

SAFETY DATA SHEET LEAD FREE FLUX REMOVER

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME LEAD FREE FLUX REMOVER
PRODUCT NO. ELFFR400DB
APPLICATION Manufacture of electrical equipment
SUPPLIER EUROCHEMI - A division of HK
WENTWORTH LTD
KINGSBURY PARK,
MIDLAND ROAD
SWADLINCOTE, DERBYSHIRE
DE11 0AN
+44(0)1283 222111
+44(0) 1283 550 177
EMERGENCY TELEPHONE +44(0)1283 222 111 between 8.30 am - 5.00pm Mon - Fri

2 HAZARDS IDENTIFICATION

Highly flammable.
Vapours may cause drowsiness and dizziness.
Irritating to skin.
May cause sensitisation by skin contact.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
CLASSIFICATION Xi;R38. R43. F;R11. N;R50/53. R67.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
CYCLOHEXANE	203-806-2	110-82-7	10-30%	F;R11 Xn;R65 Xi;R38 R67 N;R50/53
PROPAN-2-OL	200-661-7	67-63-0	10-30%	F;R11 Xi;R36 R67
1-METHOXY-2-PROPANOL	203-539-1	107-98-2	10-30%	R10
1,1,1,2-TETRAFLUOROETHANE R134A	212-377-0	811-97-2	10-30%	-
BUTYL ACETATE -norm	204-658-1	123-86-4	1-5%	R10 R66 R67
HEXANE MIXTURE OF ISOMERS (MAX 5% n-HEXANE (203-777-6))			1-5%	F;R11 Xn;R65 Xi;R38 R67 N;R51/53
HEPTANE	205-563-8	142-82-5	1-5%	F;R11 Xn;R65 Xi;R38 R67 N;R50/53
d-LIMONENE	227-813-5	5989-27-5	1-5%	R10 R43 Xi;R38 N;R50/53
1,1,1-DIFLUOROETHANE R152A	200-866-1	75-37-6	1-5%	F+;R12.
HEXANE-norm	203-777-6	110-54-3	< 1%	F;R11 Repr3;R62 Xn;R65,R48/20 Xi;R38 R67 N;R51/53

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

COMPOSITION COMMENTS

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

4 FIRST-AID MEASURES

NOTES TO THE PHYSICIAN

Treat symptomatically

INHALATION

Move the exposed person to fresh air at once. Keep the affected person warm and at rest. Get prompt medical attention.

Get medical attention.

LEAD FREE FLUX REMOVER**INGESTION**

Not relevant.

SKIN CONTACT

Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

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: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

SPECIAL FIRE FIGHTING PROCEDURES

Move container from fire area if it can be done without risk.

UNUSUAL FIRE & EXPLOSION HAZARDS

Aerosol cans may explode in a fire.

6 ACCIDENTAL RELEASE MEASURES**SPILL CLEAN UP METHODS**

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

7 HANDLING AND STORAGE**USAGE PRECAUTIONS**

Avoid spilling, skin and eye contact. Provide good ventilation.

STORAGE PRECAUTIONS

Store at moderate temperatures in dry, well ventilated area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
1-METHOXY-2-PROPANOL	WEL	100 ppm(Sk)	375 mg/m3(Sk)	150 ppm(Sk)	560 mg/m3(Sk)	
BUTYL ACETATE -norm	WEL	150 ppm	724 mg/m3	200 ppm	966 mg/m3	
CYCLOHEXANE	WEL	100 ppm	350 mg/m3	300 ppm	1050 mg/m3	
HEPTANE	WEL	500 ppm				
HEXANE-norm	WEL	20 ppm	72 mg/m3			
PROPAN-2-OL	WEL	400 ppm	999 mg/m3	500 ppm	1250 mg/m3	

WEL = Workplace Exposure Limit.

PROTECTIVE EQUIPMENT**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.

LEAD FREE FLUX REMOVER

HYGIENE MEASURES

Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. DO NOT SMOKE IN WORK AREA!

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Aerosol Liquid		
COLOUR	Colourless		
ODOUR	Characteristic Lemon		
VOLATILITY DESCRIPTION	Volatile.		
SOLUBILITY	Insoluble in water		
BOILING POINT (°C)	>80	MELTING POINT (°C)	<-29
RELATIVE DENSITY	0.780 @ 20 °c	VAPOUR PRESSURE	11.52 kPa @ 20 °c
FLASH POINT (°C)	0 CC (Closed cup).	AUTO IGNITION TEMPERATURE (°C)	> 200
FLAMMABILITY LIMIT - LOWER(%)	0.6	FLAMMABILITY LIMIT - UPPER(%)	8.3

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Avoid contact with acids and alkalies.

11 TOXICOLOGICAL INFORMATION

INHALATION

Vapours may cause headache, fatigue, dizziness and nausea. High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

SKIN CONTACT

May cause sensitisation by skin contact. Prolonged or repeated exposure may cause severe irritation. Product has a defatting effect on skin. Prolonged contact may cause dryness of the skin.

EYE CONTACT

Irritating to eyes.

Other Health Effects

This substance has no evidence of carcinogenic properties.

ROUTE OF ENTRY

Skin and/or eye contact. Inhalation.

Name	HEPTANE
Toxic Dose 1 - LD 50	222 mg/kg (ivn-mouse)
Toxic Conc. - LC 50	103 ppm/4h (inh-rat)
Name	CYCLOHEXANE
Toxic Dose 1 - LD 50	12705 mg/kg (oral rat)
Toxic Dose 2 - LD 50	813 mg/kg (oral-mouse)
Name	HEXANE-norm
Toxic Dose 1 - LD 50	28700 mg/kg (oral rat)
Toxic Conc. - LC 50	48000 ppm/4h (inh-rat)
Name	PROPAN-2-OL
Toxic Dose 1 - LD 50	5045 mg/kg (oral rat)
Toxic Dose 2 - LD 50	3600 mg/kg (oral-mouse)
Toxic Conc. - LC 50	47-73 mg/l/4h (inh-rat)
Name	1-METHOXY-2-PROPANOL
Toxic Dose 1 - LD 50	5200 mg/kg (oral rat)
Toxic Dose 2 - LD 50	11700 mg/kg (oral-mouse)
Name	BUTYL ACETATE -norm
Toxic Dose 1 - LD 50	14,100 mg/kg (oral rat)

LEAD FREE FLUX REMOVER

Name d-LIMONENE
Toxic Dose 1 - LD 50 >5000 mg/kg (oral rat)

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Dangerous for the environment if discharged into watercourses.

Name	HEPTANE
LC 50, 96 Hrs, FISH mg/l	4.924
Name	CYCLOHEXANE
LC 50, 96 Hrs, FISH mg/l	42.3
Name	HEXANE-norm
	PROPAN-2-OL
LC 50, 96 Hrs, FISH mg/l	9600
EC 50, 48 Hrs, DAPHNIA, mg/l	10000
Name	1-METHOXY-2-PROPANOL
LC 50, 96 Hrs, FISH mg/l	20800
EC 50, 48 Hrs, DAPHNIA, mg/l	23300
Name	BUTYL ACETATE -norm
LC 50, 96 Hrs, FISH mg/l	>96
EC 50, 48 Hrs, DAPHNIA, mg/l	72.8
IC 50, 72 Hrs, ALGAE, mg/l	674
Name	d-LIMONENE
EC 50, 48 Hrs, DAPHNIA, mg/l	12.3
Mobility	

The product has poor water-solubility.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements. Empty containers must not be burned because of explosion hazard.

14 TRANSPORT INFORMATION



UK ROAD CLASS	2		
PROPER SHIPPING NAME	AEROSOLS		
UN NO. ROAD	1950	UK ROAD PACK GR.	N/A
ADR CLASS NO.	2	ADR CLASS	Class 2: Gases
ADR PACK GROUP	N/A	ADR LABEL NO.	2.1
CEFIC TEC(R) NO.	20G5F	RID CLASS NO.	2
RID PACK GROUP	N/A	UN NO. SEA	1950
IMDG CLASS	2.1	IMDG PACK GR.	N/A
EMS	F-D, S-U	MFAG	See Guide
MARINE POLLUTANT	No.	UN NO. AIR	1950
AIR CLASS	2.1	AIR PACK GR.	N/A

15 REGULATORY INFORMATION

SYMBOLS

LEAD FREE FLUX REMOVER



Irritant



Highly Flammable



Dangerous for the environment

CONTAINS

d-LIMONENE

RISK PHRASES

- R11 Highly flammable.
- R38 Irritating to skin.
- R43 May cause sensitisation by skin contact.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 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.
- S24 Avoid contact with skin.
- S37 Wear suitable gloves.
- S51 Use only in well-ventilated areas.
- S57 Use appropriate containment to avoid environmental contamination.
- S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations.

The Control of Substances Hazardous to Health Regulations 1988.

ENVIRONMENTAL LISTING

Rivers (Prevention of Pollution) Act 1961. Control of Pollution Act 1974.

EU DIRECTIVES

System of specific information relating to Dangerous Preparations. 2001/58/EC.

Dangerous Substance Directive 67/548/EEC.

Dangerous Preparations Directive 1999/45/EC.

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.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

16 OTHER INFORMATION

REVISION COMMENTS

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

ISSUED BY

Helen O'Reilly

REVISION DATE

SEPTEMBER 2008

REV. NO./REPL. SDS

2

GENERATED

SDS NO.

11998

LEAD FREE FLUX REMOVER

RISK PHRASES IN FULL

R10	Flammable.
R11	Highly flammable.
R12	Extremely flammable.
R36	Irritating to eyes.
R38	Irritating to skin.
R43	May cause sensitisation by skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62	Possible risk of impaired fertility.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
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.