other sections**

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards. For waste disposal, see section 13.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Avoid inhalation of vapours and spray mists.

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

Keep containers tightly closed. Keep in original container. Keep away from heat, sparks and open flame.

#### **Storage Class**

Flammable liquid storage.

### **7.3. Specific end use(s)**

The identified uses for this product are detailed in Section 1.2.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

# SURFACE MOUNT FLUX PENS

## 8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
PROPAN-2-OL	WEL	400 ppm	999 mg/m <sup>3</sup>	500 ppm	1250 mg/m <sup>3</sup>	

WEL = Workplace Exposure Limit.

### PROPAN-2-OL (CAS: 67-63-0)

<b>DNEL</b>			
Industry	Dermal	888	mg/kg/day
Industry	Inhalation.	500	mg/m <sup>3</sup>
Consumer	Dermal	319	mg/kg/day
Consumer	Inhalation.	89	mg/m <sup>3</sup>
Consumer	Oral	26	mg/kg/day
<b>PNEC</b>			
Freshwater	140.9	mg/l	
Marinewater	140.9	mg/l	
Sediment	552	mg/kg	
Soil	28	mg/kg	

## 8.2. Exposure controls

### Process conditions

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station.

### Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

### Respiratory equipment

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit. Use respiratory equipment with combination filter, type A2/P3. EN14387

### Hand protection

Use protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Butyl rubber gloves are recommended. Gloves should conform to EN374

### Eye protection

Wear approved, tight fitting safety glasses where splashing is probable. EN166

### Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

### Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. When using do not eat, drink or smoke. Eating, smoking and water fountains prohibited in immediate work area.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Liquid
Initial boiling point and boiling range (°C)	82 (179.6 F)
Relative density	0.820 @ 20 °C (68 F)
Vapour pressure	4.4 kPa @ 20 °C (68 F)
Viscosity	@ °c
Flash point (°C)	12 (53.6 F) OC (Open cup).
Auto Ignition Temperature (°C)	425
Flammability Limit - Lower(%)	2.30
Flammability Limit - Upper(%)	12

### 9.2. Other information

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Reaction with: Strong oxidising agents.

# SURFACE MOUNT FLUX PENS

## **10.2. Chemical stability**

Stable under normal temperature conditions and recommended use.

## **10.3. Possibility of hazardous reactions**

### **Hazardous Polymerisation**

Will not polymerise.

## **10.4. Conditions to avoid**

Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time.

## **10.5. Incompatible materials**

### **Materials To Avoid**

Strong oxidising substances.

## **10.6. Hazardous decomposition products**

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

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## **SECTION 11: TOXICOLOGICAL INFORMATION**

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### **11.1. Information on toxicological effects**

#### **Acute toxicity:**

##### **Acute Toxicity (Oral LD50)**

5280 mg/kg Rat

##### **Acute Toxicity (Dermal LD50)**

12800 mg/kg Rabbit

##### **Acute Toxicity (Inhalation LC50)**

72.6 mg/l (vapours) Rat 4 hours

#### **Respiratory or skin sensitisation:**

##### **Skin sensitisation**

Buehler test: Guinea Pig

Not Sensitising.

##### **Inhalation**

May cause irritation to the respiratory system. Vapours may cause drowsiness and dizziness.

##### **Ingestion**

May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

##### **Skin contact**

Irritating to skin. Prolonged contact may cause dryness of the skin. Acts as a defatting agent on skin. May cause cracking of skin, and eczema.

##### **Eye contact**

Irritating to eyes.

##### **Route of entry**

Skin absorption. Ingestion. Skin and/or eye contact.

##### **Target Organs**

Central nervous system Eyes Respiratory system, lungs Skin

##### **Medical Symptoms**

Irritation of eyes and mucous membranes. Dilated pupils. Rhinitis (inflammation of the nasal mucous membranes). Upper respiratory irritation. General respiratory distress, unproductive cough. Skin irritation. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo.

#### **Toxicological information on ingredients.**

**SURFACE MOUNT FLUX PENS**  
**PROPAN-2-OL (CAS: 67-63-0)**

**Acute toxicity:**

**Acute Toxicity (Oral LD50)**

5280 mg/kg Rat

**Acute Toxicity (Dermal LD50)**

12800 mg/kg Rabbit

**Acute Toxicity (Inhalation LC50)**

72.6 mg/l (vapours) Rat 4 hours

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**SECTION 12: ECOLOGICAL INFORMATION**

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**Ecotoxicity**

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**12.1. Toxicity**

**Acute Fish Toxicity**

Not considered toxic to fish.

**Acute Toxicity - Fish**

LC50 96 hours 9640 mg/l Pimephales promelas (Fat-head Minnow)

**Acute Toxicity - Aquatic Invertebrates**

EC50 48 hours 13299 mg/l Daphnia magna

**Acute Toxicity - Aquatic Plants**

EC50 72 hours > 1.000 mg/l Scenedesmus subspicatus

**Acute Toxicity - Microorganisms**

EC50 > 1.000 mg/l Activated sludge

**Ecological information on ingredients.**

**PROPAN-2-OL (CAS: 67-63-0)**

**Acute Toxicity - Fish**

LC50 96 hours 9640 mg/l Pimephales promelas (Fat-head Minnow)

**Acute Toxicity - Aquatic Invertebrates**

EC50 48 hours 13299 mg/l Daphnia magna

**Acute Toxicity - Aquatic Plants**

EC50 72 hours > 1.000 mg/l Scenedesmus subspicatus

**Acute Toxicity - Microorganisms**

EC50 > 1.000 mg/l Activated sludge

**12.2. Persistence and degradability**

**Degradability**

The product is biodegradable.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential**

Will not bio-accumulate.

**12.4. Mobility in soil**

**Mobility:**

The product is soluble in water.

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

This product does not contain any PBT or vPvB substances.

**12.6. Other adverse effects**

Not determined.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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# SURFACE MOUNT FLUX PENS

## General information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. Do not puncture or incinerate even when empty. Rags and the like, moistened with flammable liquids, must be discarded into designated fireproof bucket.

### 13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

## SECTION 14: TRANSPORT INFORMATION

### 14.1. UN number

UN No. (ADR/RID/ADN)	1219
UN No. (IMDG)	1219
UN No. (ICAO)	1219

### 14.2. UN proper shipping name

Proper Shipping Name	ISOPROPANOL (ISOPROPYL ALCOHOL)
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### 14.3. Transport hazard class(es)

ADR/RID/ADN Class	3
ADR/RID/ADN Class	Class 3: Flammable liquids.
ADR Label No.	3
IMDG Class	3
ICAO Class/Division	3
Transport Labels	



### 14.4. Packing group

ADR/RID/ADN Packing group	II
IMDG Packing group	II
ICAO Packing group	II

### 14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant  
No.

### 14.6. Special precautions for user

EMS	F-E, S-D
Emergency Action Code	•2YE
Hazard No. (ADR)	33
Tunnel Restriction Code	(D/E)

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

## SECTION 15: REGULATORY INFORMATION

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

# SURFACE MOUNT FLUX PENS

## Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.

## Guidance Notes

Workplace Exposure Limits EH40.

## EU Legislation

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

## Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

## Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

## 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

## SECTION 16: OTHER INFORMATION

**Issued By** Helen O'Reilly

**Revision Date** APRIL 2013

**Revision** 1

**SDS No.** 10561

### Risk Phrases In Full

R11 Highly flammable

R36 Irritating to eyes.

R43 May cause sensitisation by skin contact.

R67 Vapours may cause drowsiness and dizziness.

### Hazard Statements In Full

H319 Causes serious eye irritation.

H225 Highly flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

## Disclaimer

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.