

SAFETY AIR

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

Product name **SAFETY AIR**

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

Intended use **Cleaner for air conditioning systems.**

1.3. Details of the supplier of the safety data sheet

Name **SK SOLKEM INDUSTRIES SRL A SOCIO UNICO**

Full address **Corso Europa 85/91**

District and Country **20033 Solaro (Mi)**

Italia

Tel. 0039 02 84505

Fax 0039 02 84505479

e-mail address of the competent person

responsible for the Safety Data Sheet **regulatory@sksolkem.com**

1.4. Emergency telephone number

For urgent inquiries refer to **+39 0284505 (From Monday to Friday H. 8.00-17.00)**

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 H229	Extremely flammable aerosol. Pressurised container: may burst if heated.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin sensitization, category 1B	H317	May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

2.2. Label elements

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

SAFETY AIR

Hazard pictograms:



Signal words:

Danger

Hazard statements:

H222 Extremely flammable aerosol.
H229 Pressurised container: may burst if heated.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.
EUH066 Repeated exposure may cause skin dryness or cracking.

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 not expose to temperatures exceeding 50°C / 122°F.
P501 Dispose of contents / container to . . .
P102 Keep out of reach of children.
P211 Do not spray on an open flame or other ignition source.
P280 Wear protective gloves / eye protection / face protection.

Contains:

(R)-P-MENTHA-1,8-DIENE
PROPAN-2-OL
ACETONE
CITRAL
(S)-p-Mentha-1,8-diene
Litsea cubeba fruit oil
Rectified Hydrocarbons by-products from synthetic process of Turpentine and acid, alcohols fraction
Orange sweet ext.

Ingredients according to Regulation (EC) No. 648/2004

30% and more aliphatic hydrocarbons

perfumes, Citral, Limonene

2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

SECTION 3. Composition/information on ingredients

SAFETY AIR

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
PROPANE		
INDEX 601-003-00-5	$33 \leq x < 37$	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
EC 200-827-9		
CAS 74-98-6		
REACH Reg. 01-2119486944-21		
BUTANE		
INDEX 601-004-00-0	$25 \leq x < 29$	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C, U
EC 203-448-7		
CAS 106-97-8		
REACH Reg. 01-2119474691-32-XXXX		
PROPAN-2-OL		
INDEX 603-117-00-0	$20 \leq x < 22,5$	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336
EC 200-661-7		
CAS 67-63-0		
REACH Reg. 01-2119457558-25		
ISOBUTANE		
INDEX 601-004-00-0	$12,5 \leq x < 14$	Flam. Gas 1A H220, Press. Gas H280, Classification note according to Annex VI to the CLP Regulation: C, U
EC 200-857-2		
CAS 75-28-5		
REACH Reg. 01-2119485395-27-XXXX		
ACETONE		
INDEX 606-001-00-8	$2 \leq x < 2,5$	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 200-662-2		
CAS 67-64-1		
REACH Reg. 01-2119471330-49-XXXX		
(R)-P-MENTHA-1,8-DIENE		
INDEX 601-096-00-2	$0,25 \leq x < 0,3$	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1B H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412
EC 227-813-5		
CAS 5989-27-5		
REACH Reg. 01-2119529223-47-XXXX		
Rectified Hydrocarbons by-products from synthetic process of Turpentine and acid, alcohols fraction		
INDEX -	$0,2 \leq x < 0,25$	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317
EC 949-141-8		

SAFETY AIR

CAS -		
REACH Reg. 01-2120789752-39-XXXX		
Orange sweet ext.		
INDEX -	0,2 ≤ x < 0,25	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 1 H410 M=1
EC 232-433-8		
CAS 8028-48-6		
REACH Reg. 01-2119493353-35-XXXX		
Cloruro di didecildimetilammonio		
INDEX 612-131-00-6	0,1 ≤ x < 0,15	Acute Tox. 3 H301, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 2 H411 STA Oral: 100 mg/kg
EC 230-525-2		
CAS 7173-51-5		
REACH Reg. 01-2119945987-15-XXXX		
(S)-p-Mentha-1,8-diene		
INDEX 601-029-00-7	0,05 ≤ x < 0,1	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 1 H410 M=1, EUH208
EC 227-815-6		
CAS 5989-54-8		
REACH Reg. 01-2119958629-18-XXXX		
Litsea cubeba fruit oil		
INDEX -	0,05 ≤ x < 0,1	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC 290-018-7		
CAS 68855-99-2		
REACH Reg. 01-2120118332-70-XXXX		
CITRAL		
INDEX 605-019-00-3	0,05 ≤ x < 0,1	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317
EC 226-394-6		
CAS 5392-40-5		
REACH Reg. 01-2119462829-23-XXXX		

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: 75,50 %

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 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a

SAFETY AIR

doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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 not available

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.

SAFETY AIR

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)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

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
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 HÄLSOVÄRDSMINISTERIETS 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``»
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemičkim na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)

SAFETY AIR

GBR United Kingdom EH40/2005 Workplace exposure limits (Fourth Edition 2020)
 EU OEL EU Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983;
 Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive
 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
 TLV-ACGIH ACGIH 2021

PROPANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	1800	1000	7200	4000	
MAK	DEU	1800	1000	7200	4000	
TLV	DNK	1800	1000			
VLA	ESP		1000			
HTP	FIN	1500	800	2000	1100	
TLV	GRC	1800	1000			
TLV	NOR	900	500			
NDS/NDSch	POL	1800				

BUTANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	2400	1000	9600	4000	
MAK	DEU	2400	1000	9600	4000	
TLV	DNK	1200	500			
VLA	ESP		1000			Gases
VLEP	FRA	1900	800			
HTP	FIN	1900	800	2400	1000	
TLV	GRC	2350	1000			
GVI/KGVI	HRV	1450	600	1810	750	
TLV	NOR	600	250			
TGG	NLD	1430				
NDS/NDSch	POL	1900		3000		
WEL	GBR	1450	600	1810	750	
WEL	GBR		4			RESP
TLV-ACGIH					1000	

PROPAN-2-OL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	500	200	1000	400	
AGW	DEU	500	200	1000	400	
MAK	DEU	500	200	1000	400	

SAFETY AIR

TLV	DNK	490	200		
VLA	ESP	500	200	1000	400
VLEP	FRA			980	400
HTP	FIN	500	200	620	250
TLV	GRC	980	400	1225	500
GVI/KGVI	HRV	999	400	1250	500
TLV	NOR	245	100		
TGG	NLD	650			
NDS/NDSCh	POL	900		1200	SKIN
NGV/KGV	SWE	350	150	600 (C)	250 (C)
WEL	GBR	999	400	1250	500
TLV-ACGIH		492	200	983	400

ISOBUTANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	2400	1000	9600	4000	
HTP	FIN	1900	800	2400	1000	

ACETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	800	331,2	1500	621	
AGW	DEU	1200	500	2400 (C)	1000 (C)	
MAK	DEU	1200	500	2400	1000	
TLV	DNK	600	250			E
VLA	ESP	1210	500			
VLEP	FRA	1210	500	2420	1000	
HTP	FIN	1200	500	1500	630	
TLV	GRC	1780		3560		
GVI/KGVI	HRV	1210	500			
VLEP	ITA	1210	500			
TLV	NOR	295	125			
TGG	NLD	1210		2420		
VLE	PRT	1210	500			
NDS/NDSCh	POL	600		1800		
NGV/KGV	SWE	600	250	1200 (C)	500 (C)	
WEL	GBR	1210	500	3620	1500	
OEL	EU	1210	500			
TLV-ACGIH			250		500	

SAFETY AIR

Predicted no-effect concentration - PNEC

Normal value in fresh water	10,6	mg/l
Normal value in marine water	1,06	mg/l
Normal value for fresh water sediment	30,4	mg/kg
Normal value for marine water sediment	3,04	mg/kg
Normal value for water, intermittent release	21	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	29,5	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		62 mg/kg/d				
Inhalation		VND		200 mg/m ³	VND	2420 mg/m ³	VND	1210 mg/m ³
Skin		VND		62 mg/kg/d		VND		186 mg/kg/d

(R)-P-MENTHA-1,8-DIENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m ³	ppm	mg/m ³	ppm	
AGW	DEU	28	5	112	20	SKIN
MAK	DEU	28	5	112	20	SKIN
VLA	ESP	168	30			SKIN
HTP	FIN	140	25	280	50	
TLV	NOR	140	25			

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 terrestrial compartment	0,262	mg/kg
Normal value for the atmosphere	3,33	mg/m ³

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				4,76 mg/kg/d				
Inhalation				8,33 mg/m ³				33,3 mg/m ³

Cloruro di didecildimetilammonio

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0011	mg/l
Normal value in marine water	0,00011	mg/l

SAFETY AIR

Normal value for fresh water sediment	61,86	mg/kg
Normal value for marine water sediment	6,186	mg/kg
Normal value of STP microorganisms	0,14	mg/l
Normal value for the terrestrial compartment	1,4	mg/kg

(S)-p-Mentha-1,8-diene
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU	110	20			SKIN

CITRAL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		31	5			SKIN

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.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

None required.

SKIN PROTECTION

Wear category II 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

SAFETY AIR

environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	Temperature: 20 °C
Colour	colourless	Temperature: 20 °C
Odour	characteristic	
Odour threshold	not determined	
Melting point / freezing point	not available	
Initial boiling point	not applicable	
Flammability	not applicable	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	not applicable	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	Reason for missing data:substance/mixture is non-polar/aprotic (eg: an organic solvent mixture)
Kinematic viscosity	not determined	
Solubility	miscible in water	Temperature: 20 °C
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	0,605 kg/l	Method:ASTM D 1298 Temperature: 20 °C
Relative vapour density	not available	
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)	98,90 % - 598,35 g/litre
VOC (volatile carbon)	65,48 % - 396,14 g/litre
Explosive properties	not explosive
Oxidising properties	Not oxidizing

SECTION 10. Stability and reactivity

10.1. Reactivity

SAFETY AIR

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

ACETONE

Decomposes under the effect of heat.

10.2. Chemical stability

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

(R)-P-MENTHA-1,8-DIENE

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.

ACETONE

Risk of explosion on contact with: bromine trifluoride, fluorine dioxide, hydrogen peroxide, nitrosyl chloride, 2-methyl-1,3 butadiene, nitromethane, nitrosyl perchlorate. May react dangerously with: potassium tert-butoxide, alkaline hydroxides, bromine, bromoform, isoprene, sodium, sulphur dioxide, chromium trioxide, chromyl chloride, nitric acid, chloroform, peroxymonosulphuric acid, phosphoryl oxychloride, chromosulphuric acid, fluorine, strong oxidising agents, strong reducing agents. Develops flammable gas on contact with: nitrosyl perchlorate.

(R)-P-MENTHA-1,8-DIENE

May react dangerously with: strong oxidising agents, mineral acids.

10.4. Conditions to avoid

Avoid overheating.

ACETONE

Avoid exposure to: sources of heat, naked flames.

(R)-P-MENTHA-1,8-DIENE

Avoid exposure to: heat, naked flames, electrostatic discharges.

10.5. Incompatible materials

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

ACETONE

Incompatible with: acids, oxidising substances.

(R)-P-MENTHA-1,8-DIENE

Incompatible with: strong acids, oxidising agents.

SAFETY AIR

10.6. Hazardous decomposition products

ACETONE

May develop: ketenes,irritant substances.

(R)-P-MENTHA-1,8-DIENE

In decomposition develops: carbon dioxide,nitrogen oxide.

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)

SAFETY AIR

ATE (Oral) of the mixture: >2000 mg/kg
ATE (Dermal) of the mixture: Not classified (no significant component)

PROPAN-2-OL

LD50 (Dermal): 12800 mg/kg Rat
LD50 (Oral): 4710 mg/kg Rat
LC50 (Inhalation vapours): 72,6 mg/l/4h Rat

ISOBUTANE

LC50 (Inhalation vapours): 52000 ppm/2h (Rat)

ACETONE

LD50 (Dermal): > 15800 mg/kg (Rat)
LD50 (Oral): 5800 mg/kg (Rat)
LC50 (Inhalation mists/powders): 76 mg/l/4h (Rat)

(R)-P-MENTHA-1,8-DIENE

LD50 (Dermal): > 5000 mg/kg (Rabbit)
LD50 (Oral): > 2000 mg/kg (Rat)

Orange sweet ext.

LD50 (Oral): 200 mg/kg (Rat)
LC50 (Inhalation mists/powders): 500 mg/l/4h (Rat)

Rectified Hydrocarbons by-products from synthetic process of Turpentine and acid, alcohols fraction

LD50 (Dermal): 5000 mg/kg (Rabbit)
LD50 (Oral): 3200 mg/kg (Rat)

Cloruro di didecildimetilammonio

LD50 (Dermal): 3342 mg/kg (Rabbit)
STA (Oral): 100 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)

(S)-p-Mentha-1,8-diene

LD50 (Dermal): > 2000 mg/kg
LD50 (Oral): > 2000 mg/kg

CITRAL

LD50 (Dermal): 2250 mg/kg (Rabbit)
LD50 (Oral): 4960 mg/kg (Rat)

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

SAFETY AIR

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

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

May cause drowsiness or dizziness

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

SAFETY AIR

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

Cloruro di didecildimetilammonio

LC50 - for Fish	0,19 mg/l/96h (Pimephales promelas)
EC50 - for Crustacea	0,062 mg/l/48h (Daphnia)
Chronic NOEC for Fish	0,032 mg/l (Danio rerio)
Chronic NOEC for Crustacea	0,01 mg/l (Daphnia magna)

(R)-P-MENTHA-1,8-DIENE

LC50 - for Fish	0,702 mg/l/96h (Pimephales promelas)
EC50 - for Crustacea	0,577 mg/l/48h (Daphnia magna)

ACETONE

LC50 - for Fish	11000 mg/l/96h (Albumus albumus)
EC50 - for Crustacea	8800 mg/l/48h (Daphnia pulex)
Chronic NOEC for Crustacea	2212 mg/l (Daphnia pulex)

CITRAL

LC50 - for Fish	6,78 mg/l/96h (Leuciscus idus)
EC50 - for Crustacea	6,8 mg/l/48h (Daphnia magna)
EC50 - for Algae / Aquatic Plants	103,8 mg/l/72h (Desomdemus subspicatus)

12.2. Persistence and degradability

Cloruro di didecildimetilammonio

Rapidly degradable

(R)-P-MENTHA-1,8-DIENE

Solubility in water	13,8 mg/l
---------------------	-----------

Rapidly degradable

100% 28d

BUTANE

Solubility in water	0,1 - 100 mg/l
---------------------	----------------

Rapidly degradable

PROPANE

Solubility in water	0,1 - 100 mg/l
---------------------	----------------

Rapidly degradable

PROPAN-2-OL

Rapidly degradable

SAFETY AIR

ACETONE

Rapidly degradable

Orange sweet ext.

Degradability: information not available

CITRAL

Rapidly degradable

12.3. Bioaccumulative potential

Cloruro di didecildimetilammonio

BCF 81

(R)-P-MENTHA-1,8-DIENE

Partition coefficient: n-octanol/water 4,83

BCF 660

BUTANE

Partition coefficient: n-octanol/water < 2,8

PROPANE

Partition coefficient: n-octanol/water 1,09

PROPAN-2-OL

Partition coefficient: n-octanol/water 0,05

ACETONE

Partition coefficient: n-octanol/water -0,24 Log Kow

BCF 3

CITRAL

BCF 89,72 -

12.4. Mobility in soil

ACETONE

Partition coefficient: soil/water 17

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 \geq 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

SAFETY AIR

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

SAFETY AIR

ADR / RID:	HIN - Kemler: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
IMDG:	Special provision: - 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

Regulated explosives precursor

The acquisition, introduction, possession or use of that regulated explosives precursor by members of the general public is subject to reporting obligations as set out in Article 9.

All suspicious transactions and significant disappearances and thefts must be reported to the relevant national contact point.

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

SAFETY AIR

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Regulation (EC) No. 648/2004

Ingredients according to Regulation (EC) No. 648/2004

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

PROPANE

BUTANE

ISOBUTANE

ACETONE

(R)-P-MENTHA-1,8-DIENE

Cloruro di didecildimetilammonio

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
Press. Gas	Pressurised gas
Acute Tox. 3	Acute toxicity, category 3
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B

SAFETY AIR

Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
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 2	Hazardous to the aquatic environment, chronic toxicity, category 2
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 explode if heated.
H301	Toxic if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains <name of sensitising substance>. May produce an allergic reaction.

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

SAFETY AIR

- 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).

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:

02 / 03 / 07 / 08 / 09 / 11 / 12 / 15 / 16.