SAFETY DATA SHEET
ULTRASOLVE PENS

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

1.1. Product identifier

Product name ULTRASOLVE PENS

Product No. ULS-p, EULS12P, EEPK000, ZE

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

Identified uses Cleaning Product

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 GMT Mon – Fri

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Flam. Liq. 2 - H225
Human health	Skin Irrit. 2 - H315;Eye Irrit. 2 - H319;STOT SE 3 - H336;Asp. Tox. 1 - H304
Environment	Aquatic Acute 1 - H400;Aquatic Chronic 1 - H410

Classification (1999/45/EEC) Xn;R65. Xi;R36/38. F;R11. N;R50/53. R67.

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

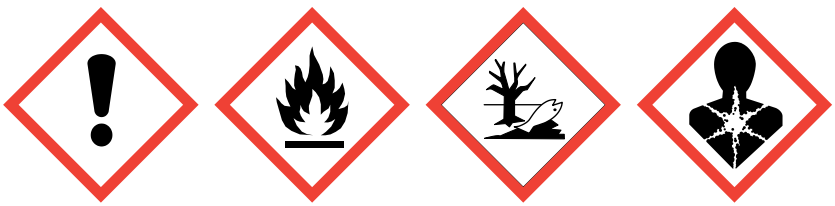
Environment

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. Dispose of waste and residues in accordance with local authority requirements.

2.2. Label elements

Contains CYCLOHEXANE

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



Signal Word Danger

Hazard Statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
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.

Supplementary Precautionary Statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing vapour/spray.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331	Do NOT induce vomiting.

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

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

CAS-No.: 67-63-0 **EC No.: 200-661-7**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Eye Irrit. 2 - H319	Xi;R36
STOT SE 3 - H336	R67

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

CAS-No.: 107-98-2 **EC No.: 203-539-1**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 3 - H226	R10
STOT SE 3 - H336	R67

HEXANE MIXTURE OF ISOMERS (MAX 5% n-HEXANE (203-777-6))	5-10%
CAS-No.: -	**EC No.: -**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Xn;R65
STOT SE 3 - H336	Xi;R38
Asp. Tox. 1 - H304	R67
Aquatic Chronic 2 - H411	N;R51/53

HEPTANE	1-5%
CAS-No.: 142-82-5	**EC No.: 205-563-8**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Xn;R65
STOT SE 3 - H336	Xi;R38
Asp. Tox. 1 - H304	R67
Aquatic Acute 1 - H400	N;R50/53
Aquatic Chronic 1 - H410	

HEXANE-norm	< 1%
CAS-No.: 110-54-3	**EC No.: 203-777-6**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Repr. Cat. 3;R62
Repr. 2 - H361f	Xn;R48/20,R65
STOT SE 3 - H336	Xi;R38
STOT RE 2 - H373	R67
Asp. Tox. 1 - H304	N;R51/53
Aquatic Chronic 2 - H411	

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. Ingrediants are registered on AICS

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Not relevant

Ingestion

DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Provide rest, warmth and fresh air. Get medical attention immediately!

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing.

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. Contact physician if irritation persists.

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

Fire can be extinguished using: Foam. Dry chemicals, sand, dolomite etc.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

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

HIGHLY FLAMMABLE! Solvent vapours may form explosive mixtures with air.

Specific hazards

Vapours are heavier than air and may travel along the floor and in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

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. Clean-up personnel should use respiratory and/or liquid contact protection. 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. Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Use explosion proof electric equipment.

7.2. Conditions for safe storage, including any incompatibilities

Flammable/combustible - Keep away from oxidisers, heat and flames. Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

Storage Class

Flammable liquid storage.

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/m3	150 ppm	560 mg/m3	Sk
CYCLOHEXANE	WEL	100 ppm	350 mg/m3	300 ppm	1050 mg/m3	
HEPTANE	WEL	500 ppm				
PROPAN-2-OL	WEL	400 ppm	999 mg/m3	500 ppm	1250 mg/m3	

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

Ingredient Comments

WEL = Workplace Exposure Limits

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

8.2. Exposure controls

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. Use respiratory equipment with gas filter, type A2. EN14387

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. Nitrile gloves are recommended. Gloves should conform to EN374

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable. EN166

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 hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid Clear
Colour	Colourless.
Odour	Organic solvents.
Solubility	Immiscible with water
Initial boiling point and boiling range (°C)	>80 (>176 F)
Relative density	0.78 @ 20 °c (68 F)
Vapour pressure	11.52 kPa @ 20 °c (68 F)
Flash point (°C)	0 (32 F) CC (Closed cup).
Auto Ignition Temperature (°C)	>200 (392 F)

Flammability Limit - Lower(%)	0.7
Flammability Limit - Upper(%)	8.3

9.2. Other information

Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reacts violently with strong oxidising substances.

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

Not available.

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid heat. Avoid contact with oxidisers or reducing agents.

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances.

10.6. Hazardous decomposition products

Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO_2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation

May cause irritation to the respiratory system. Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion

May cause discomfort if swallowed.

Skin contact

Irritating to skin. 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 absorption.

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)

CYCLOHEXANE (CAS: 110-82-7)

Toxic Dose 1 - LD 50

12705 mg/kg (oral rat)

Toxic Dose 2 - LD 50

813 mg/kg (oral-mouse)

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)

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

The product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

No information required.

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.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN)	1993
UN No. (IMDG)	1993
UN No. (ICAO)	1993

14.2. UN proper shipping name

Proper Shipping Name	FLAMMABLE LIQUID, N.O.S. (CYCLOHEXANE, 1-METHOXY-2-PROPANOL)

14.3. Transport hazard class(es)

ADR/RID/ADN Class	3
ADR/RID/ADN Class	Class 3: Flammable liquids.
ADR Label No.	3
IMDG Class	3
ICAO Class/Division	3

Transport Labels

14.4. Packing group

ADR/RID/ADN Packing group	II
IMDG Packing group	II
ICAO Packing group	II

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

14.6. Special precautions for user

EMS	F-E, S-E
Emergency Action Code	•3YE
Hazard No. (ADR)	33
Tunnel Restriction Code	(D/E)

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

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.

Guidance Notes

Workplace Exposure Limits EH40.

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.
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.
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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with 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

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Issued By	Helen O'Reilly
Revision Date	APRIL 2013
Revision	6
SDS No.	10448

Risk Phrases In Full

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

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
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.

SAFETY DATA SHEET
ULTRASOLVE AEROSOL

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

1.1. Product identifier

Product name ULTRASOLVE AEROSOL

Product No. ULS-a, EULS200D, EULS400D, ZE

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

Identified uses Cleaning Product

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 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;R11. N;R50/53. R67.

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

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

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.
P211	Do not spray on an open flame or other ignition source.
P251	Pressurized container: Do not pierce or burn, even after use.
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.

Supplementary Precautionary Statements

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

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

CAS-No.: 67-63-0 **EC No.: 200-661-7**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Eye Irrit. 2 - H319	Xi;R36
STOT SE 3 - H336	R67

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

CAS-No.: 107-98-2 **EC No.: 203-539-1**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 3 - H226	R10
STOT SE 3 - H336	R67

HEXANE MIXTURE OF ISOMERS (MAX 5% n-HEXANE (203-777-6))	5-10%
CAS-No.: -	**EC No.: -**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Xn;R65
STOT SE 3 - H336	Xi;R38
Asp. Tox. 1 - H304	R67
Aquatic Chronic 2 - H411	N;R51/53

HEPTANE	1-5%
CAS-No.: 142-82-5	**EC No.: 205-563-8**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Xn;R65
STOT SE 3 - H336	Xi;R38
Asp. Tox. 1 - H304	R67
Aquatic Acute 1 - H400	N;R50/53
Aquatic Chronic 1 - H410	

HEXANE-norm	< 1%
CAS-No.: 110-54-3	**EC No.: 203-777-6**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Repr. Cat. 3;R62
Repr. 2 - H361f	Xn;R48/20,R65
STOT SE 3 - H336	Xi;R38
STOT RE 2 - H373	R67
Asp. Tox. 1 - H304	N;R51/53
Aquatic Chronic 2 - H411	

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.

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

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

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/m3	150 ppm	560 mg/m3	Sk
CYCLOHEXANE	WEL	100 ppm	350 mg/m3	300 ppm	1050 mg/m3	
HEPTANE	WEL	500 ppm				
PROPAN-2-OL	WEL	400 ppm	999 mg/m3	500 ppm	1250 mg/m3	

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/m3
Consumer	Dermal	319	mg/kg/day
Consumer	Inhalation.	89	mg/m3
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. Use respiratory equipment with gas filter, type A2. EN14387

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. Nitrile gloves are recommended. Gloves should conform to EN374

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably 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. 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	Lemon.
Solubility	Insoluble in water
Initial boiling point and boiling range (°C)	>80 (176 F)
Melting point (°C)	-29 (-20.2 F)
Relative density	0.780 @ 20 °c (68 F)
Vapour pressure	11.5 kPa @ 20 °c (68 F)
Flash point (°C)	0 (32 F) CC (Closed cup).
Auto Ignition Temperature (°C)	> 250 (482 F)
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

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

Toxicological information

No information available.

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.

HEPTANE (CAS: 142-82-5)

Toxic Dose 1 - LD 50

222 mg/kg (ivn-mouse)

Toxic Conc. - LC 50

103 ppm/4h (inh-rat)

CYCLOHEXANE (CAS: 110-82-7)

Toxic Dose 1 - LD 50

12705 mg/kg (oral rat)

Toxic Dose 2 - LD 50

813 mg/kg (oral-mouse)

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)

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

General information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. Do not puncture or incinerate even when empty.

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

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

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.

Guidance Notes

Workplace Exposure Limits EH40.

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.
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.
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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with 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

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Issued By	Helen O'Reilly
Revision Date	APRIL 2013
Revision	6
SDS No.	10617

Risk Phrases In Full

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.
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.

SAFETY DATA SHEET
ULTRASOLVE

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

1.1. Product identifier

Product name ULTRASOLVE

Product No. ULS-b, EULS01L, EULS05L, EULS25L, ZE

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

Identified uses Cleaning Product

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 GMT Mon – Fri

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Flam. Liq. 2 - H225
Human health	Skin Irrit. 2 - H315;Eye Irrit. 2 - H319;STOT SE 3 - H336;Asp. Tox. 1 - H304
Environment	Aquatic Acute 1 - H400;Aquatic Chronic 1 - H410

Classification (1999/45/EEC) Xn;R65. Xi;R36/38. F;R11. N;R50/53. R67.

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

Environment

The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

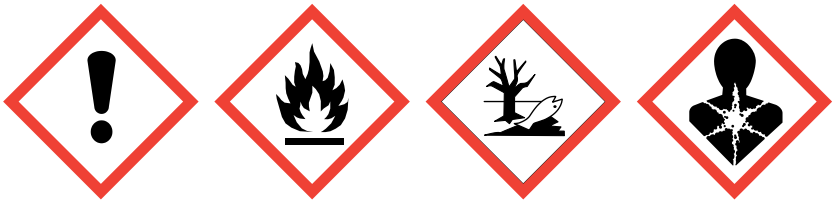
Physical and Chemical Hazards

Vapours are heavier than air and may travel along the floor and in the bottom of containers.

2.2. Label elements

Contains CYCLOHEXANE

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



Signal Word	Danger	
Hazard Statements		
	H225	Highly flammable liquid and vapour.
	H304	May be fatal if swallowed and enters airways.
	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.
	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.
Supplementary Precautionary Statements		
	P273	Avoid release to the environment.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P261	Avoid breathing vapour/spray.
	P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
	P331	Do NOT induce vomiting.

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

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

CAS-No.: 67-63-0 **EC No.: 200-661-7**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Eye Irrit. 2 - H319	Xi;R36
STOT SE 3 - H336	R67

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

CAS-No.: 107-98-2 **EC No.: 203-539-1**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 3 - H226	R10
STOT SE 3 - H336	R67

HEXANE MIXTURE OF ISOMERS (MAX 5% n-HEXANE (203-777-6))	5-10%
CAS-No.: -	**EC No.: -**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Xn;R65
STOT SE 3 - H336	Xi;R38
Asp. Tox. 1 - H304	R67
Aquatic Chronic 2 - H411	N;R51/53

HEPTANE	1-5%
CAS-No.: 142-82-5	**EC No.: 205-563-8**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Xn;R65
STOT SE 3 - H336	Xi;R38
Asp. Tox. 1 - H304	R67
Aquatic Acute 1 - H400	N;R50/53
Aquatic Chronic 1 - H410	

HEXANE-norm	< 1%
CAS-No.: 110-54-3	**EC No.: 203-777-6**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Repr. Cat. 3;R62
Repr. 2 - H361f	Xn;R48/20,R65
STOT SE 3 - H336	Xi;R38
STOT RE 2 - H373	R67
Asp. Tox. 1 - H304	N;R51/53
Aquatic Chronic 2 - H411	

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. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion

DO NOT INDUCE VOMITING! Remove victim immediately from source of exposure. Rinse mouth thoroughly. Provide rest, warmth and fresh air. Get medical attention immediately!

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing.

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. Contact physician if irritation persists.

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

Fire can be extinguished using: Foam. Dry chemicals, sand, dolomite etc.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

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

HIGHLY FLAMMABLE! Solvent vapours may form explosive mixtures with air.

Specific hazards

Vapours are heavier than air and may travel along the floor and in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

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. Clean-up personnel should use respiratory and/or liquid contact protection. 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. Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Use explosion proof electric equipment.

7.2. Conditions for safe storage, including any incompatibilities

Flammable/combustible - Keep away from oxidisers, heat and flames. Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

Storage Class

Flammable liquid storage.

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/m3	150 ppm	560 mg/m3	Sk
CYCLOHEXANE	WEL	100 ppm	350 mg/m3	300 ppm	1050 mg/m3	
HEPTANE	WEL	500 ppm				
PROPAN-2-OL	WEL	400 ppm	999 mg/m3	500 ppm	1250 mg/m3	

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/m3
Consumer	Dermal	319	mg/kg/day
Consumer	Inhalation.	89	mg/m3
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. Use respiratory equipment with gas filter, type A2. EN14387

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. Nitrile gloves are recommended. Gloves should conform to EN374

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable. EN166

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 hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid Clear
Colour	Colourless.
Odour	Organic solvents.
Solubility	Insoluble in water
Initial boiling point and boiling range (°C)	>80 (176 F)
Relative density	0.78 @ 20 °c (68 F)
Flash point (°C)	-20 (-4 F) CC (Closed cup).

Auto Ignition Temperature (°C)	>200 (392 F)
Flammability Limit - Lower(%)	0.7
Flammability Limit - Upper(%)	8.3

9.2. Other information

Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reacts violently with strong oxidising substances.

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

Not available.

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid heat. Avoid contact with oxidisers or reducing agents.

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances.

10.6. Hazardous decomposition products

Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation

May cause irritation to the respiratory system. Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion

May cause discomfort if swallowed.

Skin contact

Irritating to skin. 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 absorption.

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)

CYCLOHEXANE (CAS: 110-82-7)

Toxic Dose 1 - LD 50

12705 mg/kg (oral rat)

Toxic Dose 2 - LD 50

813 mg/kg (oral-mouse)

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)

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

The product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

No information required.

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.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN)	1993
UN No. (IMDG)	1993
UN No. (ICAO)	1993

14.2. UN proper shipping name

Proper Shipping Name	FLAMMABLE LIQUID, N.O.S. (CYCLOHEXANE, 1-METHOXY-2-PROPANOL)

14.3. Transport hazard class(es)

ADR/RID/ADN Class	3
ADR/RID/ADN Class	Class 3: Flammable liquids.
ADR Label No.	3
IMDG Class	3
ICAO Class/Division	3

Transport Labels

14.4. Packing group

ADR/RID/ADN Packing group	II
IMDG Packing group	II
ICAO Packing group	II

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

14.6. Special precautions for user

EMS	F-E, S-E

Emergency Action Code	•3YE
Hazard No. (ADR)	33
Tunnel Restriction Code	(D/E)

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

Guidance Notes

Workplace Exposure Limits EH40.

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.
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.
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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with 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.

Water hazard classification

WGK 1

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

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Risk Phrases In Full

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

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
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.