



## SAFETY DATA SHEET LEAD FREE CONFORMAL COATING

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

**PRODUCT NAME** LEAD FREE CONFORMAL COATING  
**PRODUCT NO.** LFCC-a  
ELFCC400ML  
ZE  
**APPLICATION** Manufacture of electrical equipment  
**SUPPLIER** ELECTROLUBE. A division of  
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### 2 HAZARDS IDENTIFICATION

Extremely flammable

Harmful by inhalation and in contact with skin.

Irritating to skin.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**CLASSIFICATION (1999/45)** Xn;R20/21. Xi;R38. F+;R12. N;R51/53.

#### ENVIRONMENT

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Dispose of waste and residues in accordance with local authority requirements.

#### PHYSICAL AND CHEMICAL HAZARDS

Aerosol containers can explode when heated, due to excessive pressure build-up. When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content %	Classification (67/548/EEC)
DIMETHYL ETHER	204-065-8	115-10-6	30-60%	F+;R12
XYLENE	215-535-7	1330-20-7	10-30%	R10 Xn;R20/21 Xi;R38
CYCLOHEXANE	203-806-2	110-82-7	10-30%	F;R11 Xn;R65 Xi;R38 R67 N;R50/53
1-METHOXY-2-PROPANOL	203-539-1	107-98-2	5-10%	R10 R67
ETHYLBENZENE	202-849-4	100-41-4	1-5%	F;R11 Xn;R20
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
HEXANE-norm	203-777-6	110-54-3	<0.5%	F;R11 Repr. Cat. 3;R62 Xn;R48/20,R65 Xi;R38 R67 N;R51/53
BENZENE, C10-13-ALKYL DERIVATIVES	267-051-0	67774-74-7	<0.5%	N;R50.

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

## LEAD FREE CONFORMAL COATING

### 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.

#### INGESTION

Rinse mouth thoroughly. Provide rest, warmth and fresh air.

#### 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

Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapours.

#### 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

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

#### STORAGE PRECAUTIONS

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
1-METHOXY-2-PROPANOL	WEL	100 ppm	375 mg/m3	150 ppm	560 mg/m3	Sk
CYCLOHEXANE	WEL	100 ppm	350 mg/m3	300 ppm	1050 mg/m3	
DIMETHYL ETHER	WEL	400 ppm	766 mg/m3	500 ppm	958 mg/m3	
ETHYLBENZENE	WEL	100 ppm(Sk)	441 mg/m3(Sk)	125 ppm(Sk)	552 mg/m3(Sk)	
HEPTANE	WEL	500 ppm				
XYLENE	WEL	50 ppm	220 mg/m3	100 ppm	441 mg/m3	Sk

WEL = Workplace Exposure Limit.  
 Sk = Can be absorbed through skin.

#### INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

#### PROTECTIVE EQUIPMENT

## LEAD FREE CONFORMAL COATING



### 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 suitable protective gloves if risk of skin contact. 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

Use eye protection.

### 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. When using do not eat, drink or smoke.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Aerosol Liquid
COLOUR	Colourless
ODOUR	Solvent.
VOLATILITY DESCRIPTION	Volatile.
SOLUBILITY	Insoluble in water
BOILING POINT (°C)	137 - 143 (278.6 - 289.4 F)
MELTING POINT (°C)	-24 (-11.2 F)
RELATIVE DENSITY	0.780
FLASH POINT (°C)	25 (77 F) OC (Open cup).
AUTO IGNITION	480 (896 F)
TEMPERATURE (°C)	
FLAMMABILITY LIMIT - LOWER(%)	1.1
FLAMMABILITY LIMIT - UPPER(%)	7

## 10 STABILITY AND REACTIVITY

### STABILITY

Stable under normal temperature conditions.

### CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Avoid contact with: Strong oxidising agents. Strong alkalis. Strong mineral acids.

### HAZARDOUS DECOMPOSITION PRODUCTS

Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## 11 TOXICOLOGICAL INFORMATION

### INHALATION

Harmful by inhalation. High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting. Vapours may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system.

### SKIN CONTACT

Harmful in contact with skin. Irritating to skin. May cause allergic contact eczema. 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.

### LEAD FREE CONFORMAL COATING

#### ROUTE OF ENTRY

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	XYLENE
Toxic Dose 1 - LD 50	4300 mg/kg (oral rat)
Toxic Dose 2 - LD 50	2000 mg/kg (oral-rbt)
Toxic Conc. - LC 50	22.1 mg/l/4h (inh-rat)
Name	PROPAN-2-OL
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)

#### 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	XYLENE
LC 50, 96 Hrs, Fish mg/l	2.6-8.4
EC 50, 48 Hrs, Daphnia, mg/l	1.0-4.7
Name	PROPAN-2-OL
Name	1-METHOXY-2-PROPANOL
LC 50, 96 Hrs, Fish mg/l	20800
EC 50, 48 Hrs, Daphnia, mg/l	23300

#### 13 DISPOSAL CONSIDERATIONS

##### DISPOSAL METHODS

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

#### 14 TRANSPORT INFORMATION



PROPER SHIPPING NAME	AEROSOLS (CYCLOHEXANE)
PROPER SHIPPING NAME	CONSUMER COMMODITY
UN NO. ROAD	1950
ADR CLASS NO.	2
ADR CLASS	Class 2: Gases
ADR PACK GROUP	N/A
ADR LABEL NO.	2.1
UN NO. SEA	1950
IMDG CLASS	2.1
IMDG PACK GR.	N/A
EMS	F-D, S-U

## LEAD FREE CONFORMAL COATING

UN NO. AIR 1950  
AIR CLASS 2.1  
AIR PACK GR. N/A

### 15 REGULATORY INFORMATION

#### LABELLING



Harmful



Extremely Flammable



Dangerous for the environment

CONTAINS XYLENE

#### RISK PHRASES

R12	Extremely flammable.
R38	Irritating to skin.
R20/21	Harmful by inhalation and in contact with skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### SAFETY PHRASES

A1	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
A2	Do not spray on a naked flame or any incandescent material.
S2	Keep out of the reach of children.
S16	Keep away from sources of ignition - No smoking.
S23	Do not breathe vapour/spray.
S24	Avoid contact with skin.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S36/37	Wear suitable protective clothing and gloves.

#### UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations.

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

#### 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/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.

#### APPROVED CODE OF PRACTICE

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

#### 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

## LEAD FREE CONFORMAL COATING

### ISSUED BY

Helen O'Reilly

### REVISION DATE

NOVEMBER 2010

### REV. NO./REPL. SDS

2

### GENERATED

### SDS NO.

11999

### RISK PHRASES IN FULL

R12	Extremely flammable.
R10	Flammable.
R20/21	Harmful by inhalation and in contact with skin.
R20	Harmful by inhalation.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65	Harmful: may cause lung damage if swallowed.
R11	Highly flammable.
R38	Irritating to skin.
R62	Possible risk of impaired fertility.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	Vapours may cause drowsiness and dizziness.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R50	Very toxic to aquatic organisms.

### 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.