

SAFETY DATA SHEET LEAD FREE FLUX CLENE

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

1.1. Product identifier

Product name LEAD FREE FLUX CLENE
Product No. LFFC, ELFFC400DB, 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 H K WENTWORTH PTY LIMITED
P.O. BOX 339
BROOKVALE, NSW 2100
AUSTRALIA
TEL: 02 9938 1566
FAX: 02 9938 1467
GENERAL MANAGER

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. Aerosol 1 - H222
Human health	Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; STOT SE 3 - H336
Environment	Aquatic Acute 1 - H400; Aquatic Chronic 1 - H410

Classification (1999/45/EEC)

Xi; R36/38. F+; R12. N; R50/53. R67.

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

2.2. Label elements

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



Signal Word

Danger

Hazard Statements

H222	Extremely flammable aerosol.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.

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.

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Supplementary Precautionary Statements

P211	Do not spray on an open flame or other ignition source.
P251	Pressurized container: Do not pierce or burn, even after use.
P261	Avoid breathing vapour/spray.
P332+313	If skin irritation occurs: Get medical advice/attention.
P410+412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

CYCLOHEXANE	30-60%
CAS-No.: 110-82-7	EC No.: 203-806-2
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) F;R11 Xn;R65 Xi;R38 R67 N;R50/53
PROPAN-2-OL	10-30%
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
1-METHOXY-2-PROPANOL	10-30%
CAS-No.: 107-98-2	EC No.: 203-539-1
Classification (EC 1272/2008) Flam. Liq. 3 - H226 STOT SE 3 - H336	Classification (67/548/EEC) R10 R67
HEXANE MIXTURE OF ISOMERS (MAX 5% n-HEXANE (203-777-6))	1-5%
CAS-No.: -	EC No.: -
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Classification (67/548/EEC) F;R11 Xn;R65 Xi;R38 R67 N;R51/53

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HEPTANE		1-5%
CAS-No.: 142-82-5	EC No.: 205-563-8	
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) F;R11 Xn;R65 Xi;R38 R67 N;R50/53	
DIMETHYL ETHER		1-5%
CAS-No.: 115-10-6	EC No.: 204-065-8	
Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12	
HEXANE-norm		< 1%
CAS-No.: 110-54-3	EC No.: 203-777-6	
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Repr. 2 - H361f STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Classification (67/548/EEC) F;R11 Repr. Cat. 3;R62 Xn;R48/20,R65 Xi;R38 R67 N;R51/53	

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

Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention. Get medical attention.

Ingestion

Immediately rinse mouth and provide 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.

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

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

Treat symptomatically

SECTION 5: FIREFIGHTING MEASURES

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5.1. Extinguishing media

Extinguishing media

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

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.

Unusual Fire & Explosion Hazards

Aerosol cans may explode in a fire.

Specific hazards

Aerosol containers can explode when heated, due to excessive pressure build-up. Vapours may be ignited by a spark, a hot surface or an ember.

5.3. Advice for firefighters

Special Fire Fighting Procedures

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

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

Wear protective clothing as described in Section 8 of this safety data sheet.

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 in vermiculite, dry sand or earth and place into containers.

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. Provide good ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Store at moderate temperatures in dry, well ventilated area.

7.3. 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

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
1-METHOXY-2-PROPANOL	WEL	100 ppm	375 mg/m ³	150 ppm	560 mg/m ³	Sk
CYCLOHEXANE	WEL	100 ppm	350 mg/m ³	300 ppm	1050 mg/m ³	
DIMETHYL ETHER	WEL	400 ppm	766 mg/m ³	500 ppm	958 mg/m ³	
HEPTANE	WEL	500 ppm				
PROPAN-2-OL	WEL	400 ppm	999 mg/m ³	500 ppm	1250 mg/m ³	

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through skin.

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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			
Freshwater	140.9	mg/l	
Marinewater	140.9	mg/l	
Sediment	552	mg/kg	
Soil	28	mg/kg	

8.2. Exposure controls

Protective equipment



Engineering measures

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

Respiratory equipment

In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment.

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

Wear approved chemical safety goggles where eye exposure is reasonably probable.

Other Protection

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

Hygiene measures

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Aerosol. Liquid
Colour	Colourless.
Odour	peppermint
Solubility	Insoluble in water
Initial boiling point and boiling range (°C)	>80
Melting point (°C)	-29
Relative density	0.780 @ 20 °c
Vapour pressure	11.5 kPa @ 20 °c
Flash point (°C)	0 CC (Closed cup).
Auto Ignition Temperature (°C)	> 250
Flammability Limit - Lower(%)	0.6
Flammability Limit - Upper(%)	8.3

9.2. Other information

Not available.

Volatility Description Volatile

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No specific reactivity hazards associated with this product.

10.2. Chemical stability

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Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

Not determined.

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials To Avoid

Strong acids. Strong alkalis. Strong oxidising substances.

10.6. Hazardous decomposition products

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

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Other Health Effects

This substance has no evidence of carcinogenic properties.

Inhalation

May cause irritation to the respiratory system. 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

Irritating to skin. 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.

Route of entry

Inhalation. Skin and/or eye contact.

Toxicological information on ingredients.

Toxic Dose 1 - LD 50

222 mg/kg (ivn-mouse)

Toxic Conc. - LC 50

103 ppm/4h (inh-rat)

HEPTANE (CAS: 142-82-5)

Toxic Dose 1 - LD 50

12705 mg/kg (oral rat)

Toxic Dose 2 - LD 50

813 mg/kg (oral-mouse)

CYCLOHEXANE (CAS: 110-82-7)

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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1-METHOXY-2-PROPANOL (CAS: 107-98-2)

Toxic Dose 1 - LD 50
5200 mg/kg (oral rat)
Toxic Dose 2 - LD 50
11700 mg/kg (oral-mouse)

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Dangerous for the environment if discharged into watercourses.

12.1. Toxicity

Ecological information on ingredients.

HEPTANE (CAS: 142-82-5)

LC 50, 96 Hrs, Fish mg/l
4.924

CYCLOHEXANE (CAS: 110-82-7)

LC 50, 96 Hrs, Fish mg/l
42.3

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

1-METHOXY-2-PROPANOL (CAS: 107-98-2)

LC 50, 96 Hrs, Fish mg/l
20800
EC 50, 48 Hrs, Daphnia, mg/l
23300

12.2. Persistence and degradability

Degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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

SECTION 14: TRANSPORT INFORMATION

General

This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR and IMDG. These provisions allow transport of aerosols of less than 1litre packed in cartons of less than 30kg gross to be exempt from control providing that they are labelled in accordance with the requirements of these regulations to show that they are being transported as Limited Quantities. Aerosols not so packed must show the following

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14.1. UN number

UN No. (ADR/RID/ADN)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950

14.2. UN proper shipping name

Proper Shipping Name AEROSOLS (CYCLOHEXANE)

14.3. Transport hazard class(es)

ADR/RID/ADN Class	2.1
ADR/RID/ADN Class	Class 2: Gases
ADR Label No.	2.1
IMDG Class	2.1
ICAO Class/Division	2.1
Transport Labels	



14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant



14.6. Special precautions for user

EMS	F-D, S-U
Tunnel Restriction Code	(D)

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

No information required.

SECTION 15: REGULATORY INFORMATION

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

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

Approved Code Of Practice

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

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Guidance Notes

Workplace Exposure Limits EH40.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Issued By	Helen O'Reilly
Revision Date	NOVEMBER 2012
Revision	3
SDS No.	11939
Risk Phrases In Full	
R12	Extremely flammable.
R10	Flammable.
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
R36/38	Irritating to eyes and skin.
R36	Irritating to eyes.
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.
Hazard Statements In Full	
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H222	Extremely flammable aerosol.
H220	Extremely flammable gas.
H226	Flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.
H410	Very toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.

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.