



Safety data sheet

According to Annex II to REACH - Regulation 2015/830

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **U055050004**
Product name: **EOLO**

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

Intended use: **Hygiene for air conditioning systems.**
Uses advised against: **Different uses than those intended.**

1.3. Details of the supplier of the safety data sheet

Name: **CENTRO DISTRIBUZIONE UTENSILI SCPA**
Full address: **Via delle Gerole, 19**
District and Country: **20867 CAPONAGO (MB)
ITALY**
tel. **+39 02 95746081**
fax. **+ 39 02 95745182**

e-mail address of the competent person

responsible for the Safety Data Sheet: **info@cdu.net**
Product distribution by: **CENTRO DISTRIBUZIONE UTENSILI SCPA**

1.4. Emergency telephone number

For urgent inquiries refer to: **+39 02 95746081 (Technical support - Office hour 8.30-12.30 - 13.30-17.30)**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Aerosol, category 1	H222	Extremely flammable aerosol.
	H229	Pressurised container: may burst if heated.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: **DANGER**

Hazard statements:

H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains:



EOLO

D-LIMONENE
ORANGE, SWEET, EXT.
May produce an allergic reaction.

Precautionary statements:

P102	Keep out of reach of children.
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.
P273	Avoid release to the environment.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P501	Dispose of contents / container in accordance with local and national regulations.

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients**3.1. Substances**

Information not relevant.

3.2. Mixtures

Contains:

Identification	x=Conc. %	Classification 1272/2008 (CLP)
PROPANE CAS 74-98-6 EC 200-827-9 INDEX 601-003-00-5 Reg. no. 01-2119486944-21	50 ≤ x < 60	Flam. Gas 1 H220, Press. Gas H280, Note U
BUTANE CAS 106-97-8 EC 203-448-7 INDEX 601-004-00-0 Reg. no. 01-2119474691-32	20 ≤ x < 25	Flam. Gas 1 H220, Press. Gas H280, Note C U
ISOBUTANE CAS 75-28-5 EC 200-857-2 INDEX 601-004-00-0 Reg. no. 01-2119485395-27	10 ≤ x < 12,5	Flam. Gas 1 H220, Press. Gas H280, Note C U
PROPAN-2-OL CAS 67-63-0 EC 200-661-7 INDEX 603-117-00-0 Reg. no. 01-2119457558-25	7 ≤ x < 10	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336
ORANGE, SWEET, EXT. CAS 8028-48-6 EC 232-433-8 INDEX - Reg. no. 01-2119493353-35	0,2 ≤ x < 0,25	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410
D-LIMONENE CAS 5989-27-5 EC 227-813-5	0,15 ≤ x < 0,2	Flam. Liq. 3 H226, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410, Nota C



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The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

For symptoms and effects caused by the contained substances, see section 11.

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

Information for the doctor: symptomatically treatment.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up

Use inert absorbent material to soak up leaked product. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.



EOLO

SECTION 7. Handling and storage**7.1. Precautions for safe handling**

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

Storage class TRGS 510 (Germany): 2B

7.3. Specific end use(s)

Hygiene for air conditioning systems.

SECTION 8. Exposure controls/personal protection**8.1. Control parameters**

Regulatory References:

DEU	Deutschland	MAK-und BAT-Werte-Liste 2012
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
	TLV-ACGIH	ACGIH 2016

PROPANE**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	1800	1000	7200	4000
MAK	DEU	1800	1000	7200	4000
TLV-ACGIH			1000		

BUTANE**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	2400	1000	9600	4000
MAK	DEU	2400	1000	9600	4000
VLA	ESP		800		
VLEP	FRA	1900	800		
WEL	GBR	1450	600	1810	750
TLV-ACGIH				2377	1000

PROPAN-2-OL**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	500	200	1000	400
MAK	DEU	500	200	1000	400
VLA	ESP	500	200	1000	400



EOLO

VLEP	FRA			980	400
WEL	GBR	999	400	1250	500
TLV-ACGIH		492	200	983	400

ORANGE, SWEET, EXT.

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	110	20	220	40	
MAK	DEU	28	5	112	20	SKIN

D-LIMONENE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0054	mg/l
Normal value in marine water	0,00054	mg/l
Normal value for fresh water sediment	1,32	mg/kg
Normal value for marine water sediment	0,13	mg/kg
Normal value of STP microorganisms	1,8	mg/l
Normal value for the food chain (secondary poisoning)	3,33	mg/kg
Normal value for the terrestrial compartment	0,262	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	4,76 mg/kg bw/d				
Inhalation			VND	8,33 mg/m3			VND	3,33 mg/m3

Legend:

(C) = CEILING; INHAL = Inhalable Fraction; RESP = Respirable Fraction; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

TLV of solvent mixture: 492 mg/m3

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

None required.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Spray
Colour	Not available
Odour	Mild citrus fruit



Odour threshold	Not applicable
pH	Not applicable
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	< 0 °C
Evaporation Rate	Not available
Flammability of solids and gases	Not applicable
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not applicable
Relative density	0,800 Kg/l
Solubility	in water: total; in acetone: partial
Partition coefficient: n-octanol/water	Not applicable
Auto-ignition temperature	Not available
Decomposition temperature	Not applicable
Viscosity	Not applicable
Explosive properties	Not applicable
Oxidising properties	Not applicable
9.2. Other information	
VOC (Directive 2010/75/EC) :	99,75 % - 797,99 g/litre
VOC (volatile carbon) :	Not available
Propellant Flammability	extremely flammable
Limit of propellant flammability	1,8-9,5%

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

Avoid overheating.

10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

11.1. Information on toxicological effects

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product. In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product contains sensitizing substance/s and may cause allergic reactions.



ORANGE, SWEET, EXT.

LD50 (Oral)

4400 mg/kg Rat

LD50 (Dermal)

> 5000 mg/kg Rabbit

PROPAN-2-OL

LD50 (Oral)

4710 mg/kg Rat

LD50 (Dermal)

12800 mg/kg Rat

LC50 (Inhalation)

46 mg/l/4h Rat

D-LIMONENE

LD50 (Oral)

> 5000 mg/kg bw Rat

LD50 (Dermal)

> 5000 mg/kg bw Rabbit

SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

ORANGE, SWEET, EXT.

LC50 - for Fish

35 mg/l/96h Oncorhynchus mykiss

EC50 - for Crustacea

69,6 mg/l/48h Daphnia pulex

PROPAN-2-OL

LC50 - for Fish

9640 mg/l/96h Pimephales Promelas

EC50 - for Crustacea

2285 mg/l/48h Daphnia magna

D-LIMONENE

LC50 - for Fish

0,72 mg/l Pimephales promelas

EC50 - for Crustacea

0,36 mg/l/48h Daphnia

EC50 - for Algae / Aquatic Plants

8 mg/l/72h Desmodemus subspicatus

12.2. Persistence and degradability

ORANGE, SWEET, EXT.

Solubility in water

0,1 - 100 mg/l

Entirely biodegradable.

BUTANE

Solubility in water

0,1 - 100 mg/l

Rapidly biodegradable.

PROPANE

Solubility in water

0,1 - 100 mg/l

Rapidly biodegradable.

PROPAN-2-OL

Solubility in water

Soluble

Rapidly biodegradable.



D-LIMONENE

Solubility in water 5,96 mg/l

12.3. Bioaccumulative potential

ORANGE, SWEET, EXT.

Partition coefficient: n-octanol/water 4,38
BCF 1022

BUTANE

Partition coefficient: n-octanol/water 1,09

PROPANE

Partition coefficient: n-octanol/water 1,09

PROPAN-2-OL

Partition coefficient: n-octanol/water 0,05

12.4. Mobility in soil

Information not available.

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available.

SECTION 13. Disposal considerations**13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information**14.1. UN number**

ADR / RID, IMDG, IATA: 1950

14.2. UN proper shipping name

ADR / RID: AEROSOLS

IMDG: AEROSOLS

IATA: AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

EOLO

ADR / RID: Class: 2 Label: 2.1

IMDG: Class: 2 Label: 2.1

IATA: Class: 2 Label: 2.1


14.4. Packing group

ADR / RID, IMDG, IATA: -

14.5. Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
	Special Provision: -		
IMDG:	EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 150 Kg	Packaging instructions: 203
	Pass.:	Maximum quantity: 75 Kg	Packaging instructions: 203
	Special Instructions:	A145, A167, A802	

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

Information not relevant.

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Seveso category 8

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product	
Point	40

Substances in Candidate List (Art. 59 REACH)

None.

Substances subject to authorisation (Annex XIV REACH)

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls

Information not available.

German regulation on the classification of substances hazardous to water (VwVwS 2005)

WGK 2: Hazard to waters.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Gas 1	Flammable gas, category 1
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Press. Gas	Pressurised gas
Asp. Tox. 1	Aspiration hazard, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may burst if heated.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)



- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
 4. Regulation (EU) 2015/830 of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.