

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 number 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
 info@hkw.co.uk
 +44 (0)1530 419600
 +44 (0)1530 416640

1.4. Emergency telephone number

Emergency telephone +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

Physical hazards Flam. Liq. 2 - H225

Health hazards Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H336

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xi;R36. R43. F;R11. R67.

2.2. Label elements

Pictogram



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	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P280 Wear protective gloves, eye and face protection.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P313 Get medical advice/attention.</p> <p>P102 Keep out of reach of children.</p>
Contains	PROPAN-2-OL, ROSIN
Supplementary precautionary statements	<p>P261 Avoid breathing vapour/spray.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.</p>

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria. The above phrases are the risks associated with the product HAZARDOUS SUBSTANCE; DANGEROUS GOODS

SECTION 3: Composition/information on ingredients

3.2. Mixtures

PROPAN-2-OL			60-100%
CAS number: 67-63-0	EC number: 200-661-7	REACH registration number: 01-2119457558-25-XXXX	
Classification		Classification (67/548/EEC or 1999/45/EC)	
Flam. Liq. 2 - H225		F;R11 Xi;R36 R67	
Eye Irrit. 2 - H319			
STOT SE 3 - H336			
ROSIN			1-5%
CAS number: 8050-09-7	EC number: 232-475-7		
Classification		Classification (67/548/EEC or 1999/45/EC)	
Skin Sens. 1 - H317		R43	

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

Composition comments	No classified ingredients, or those having occupational exposure limits, present above the levels of disclosure.
-----------------------------	--

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Not relevant.
Ingestion	Do not induce vomiting. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. 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	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. 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

SURFACE MOUNT FLUX PENS

Inhalation	Vapours may cause drowsiness and dizziness.
Ingestion	May cause discomfort if swallowed.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	May cause severe eye irritation.

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

Notes for the doctor	Treat symptomatically.
-----------------------------	------------------------

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable 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

Specific hazards Oxides of the following substances: Carbon.

Hazardous combustion products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Move containers from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapours. Contain and collect extinguishing water.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage. Take precautionary measures against static discharges. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

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

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Keep away from heat, sparks and open flame. Avoid inhalation of vapours and spray/mists.

7.2. Conditions for safe storage, including any incompatibilities

SURFACE MOUNT FLUX PENS

Storage precautions Keep container tightly closed. Keep only in the original container. Keep away from heat, sparks and open flame.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³

WEL = Workplace Exposure Limit

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

DNEL	Industry - Dermal; : 888 mg/kg/day Industry - Inhalation; : 500 mg/m ³ Consumer - Dermal; : 319 mg/kg/day Consumer - Inhalation; : 89 mg/m ³ Consumer - Oral; : 26 mg/kg/day
PNEC	- Fresh water; 140.9 mg/l - Marine water; 140.9 mg/l - Sediment; 552 mg/kg - Soil; 28 mg/kg

8.2. Exposure controls

Appropriate engineering controls Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection It is recommended that chemical-resistant, impervious gloves are worn. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Butyl rubber. To protect hands from chemicals, gloves should comply with European Standard EN374.

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

Hygiene measures Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station. 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 and water if skin becomes contaminated. When using do not eat, drink or smoke. Eating, smoking and water fountains prohibited in immediate work area.

SURFACE MOUNT FLUX PENS

Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3. Gas and combination filter cartridges should comply with European Standard EN14387.
-------------------------------	--

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Initial boiling point and range	82 (179.6 F)°C @
Flash point	12 (53.6 F)°C OC (Open cup).
Evaporation rate	2.93
Upper/lower flammability or explosive limits	: 2.30
Vapour pressure	4.4 kPa @ °C
Vapour density	2.8
Relative density	0.820 @ @ 20 °C (68 F)°C
Auto-ignition temperature	425°C
Viscosity	@ °C

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The following materials may react with the product: Strong oxidising agents.
-------------------	--

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
------------------	---

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.
---	----------------------

10.4. Conditions to avoid

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 agents.
---------------------------	--------------------------

10.6. Hazardous decomposition products

Hazardous decomposition products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
---	--

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Skin sensitisation

Skin sensitisation	Buehler test: - Guinea pig: Not sensitising.
---------------------------	--

SURFACE MOUNT FLUX PENS

Inhalation	May cause respiratory system irritation. 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. Product has a defatting effect on skin. Repeated exposure may cause skin dryness or cracking. May cause allergic contact 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.

PROPAN-2-OL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 4,700.0

Species Rat

ATE oral (mg/kg) 4,700.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 12,800.0

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 46.5

Species Rat

ATE inhalation (vapours mg/l) 46.5

Inhalation Vapours may cause headache, fatigue, dizziness and nausea.

Eye contact Irritating to eyes.

Acute and chronic health hazards Irritation of eyes and mucous membranes. Narcotic effect. Central nervous system depression.

Route of entry Skin and/or eye contact Skin absorption Ingestion

Target organs Central nervous system Eyes Skin Respiratory system, lungs

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

SURFACE MOUNT FLUX PENS

SECTION 12: Ecological Information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish.

Acute toxicity - fish LC₅₀, 96 hours, 96 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours, 48 hours: 13299 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours, 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

Acute toxicity - fish LC₅₀, 96 hours, 96 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours, 48 hours: 13299 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours, 72 hours: > 1.000 mg/l, Scenedesmus subspicatus

Acute toxicity - microorganisms EC₅₀, >: > 1.000 mg/l, Activated sludge

12.2. Persistence and degradability

Persistence and degradability The product is biodegradable.

Ecological information on ingredients.

PROPAN-2-OL

Persistence and degradability The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product is not bioaccumulating.

Ecological information on ingredients.

PROPAN-2-OL

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

12.4. Mobility in soil

Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

SURFACE MOUNT FLUX PENS

PROPAN-2-OL

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Do not puncture or incinerate, even when empty. Materials such as cleaning rags and paper wipes that are contaminated with flammable liquids may self-ignite after use and should be stored in designated fireproof containers with tight-fitting, self-closing lids.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1219

UN No. (IMDG) 1219

UN No. (ICAO) 1219

UN No. (ADN) 1219

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ISOPROPANOL (ISOPROPYL ALCOHOL)

Proper shipping name (IMDG) ISOPROPANOL (ISOPROPYL ALCOHOL)

Proper shipping name (ICAO) ISOPROPANOL (ISOPROPYL ALCOHOL)

Proper shipping name (ADN) ISOPROPANOL (ISOPROPYL ALCOHOL)

14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID classification code F1

ADR/RID label 3

IMDG class 3

ICAO class/division 3

ADN class 3

Transport labels



14.4. Packing group

SURFACE MOUNT FLUX PENS

ADR/RID packing group	II
IMDG packing group	II
ADN 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
ADR transport category	2
Emergency Action Code	•2YE
Hazard Identification Number (ADR/RID)	33
Tunnel restriction code	(D/E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information

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

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).
EU legislation	Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments. 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 (as amended). 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 (as amended). 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) (as amended).
Guidance	Workplace Exposure Limits EH40.
Authorisations (Title VII Regulation 1907/2006)	No specific authorisations are known for this product.
Restrictions (Title VIII Regulation 1907/2006)	No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

SURFACE MOUNT FLUX PENS

No chemical safety assessment has been carried out.

SECTION 16: Other information

Issued by	Toni Ashford
Revision date	30/10/2015
Revision	2
SDS number	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	H225 Highly flammable liquid and vapour. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

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.