



SAFETY DATA SHEET FLUXCLENE CLEANING SOLVENT (Combi)

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

1.1. Product identifier

Product name FLUXCLENE CLEANING SOLVENT (Combi)
Product No. FLU-db, EFLU400DB, 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
+44 (0)1530 419600
+44 (0)1530 416640
info@hkw.co.uk

1.4. Emergency telephone number

+44 (0)1530 419600 between 8.30am - 5.00pm Mon – Fri

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Xi;R36/38. R43. F+;R12. N;R50/53. R67.

Environment

Very toxic 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. Use appropriate containment to avoid environmental contamination. Avoid release to the environment. Refer to special instructions/safety data sheets. 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.

2.2. Label elements

Contains Orange Terpenes

Labelling



Irritant



Extremely flammable



Dangerous for the environment

Risk Phrases

R12	Extremely flammable.
R36/38	Irritating to eyes and 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.

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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.
S9	Keep container in a well-ventilated place.
S16	Keep away from sources of ignition - No smoking.
S23	Do not breathe vapour/spray.
S24/25	Avoid contact with skin and eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37	Wear suitable gloves.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S57	Use appropriate containment to avoid environmental contamination.
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

2.3. Other hazards

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

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HEXANE MIXTURE OF ISOMERS (MAX 5% n-HEXANE (203-777-6))		5-10%
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	
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	
Orange Terpenes		1-5%
CAS-No.: 8028-48-6	EC No.: 232-433-8	
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) Xn;R65. Xi;R38. N;R50/53. R10,R43.	
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

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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.

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.

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

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. The product is flammable, and heating may generate vapours which may form explosive vapour/air mixtures.

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

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. 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. The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See section 12 as well. 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.

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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	
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.

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



Process conditions

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station.

Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment

In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment. No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit. Use respiratory equipment with combination filter, type A2/P3. EN14387

Hand protection

Protective gloves should be used if there is a risk of direct contact or splash. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Butyl rubber gloves are recommended. Gloves should conform to EN374

Eye protection

Wear approved, tight fitting safety glasses where splashing is probable. EN166

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. 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!**

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Aerosol. Liquid
Colour	Colourless.

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Odour	Characteristic. Lemon.
Solubility	Insoluble in water
Initial boiling point and boiling range	>80 (176 F)
Melting point (°C)	<-29 (-20.2 F)
Relative density	0.780 @ 20 °C (68 F)
Vapour pressure	11.52 kPa @ 20 °C (68 F)
Flash point	0 (32 F) CC (Closed cup).
Auto Ignition Temperature (°C)	> 200 (392 F)
Flammability Limit - Lower(%)	0.6
Flammability Limit - Upper(%)	8.3

9.2. Other information

Volatility Description	Volatile
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SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

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 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

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.

Route of entry

Skin and/or eye contact. Inhalation.

Toxicological information on ingredients.**HEPTANE (CAS: 142-82-5)****Toxic Dose 1 - LD 50**

222 mg/kg (ivn-mouse)

Toxic Conc. - LC 50

103 ppm/4h (inh-rat)

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HEXANE-norm (CAS: 110-54-3)

Toxic Dose 1 - LD 50

28700 mg/kg (oral rat)

Toxic Conc. - LC 50

48000 ppm/4h (inh-rat)

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

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)

Orange Terpenes (CAS: 8028-48-6)

Acute toxicity:

Acute Toxicity (Oral LD50)

5300 mg/kg Rat

Acute Toxicity (Dermal LD50)

> 5000 mg/kg Rabbit

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Dangerous for the environment if discharged into watercourses.

12.1. Toxicity

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Ecological information on ingredients.

HEPTANE (CAS: 142-82-5)

LC 50, 96 Hrs, Fish mg/l
4.924

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

Orange Terpenes (CAS: 8028-48-6)

Acute Toxicity - Fish

LC50 96 hours 0.71 mg/l Pimephales promelas (Fat-head Minnow)

Acute Toxicity - Aquatic Invertebrates

EC50 0.4 mg/l Daphnia magna

Acute Toxicity - Aquatic Plants

IC50 4 mg/l Selenastrum capricornutum

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

General information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

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

14.1. UN number

UN No. (ADR/RID/ADN) 1950

UN No. (IMDG) 1950

UN No. (ICAO) 1950

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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

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.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

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.

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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.

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

15.2. Chemical Safety Assessment**SECTION 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	NOVEMBER 2012
Revision	6
SDS No.	10372

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.
R43	May cause sensitisation by skin contact.
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

H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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.