Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Code:	**U055050004**
Product name	**EOLO**
UFI:	**6VD0-V0DF-P00J-VY4G**

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

Intended use	**Hygiene for air conditioning systems.**
Uses advised against	Uses other than those intended.

1.3. Details of the supplier of the safety data sheet

Name	**CENTRO DISTRIBUZIONE UTENSILI S.p.a**
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**
Supplier:	**CENTRO DISTRIBUZIONE UTENSILI S.p.a**

1.4. Emergency telephone number

For urgent inquiries refer to **CENTRO DISTRIBUZIONE UTENSILI S.p.a +39 02 95746081**
(Technical support - Office hour 8.30-13.00 - 14.00-17.30)

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 (EU) Regulation 2020/878.
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.

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.
EUH208	Contains: PIN-2(10)-ENE; L-LIMONENE; D-LIMONENE; ORANGE, SWEET, EXT. May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C / 122°F.
P102	Keep out of reach of children.
P211	Do not spray on an open flame or other ignition source.

Contains: PROPAN-2-OL.

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.
The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	X = Conc. %	Classification (EC) 1272/2008 (CLP)
PROPANE		
INDEX 601-003-00-5 *EC 200-827-9* *CAS 74-98-6* *REACH Reg. 01-2119486944-21*	46,35 ≤ x ≤ 56,35	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
BUTANE		
INDEX 601-004-00-0 *EC 203-448-7* *CAS 106-97-8* *REACH Reg. 01-2119474691-32*	12,75 ≤ x ≤ 22,75	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C, U
ISOBUTANE		
INDEX 601-004-00-0 *EC 200-857-2* *CAS 75-28-5* *REACH Reg. 01-2119485395-27*	8 ≤ x ≤ 11	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C, U
PROPAN-2-OL		Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336
INDEX 603-117-00-0 *EC 200-661-7* *CAS 67-63-0* *REACH Reg. 01-2119457558-25*	6,5 ≤ x ≤ 9,5	
ORANGE, SWEET, EXT.		
INDEX - *EC 232-433-8* *CAS 8028-48-6* *REACH Reg. 01-2119493353-35*	0,075 ≤ x ≤ 0,085	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 M=1, Classification note according to Annex VI to the CLP Regulation: C, P
D-LIMONENE		

INDEX 601-029-00-2 *EC 227-813-5* *CAS 5989-27-5* *REACH Reg. 01-2119529223-47*	0,069 ≤ x ≤ 0,079	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412, Classification note according to Annex VI to the CLP Regulation: C
L-LIMONENE		
INDEX 601-029-00-7 *EC 227-815-6* *CAS 5989-54-8* *REACH Reg. 01-2119958629-18*	0,05 ≤ x ≤ 0,06	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 M=1
PIN-2(10)-ENE		
INDEX - *EC 204-872-5* *CAS 127-91-3* *REACH Reg. 01-2119519230-54*	0,015 ≤ x ≤ 0,016	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 M=1

The full wording of hazard (H) phrases is given in section 16 of the sheet.
The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.
Percentage of propellants max: 90,10 %

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. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed
Specific information on symptoms and effects caused by the product are unknown.

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.

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:

AUS	Österreich	Gesamte Rechtsvorschrift für Grenzwerteverordnung 2021 , Fassung vom 17.06.2021
BEL	Belgique	Liste de valeurs limites d'exposition aux agents chimiques, livre VI du code du bien-être au travail
BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CHE	Suisse / Schweiz	Valeurs limites d`exposition aux postes de travail: VME/VLE (SUVA). Grenzwerte am Arbeitsplatz: MAK (SUVA)
CZE	Česká Republika	Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
EST	Eesti	Ohtlike kemikaalide ja neid sisaldavate materjalide kasutamise töötervishoiu ja tööohutuse nõuded ning töökeskkonna keemiliste ohutegurite piirnormid [RT I, 17.10.2019, 1 - jõust. 17.01.2020]
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
FIN	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL - OCH HÄLSOVÅRDSMINISTERIETS PUBLIKATIONER 2020:25
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ``σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία``»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki

		tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
IRL	Éire	2020 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)
LTU	Lietuva	Jsakymas dėl lietuvos higienos normos hn 23:2011 „cheminių medžiagų profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai“ patvirtinimo

PROPANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	1800	1000	3600	2000	STEL:60(Mow),Häufigkeit/Sch:3x
TRK	AUS	1800	1000	3600	2000	
VLEP	BEL		1000			
TLV	BGR	1800				
MAK	CHE	1800	1000	7200	4000	
VME/VLE	CHE	1800	1000	7200	4000	
AGW	DEU	1800	1000	7200	4000	
MAK	DEU	1800	1000	7200	4000	
TLV	DNK	1800	1000			
VLA	ESP		1000			
TLV	EST	1800	1000			
HTP	FIN	1500	800	2000	1100	
TLV	GRC	1800	1000			
RV	LVA	1800	100			
TLV	NOR	900	500			
NDS/NDSCh	POL	1800				
TLV	ROU	1400	778	1800	1000	
MV	SVN	1800	1000	7200	4000	

BUTANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	1900	800	3800	1600	STEL:60(Mow),Häufigkeit/Sch:3x
TRK	AUS	1600	800	3800	1600	
VLEP	BEL			2370	980	
TLV	BGR	1900				
MAK	CHE	1900	800	7600	3200	
VME/VLE	CHE	1900	800	7600	3200	
AGW	DEU	2400	1000	9600	4000	
MAK	DEU	2400	1000	9600	4000	
TLV	DNK	1200	500			
VLA	ESP		1000			Gases
TLV	EST	1500	800			
VLEP	FRA	1900	800			

HTP	FIN	1900	800	2400	1000	
TLV	GRC	2350	1000			
AK	HUN	2350		9400		
GVI/KGVI	HRV	1450	600	1810	750	
OELV	IRL				1000	All Isomers
RV	LVA	300				
TLV	NOR	600	250			
TGG	NLD	1430				
NDS/NDSCh	POL	1900		3000		
MV	SVN	2400	1000	9600	4000	
WEL	GBR	1450	600	1810	750	
WEL	GBR		4			RESP
TLV-ACGIH					1000	

ISOBUTANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	BEL			2370	980	
MAK	CHE	1900	800			
VME/VLE	CHE	1900	800			
AGW	DEU	2400	1000	9600	4000	
MAK	DEU	2400	1000	9600	4000	
HTP	FIN	1900	800	2400	1000	
OELV	IRL				1000	
TLV-ACGIH					1000	

PROPAN-2-OL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	500	200	2000	800	Häufigkeit pro Schicht:4x
VLEP	BEL	500	200	1000	400	
TLV	BGR	980		1225		
MAK	CHE	500	200	1000	400	
VME/VLE	CHE	500	200	1000	400	
TLV	CZE	500	200	1000	400	
AGW	DEU	500	200	1000	400	
MAK	DEU	500	200	1000	400	
TLV	DNK	490	200	980	400	
VLA	ESP	500	200	1000	400	
TLV	EST	350	150	600	250	
VLEP	FRA			980	400	
HTP	FIN	500	200	620	250	
TLV	GRC	980	400	1225	500	

GVI/KGVI	HRV	999	400	1250	500		
OELV	IRL		200		400	SKIN	
RD	LTU	350		600			
RV	LVA	350		600			
TLV	NOR	245	100				
TGG	NLD	650					
NDS/NDSCh	POL	900		1200		SKIN	
TLV	ROU	200	81	500	203		
NGV/KGV	SWE	350	150	600	250		
NPEL	SVK	500	200	1000	400		
MV	SVN	500	200	1000	400		
WEL	GBR	999	400	1250	500		
TLV-ACGIH			200		400		

Predicted no-effect concentration - PNEC		
Normal value in fresh water	140,9	mg/l
Normal value in marine water	140,9	mg/l
Normal value for fresh water sediment	552	mg/kg
Normal value for marine water sediment	552	mg/kg
Normal value for water, intermittent release	140,9	mg/l
Normal value of STP microorganisms	2251	mg/l
Normal value for the food chain (secondary poisoning)	160	mg/kg
Normal value for the terrestrial compartment	28	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				26 mg/kg bw/d				
Inhalation				89 mg/m3				500 mg/m3
Skin				319 mg/kg bw/d				888 mg/kg bw/d

D-LIMONENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	CHE	40	7	80	14	
VME/VLE	CHE	40	7	80	14	
AGW	DEU	28	5	110	20	SKIN
MAK	DEU	28	5	112	20	SKIN
VLA	ESP	168	30	80	14	SKIN
HTP	FIN	140	25	280	50	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0014	mg/l
Normal value in marine water	0,00014	mg/l
Normal value for fresh water sediment	3,85	mg/kg/d
Normal value for marine water sediment	0,385	mg/kg/d

Normal value of STP microorganisms	1,8	mg/l
Normal value for the food chain (secondary poisoning)	133	mg/kg
Normal value for the terrestrial compartment	0,763	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				4,8 mg/kg bw/d				
Inhalation				16,6 mg/m3				66,7 mg/m3
Skin				4,8 mg/kg bw/d				9,5 mg/kg bw/d

PIN-2(10)-ENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	BEL		20			
MAK	CHE	112	20	224	40	
TLV	DNK	140	25	280	50	
TLV	NOR	140	25			
NGV/KGV	SWE	150	25	300	50	
TLV-ACGIH			20			

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; LOW = low hazard; MED = medium hazard; HIGH = high hazard.

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.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
HAND PROTECTION
None required.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 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.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	aerosol	
Colour	colourless	

Odour	mild citrus fruit	
Odour threshold	not applicable	
Melting point / freezing point	not available	
Initial boiling point	not available	
Flammability	not applicable	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	not applicable	Reason for missing data: does not apply to aerosols and gases.
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not applicable	
Kinematic viscosity	not available	
Solubility	in water: total; in aceton: partial	Note: refers to the liquid base without considering the propellant.
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	not available	
Relative vapour density	0,8 kg/dm^3	Note: the density refers to the liquid base without considering the propellant.
Particle characteristics	not applicable	

9.2. Other information
9.2.1. Information with regard to physical hazard classes
Information not available.

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)	100 %
Explosive properties	not applicable
Oxidising properties	not applicable

SECTION 10. Stability and reactivity

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

D-LIMONENE
Possibility of reaction with oxidizing substances. Highly exothermic reaction when mixed with approximately 50/50 alkylbenzene sulfonic acid.

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.

PROPAN-2-OL
Not explosive, however the formation of explosive vapor/air mixtures is possible.
ORANGE, SWEET, EXT.
Reacts with: strong oxidising agents.
D-LIMONENE
May react with: oxidising substances.

10.4. Conditions to avoid

Avoid overheating.

PROPAN-2-OL
Avoid exposure to: heat, naked flames, ignition sources.
ORANGE, SWEET, EXT.
Avoid exposure to: heat, naked flames, electrostatic discharges.
D-LIMONENE
Avoid exposure to: naked flames, direct sunlight.

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

PROPAN-2-OL
Incompatible with: strong oxidising agents, strong acids, alkaline metals, amines, aluminium, iron.
ORANGE, SWEET, EXT.
Incompatible with: mineral acids, strong oxidising agents.
D-LIMONENE
Avoid contact with: oxidising agents, acids.

10.6. Hazardous decomposition products
PROPAN-2-OL
In decomposition develops: carbon oxides.
ORANGE, SWEET, EXT.
May develop: carbon dioxide, carbon monoxide.
D-LIMONENE
In decomposition develops: carbon oxides.

SECTION 11. Toxicological information

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.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information
Information not available.

Information on likely routes of exposure
Information not available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Information not available.

Interactive effects
Information not available.

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	not classified (no significant component)
ATE (Oral) of the mixture:	not classified (no significant component)
ATE (Dermal) of the mixture:	not classified (no significant component)

PROPAN-2-OL

LD50 (Dermal):	13900 mg/kg Rabbit (OECD 402)
LD50 (Oral):	5840 mg/kg Rat (OECD 401)
LC50 (Inhalation vapours):	> 10000 mg/l/6h Rat (OECD 403)

ORANGE, SWEET, EXT.

LD50 (Dermal):	> 5000 mg/kg Rabbit

LD50 (Oral):	4400 mg/kg Rat

D-LIMONENE

LD50 (Dermal):	> 5000 mg/kg dw Rabbit
LD50 (Oral):	> 2000 mg/kg dw Female rat (OECD 423)

PIN-2(10)-ENE

LD50 (Dermal):	> 5000 mg/kg bw Rabbit
LD50 (Oral):	> 5000 mg/kg Rat

SKIN CORROSION / IRRITATION
Does not meet the classification criteria for this hazard class.

SERIOUS EYE DAMAGE / IRRITATION
Does not meet the classification criteria for this hazard class.

RESPIRATORY OR SKIN SENSITISATION
May produce an allergic reaction.
Contains: PIN-2(10)-ENE; L-LIMONENE; D-LIMONENE; ORANGE, SWEET, EXT.

GERM CELL MUTAGENICITY
Does not meet the classification criteria for this hazard class.

CARCINOGENICITY
Does not meet the classification criteria for this hazard class.

REPRODUCTIVE TOXICITY
Does not meet the classification criteria for this hazard class.

STOT - SINGLE EXPOSURE
Does not meet the classification criteria for this hazard class.

STOT - REPEATED EXPOSURE
Does not meet the classification criteria for this hazard class.

ASPIRATION HAZARD
Does not meet the classification criteria for this hazard class.

11.2. Information on other hazards
Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

PROPAN-2-OL

LC50 - for Fish	9640 mg/l/96h Pimephales promelas
EC50 - for Crustacea	10000 mg/l/48h Daphnia magna

PIN-2(10)-ENE

LC50 - for Fish	0,557 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	1250 mg/l/48h Daphnia magna

D-LIMONENE	
LC50 - for Fish	0,72 mg/l Pimephales promelas (OECD 203)
EC50 - for Algae / Aquatic Plants	0,32 mg/l/72h Pseudokirchnella subcapitata
ORANGE, SWEET, EXT.	
LC50 - for Fish	< 1 mg/l/96h
EC50 - for Crustacea	< 1 mg/l/48h
EC50 - for Algae / Aquatic Plants	< 1 mg/l/72h
Chronic NOEC for Fish	2,35 mg/l

12.2. Persistence and degradability

BUTANE	
Rapidly degradable	
PROPANE	
Rapidly degradable	
PROPAN-2-OL	
Solubility in water	Soluble
Rapidly degradable	
PIN-2(10)-ENE	
Solubility in water	0,02 mg/l
D-LIMONENE	
Solubility in water	Insoluble
Rapidly degradable	80% - 28d (OECD 301D)
ORANGE, SWEET, EXT.	
Solubility in water	13,8 mg/l
Entirely degradable	

12.3. Bioaccumulative potential

PROPAN-2-OL	
Partition coefficient: n-octanol/water	0,05 Log Kow (OECD 107)

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 ≥ than 0,1%.

12.6. Endocrine disrupting properties
Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. 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 or ID 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)

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 provision:	A145, A167, A802	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant.

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: P3a.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 40

Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
Not applicable.

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None.

Substances subject to exportation reporting pursuant to Regulation (EU) 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 (AwSV, vom 18. April 2017)
WGK 2: hazard to waters.

15.2. Chemical safety assessment
A chemical safety assessment has not been performed for the mixture.

SECTION 16. Other information

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

Flam. Gas 1A	Flammable gas, category 1A
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 (Liq.)	Liquefied 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
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 explode 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.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 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: 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: Regulation (EC) 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: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

Classification and procedure used to derive it according to Regulation (EC) 1272/2008 (CLP) in relation to mixtures:

Classification according to Regulation (EC) n.1272/2008	Classification procedure
Aerosol 1 H222+H229	Based on experimental data

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament

3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) 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
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- 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
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

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.
CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 04 / 08 / 09 / 10 / 11 / 12 / 14 / 15 / 16.