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 number FLU-db, EFLU400DB, ZE

1.2. Relevant identified uses of the substance or mixture and uses advised against

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

Manufacturer

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

Emergency telephone

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards

Aerosol 1 - H222, H229

Health hazards

Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H336

Environmental hazards

Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

Classification (67/548/EEC or 1999/45/EC)

Xi;R36/38. R43. F+;R12. N;R50/53. R67.

Environmental

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 to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Physicochemical

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

Pictogram



FLUXCLENE CLEANING SOLVENT (Combi)

Signal word Danger

Hazard statements

H222 Extremely flammable aerosol.
H315 Causes skin irritation.
H229 Pressurised container: may burst if heated
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P280 Wear protective gloves, eye and face protection.

Contains CYCLOHEXANE, 1-METHOXY-2-PROPANOL, PROPAN-2-OL, HEXANE MIXTURE OF ISOMERS (MAX 5% n-HEXANE (203-777-6)), HEPTANE, Orange Terpenes

Supplementary precautionary statements

P261 Avoid breathing vapour/spray.
P305+P351+P338 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.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria. The above phrases are the risks associated with the product

SECTION 3: Composition/information on ingredients

3.2. Mixtures

CYCLOHEXANE **30-60%**

CAS number: 110-82-7 **EC number:** 203-806-2 **REACH registration number:** 01-2119463273-41-XXXX
M factor (Acute) = 1 **M factor (Chronic) =** 1

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225	F;R11 Xn;R65 Xi;R38 R67 N;R50/53
Skin Irrit. 2 - H315	
STOT SE 3 - H336	
Asp. Tox. 1 - H304	
STOT SE 3 - H336	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

1-METHOXY-2-PROPANOL **10-30%**

CAS number: 107-98-2 **EC number:** 203-539-1 **REACH registration number:** 01-2119457435-35-0000

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226	R10 R67
STOT SE 3 - H336	
STOT SE 3 - H336	

FLUXCLENE CLEANING SOLVENT (Combi)

PROPAN-2-OL **10-30%**

CAS number: 67-63-0 **EC number:** 200-661-7 **REACH registration number:** 01-2119457558-25-XXXX

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225	F;R11 Xi;R36 R67
Eye Irrit. 2 - H319	
STOT SE 3 - H336	
STOT SE 3 - H336	

HEXANE MIXTURE OF ISOMERS (MAX 5% n-HEXANE (203-777-6)) **5-10%**

CAS number: **EC number:**

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225	F;R11 Xn;R65 Xi;R38 R67 N;R51/53
Skin Irrit. 2 - H315	
STOT SE 3 - H336	
Asp. Tox. 1 - H304	

Orange Terpenes **1-5%**

CAS number: 8028-48-6 **EC number:** 232-433-8 **REACH registration number:** 01-2119529223-47-XXXX

M factor (Acute) = 1

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226	Xn;R65. Xi;R38. N;R50/53. R10,R43.
Skin Irrit. 2 - H315	
Skin Sens. 1 - H317	
Asp. Tox. 1 - H304	
Aquatic Acute 1 - H400	
Aquatic Chronic 2 - H411	

HEPTANE **1-5%**

CAS number: 142-82-5 **EC number:** 205-563-8

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225	F;R11 Xn;R65 Xi;R38 R67 N;R50/53
Skin Irrit. 2 - H315	
STOT SE 3 - H336	
Asp. Tox. 1 - H304	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

FLUXCLENE CLEANING SOLVENT (Combi)

HEXANE-norm	**<1%**
CAS number: 110-54-3 **EC number:** 203-777-6	
M factor (Acute) = 1	

Classification	**Classification (67/548/EEC or 1999/45/EC)**
Flam. Liq. 2 - H225	F;R11 Repr. Cat. 3;R62 Xn;R48/20,R65 Xi;R38 R67 N;R51/53
Skin Irrit. 2 - H315	
Repr. 2 - H361f	
STOT SE 3 - H336	
STOT RE 2 - H373	
Asp. Tox. 1 - H304	
Aquatic Acute 1 - H400	
Aquatic Chronic 2 - H411	

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

Composition comments No classified ingredients, or those having occupational exposure limits, present above the levels of disclosure.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

If tissues are frozen, do not remove clothes but rinse with plenty of lukewarm water. Get medical attention.

Inhalation

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

Ingestion

Not relevant.

Skin contact

Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

Eye contact

Remove any contact lenses and open eyelids wide apart. Rinse with water. 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

Notes for the doctor

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguish with the following media: Dry chemicals, sand, dolomite etc. Water spray, fog or mist. Powder.

5.2. Special hazards arising from the substance or mixture

Specific hazards

Containers can burst violently or 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. Heating may generate flammable vapours.

Hazardous combustion products

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

5.3. Advice for firefighters

Protective actions during firefighting

Move containers from fire area if it can be done without risk. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

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

6.2. Environmental precautions

Environmental precautions

Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers.

6.4. Reference to other sections

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 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store at moderate temperatures in dry, well ventilated area.

7.3. Specific end use(s)

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

Occupational exposure limits

FLUXCLENE CLEANING SOLVENT (Combi)

CYCLOHEXANE

Long-term exposure limit (8-hour TWA): WEL 100 ppm 350 mg/m3
Short-term exposure limit (15-minute): WEL 300 ppm 1050 mg/m3

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m3
Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m3

HEPTANE

Long-term exposure limit (8-hour TWA): WEL 500 ppm
Short-term exposure limit (15-minute): WEL

HEXANE-norm

Long-term exposure limit (8-hour TWA): WEL 20 ppm 72 mg/m3
Short-term exposure limit (15-minute): WEL

WEL = Workplace Exposure Limit

PROPAN-2-OL (CAS: 67-63-0)

DNEL	Industry - Dermal; : 888 mg/kg/day Industry - Inhalation; : 500 mg/m3 Consumer - Dermal; : 319 mg/kg/day Consumer - Inhalation; : 89 mg/m3 Consumer - Oral; : 26 mg/kg/day
PNEC	- Fresh water; 140.9 mg/l - Marine water; 140.9 mg/l - Sediment; 552 mg/kg - Soil; 28 mg/kg

8.2. Exposure controls

Protective equipment

Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. EN166

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Butyl rubber. To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection

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

Hygiene measures

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

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3. EN14387

SECTION 9: Physical and Chemical Properties

FLUXCLENE CLEANING SOLVENT (Combi)

9.1. Information on basic physical and chemical properties

Appearance
Aerosol. Liquid.

Colour
Colourless.

Odour
Characteristic. Lemon.

Melting point
-29°C/-20.2°F

Initial boiling point and range
80°C/176°F @

Flash point
0°C/32°F CC (Closed cup).

Upper/lower flammability or explosive limits
Lower flammable/explosive limit: 0.6 Upper flammable/explosive limit: 8.3

Vapour pressure
11.52 kPa @ 20°C/68°F

Relative density
0.780 @ 20°C/68°F

Solubility(ies)
Insoluble in water.

Auto-ignition temperature
200°C/392°F

9.2. Other information

Other information
None.

Volatility
Volatile.

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability
Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Not determined. 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 agents.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

FLUXCLENE CLEANING SOLVENT (Combi)

Other health effects

There is no evidence that the product can cause cancer.

Inhalation

Vapours may cause headache, fatigue, dizziness and nausea. Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, 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.

1-METHOXY-2-PROPANOL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)

4,016.0

Species

Rat

ATE oral (mg/kg)

4,016.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)

3000.0

Species

Rabbit

ATE dermal (mg/kg)

3000.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)

54.6

Species

Rat

ATE inhalation (vapours mg/l)

54.6

FLUXCLENE CLEANING SOLVENT (Combi)

PROPAN-2-OL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)

4,700.0

Species

Rat

ATE oral (mg/kg)

4,700.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)

12800

Species

Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)

46.5

Species

Rat

ATE inhalation (vapours mg/l)

46.5

Inhalation

Vapours may cause headache, fatigue, dizziness and nausea.

Eye contact

Irritating to eyes.

Acute and chronic health hazards

Irritation of eyes and mucous membranes. Narcotic effect. Central nervous system depression.

Route of entry

Skin and/or eye contact Skin absorption Ingestion

Target organs

Central nervous system Eyes Skin Respiratory system, lungs

Medical symptoms

Irritation of eyes and mucous membranes. Dilated pupils. Rhinitis (inflammation of the nasal mucous membranes). General respiratory distress, unproductive cough. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo.

FLUXCLENE CLEANING SOLVENT (Combi)

Orange Terpenes

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)

5,000.0

Species

Rat

ATE oral (mg/kg)

5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)

5000.0

Species

Rabbit

ATE dermal (mg/kg)

5000.0

SECTION 12: Ecological Information

Ecotoxicity

Dangerous for the environment if discharged into watercourses.

12.1. Toxicity

FLUXCLENE CLEANING SOLVENT (Combi)

Ecological information on ingredients.

1-METHOXY-2-PROPANOL

Acute toxicity - fish

LC_{50}, 96 hours: 20800 mg/l, Fish

Acute toxicity - aquatic invertebrates

EC_{50}, 48 hours: 23300 mg/l, Daphnia magna

PROPAN-2-OL

Acute toxicity - fish

LC50, 96 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates

EC_{50}, 48 hours: 13299 mg/l, Daphnia magna

Acute toxicity - aquatic plants

EC_{50}, 72 hours: > 1.000 mg/l, Scenedesmus subspicatus

Acute toxicity - microorganisms

EC_{50}, >: > 1.000 mg/l, Activated sludge

Orange Terpenes

Acute aquatic toxicity

$LE(C)_{50}$

0.1 < L(E)C50 ≤ 1 0.1 < L(E)C50 ≤ 1

M factor (Acute)

1

Acute toxicity - fish

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

Acute toxicity - aquatic invertebrates

EC_{50}, : 0.4 mg/l, Daphnia magna EC_{50}, 48 hours: mg/l, Daphnia magna

Acute toxicity - aquatic plants

IC_{50}, : 4 mg/l, Selenastrum capricornutum

HEPTANE

Acute aquatic toxicity

$LE(C)_{50}$

0.1 < L(E)C50 ≤ 1

Acute toxicity - fish

LC_{50}, 96 hours: 4.924 mg/l, Fish

Chronic aquatic toxicity

NOEC

0.01 < NOEC ≤ 0.1

12.2. Persistence and degradability

Persistence and degradability

There are no data on the degradability of this product.

Ecological information on ingredients.

PROPAN-2-OL

Persistence and degradability

The product is readily biodegradable.

12.3. Bioaccumulative potential

No data available on bioaccumulation.

FLUXCLENE CLEANING SOLVENT (Combi)

Ecological information on ingredients.

PROPAN-2-OL

The product does not contain any substances expected to be bioaccumulating.

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

PROPAN-2-OL

This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

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

Disposal methods

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Empty containers must not be punctured or incinerated because of the risk of an explosion.

SECTION 14: Transport information

14.1. UN number

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

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AEROSOLS (CYCLOHEXANE)
Proper shipping name (IMDG)	AEROSOLS (CYCLOHEXANE)
Proper shipping name (ICAO)	AEROSOLS (CYCLOHEXANE)
Proper shipping name (ADN)	AEROSOLS (CYCLOHEXANE)
Proper Shipping Name (DOT)	

14.3. Transport hazard class(es)

ADR/RID class	2.1
ADR/RID subsidiary risk	
ADR/RID label	2.1
IMDG class	2.1
IMDG subsidiary risk	
ICAO class/division	2.1
ICAO subsidiary risk	

Transport labels

FLUXCLENE CLEANING SOLVENT (Combi)

14.4. Packing group

Not applicable.

ADR/RID packing group

IMDG packing group

ICAO packing group

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

Yes.

14.6. Special precautions for user

EmS	F-D, S-U
Emergency Action Code	
Hazard Identification Number (ADR/RID)	
Tunnel restriction code	(D)

Markings

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

Not applicable.

SECTION 15: Regulatory information

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

EU legislation

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 (as amended). 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) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Guidance

Workplace Exposure Limits EH40.

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are known for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Issued by	Grace Claypole
Revision date	18/03/2015
Revision	10

FLUXCLENE CLEANING SOLVENT (Combi)

SDS number 10372

Risk phrases in full

R10 Flammable.
R11 Highly flammable.
R12 Extremely flammable.
R36 Irritating to eyes.
R36/38 Irritating to eyes and skin.
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.
R67 Vapours may cause drowsiness and dizziness.

Hazard statements in full

H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H229 Pressurised container: may burst if heated
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.
H222 Extremely flammable aerosol.
H336 May cause drowsiness or dizziness.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
H225 Highly flammable liquid and vapour.
H400 Very toxic to aquatic life.
H226 Flammable liquid and vapour.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H229 Pressurised container: may burst if heated
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 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.

FLUXCLENE CLEANING SOLVENT (Combi)