

SAFETY DATA SHEET

SURFACE MOUNT FLUX PENS

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME SURFACE MOUNT FLUX PENS
PRODUCT NO. ESMF12P
SUPPLIER ELECTROLUBE. A division of HK
WENTWORTH LTD
KINGSBURY PARK, MIDLAND ROAD
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2 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
PROPAN-2-OL	200-661-7	67-63-0	60-100%	F;R11 Xi;R36 R67

The Full Text for all R-Phrases are Displayed in Section 16

3 HAZARDS IDENTIFICATION

Highly flammable. Irritating to eyes. Vapours may cause drowsiness and dizziness.

CLASSIFICATION Xi;R36. F;R11. R67.

4 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

Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. 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.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use: Alcohol resistant foam. Powder. Dry chemicals, sand, dolomite etc.

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.

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEAN UP METHODS

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Wear necessary protective equipment. Absorb in vermiculite, dry sand or earth and place into containers.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact.

STORAGE PRECAUTIONS

Flammable/combustible - Keep away from oxidisers, heat and flames. Store in tightly closed original container in a cool, dry well-ventilated place. Keep in original container.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

SURFACE MOUNT FLUX PENS

Name	Std	LT - ppm	LT - mg/m3	ST - ppm	ST - mg/m3
PROPAN-2-OL	OES	400 ppm	999 mg/m3	500 ppm	1250 mg/m3

INGREDIENT COMMENTS

OES = Occupational Exposure Standard.

ENGINEERING MEASURES

All handling to take place in well-ventilated area.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Occupational Exposure Limit

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.

EYE PROTECTION

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

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 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.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid		
BOILING POINT (°C)	82	RELATIVE DENSITY	0.820 @ 20 °c
VAPOUR PRESSURE	4.4 kPa @ 20 °c	VISCOSITY	@ °c
FLASH POINT (°C)	12 OC (Open cup).	AUTO IGNITION TEMPERATURE (°C)	425
FLAMMABILITY LIMIT - LOWER(%)	2.30	FLAMMABILITY LIMIT - UPPER(%)	12

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition.

MATERIALS TO AVOID

Strong oxidising substances.

11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 1 4700 mg/kg (oral rat)

TOXIC CONC. - LC 50 46.5 mg/l/4h (inh-rat)

INHALATION

May cause irritation to the respiratory system.

INGESTION

May cause stomach pain or vomiting.

SKIN CONTACT

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.

12 ECOLOGICAL INFORMATION

REVISION DATE: MAY 2004

SURFACE MOUNT FLUX PENS

ECOTOXICITY

Not regarded as dangerous for the environment.

LC 50, 96 Hrs, FISH mg/l 9600

IC 50, 72 Hrs, ALGAE, mg/l 1800

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements. Absorb in vermiculite or dry sand, dispose in licensed special waste.

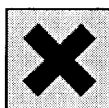
14 TRANSPORT INFORMATION



UK ROAD CLASS	3		
PROPER SHIPPING NAME	ISOPROPANOL (ISOPROPYL ALCOHOL)		
UN NO. ROAD	1219	UK ROAD PACK GR.	II
ADR CLASS NO.	3	ADR CLASS	Class 3: Flammable liquids.
ADR PACK GROUP	II	HAZARD No. (ADR)	33
ADR LABEL NO.	3	HAZCHEM CODE	2YE
CEPIC TEC(R) NO.	30GF1-I+II	RID CLASS NO.	3
RID PACK GROUP	II	UN NO. SEA	1219
IMDG CLASS	3	IMDG PAGE NO.	3244
IMDG PACK GR.	II	EMS	F-E; S-D
MFAG	See Guide	MARINE POLLUTANT	No.
UN NO. AIR	1219	ICAO CLASS	3
AIR PACK GR.	II		

15 REGULATORY INFORMATION

LABELLING



Irritant



Highly Flammable

RISK PHRASES

R11	Highly flammable.
R36	Irritating to eyes.
R67	Vapours may cause drowsiness and dizziness.

SAFETY PHRASES

S9	Keep container in a well-ventilated place.
S16	Keep away from sources of ignition - No smoking.
S25	Avoid contact with eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S51	Use only in well-ventilated areas.

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations.

ENVIRONMENTAL LISTING

Rivers (Prevention of Pollution) Act 1961. Control of Pollution (Special Waste Regulations) Act 1980. Control of Pollution Act 1974.

EU DIRECTIVES

System of specific information relating to Dangerous Preparations. 2001/58/EEC. Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EEC.

REVISION DATE: MAY 2004

SURFACE MOUNT FLUX PENS

APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

GUIDANCE NOTES

Occupational Exposure Limits EH40.

16 OTHER INFORMATION

GENERAL INFORMATION

CN No 38140090

REVISION COMMENTS

Revised in accordance with CHIP3 and EU Directives 1999/45/EC and 2001/58/EC

ISSUED BY

Helen O'Reilly

REVISION DATE MAY 2004

REV. NO./REPL. SDS GENERATED 1

SDS NO. 10561

RISK PHRASES IN FULL

R11 Highly flammable.

R36 Irritating to eyes.

R67 Vapours may cause drowsiness and 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.