SAFETY DATA SHEET

CLIMASAN spray

1. Identification of the substance or mixture and of the company/enterprise

1.1 Identification of the product

Trade name	:	**CLIMASAN spray**
ISS code	:	**CLISA**

1.2 Identified pertinent uses of the substance or mixture and uses advised against

Consumer's uses [SU21], Professional uses [SU22]	:	**sanitizer, deodorant, bacteriostatic, ready-to-use for air conditioner filters – 600 ml cylinder.**
Uses advised against	:	**all uses not expressly mentioned in the label.**

1.3 Information on the safety data sheet's supplier

FACOT CHEMICALS S.n.c. -Via Crema, 44 – 26010 CAPRALBA (CR) – ITALY

Phone +39 0373 450642-3 – Fax +39 0373 450751 – E-mail info@facot.it – Website www.facot.it

E-mail of the competent person: msds@facot.it

1.4 Emergency phone number

+39 0373 450642 (from 8.30 a.m. to 12.30 p.m. and from 2.00 p.m. to 6.00 p.m.)

In paragraph 16 of the present data sheet you will find the phone numbers of the Italian Poison Centres available 24 hours a day.

2. Identification of the dangers

2.1 Classification of the substance or mixture

2.1.1 Classification according to the (EC) Regulation No. 1272/2008:

Pictograms	:	GHS02, GHS07.
Class and hazard category codes	:	Flam. Aerosol 1, Eye irrit. 2, STOT SE 3.
Hazard statement codes	:	H222 = Extremely flammable aerosol . H336 = May cause drowsiness or dizziness. H319 = May cause serious eye irritation. H229 = Pressurized container: may burst if heated.

2.1.2 Classification according to the Directive 1999/45/EEC:

Classification	:	F; R11 Xi; R36 R67.
Nature of the special risks attributed	:	R11 = Highly flammable. R36 = Irritating to eyes. R67 = Vapours inhalation may cause drowsiness and dizziness.

2.1.3 Adverse effects

Aerosol is extremely flammable even at low temperature, with fire risk. If the product comes into contact with the eyes, it may cause severe irritation that may last for over 24 hours. The vapours repeated inhalation may cause drowsiness and dizziness. Pressurized container. Protect from sunlight and do not expose to a temperature exceeding 50 °C. Aerosol co ntainers burst if heated, they may be thrown violently to a considerable distance and an hazardous spread of fire may occur.

2.2 Label elements

Labelling in accordance with the (EC) Regulation No. 1272/2008:

Pictograms : GHS02, GHS07

Signal word codes : Hazard

Hazard statement codes :

H222 = Extremely flammable aerosol
H336 = May cause drowsiness or dizziness
H319 = May cause serious eye irritation
H229 = Pressurized container: may burst if heated

Additional hazard statement codes :

EUH208 = Contains amyl cinnamal, hydroxycitronellal. May cause an allergic reaction.

Precautionary statements :

General

P101 = If medical advice is needed, have product container or label at hand.
P102 = Keep out of reach of children.

Prevention

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

Reaction

P305+P351+P338 = IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses if present and easy to do – continue rinsing.
P337+P313 = If eye irritation persists get medical advice/attention.
Storage
P410+P412 = Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
It contains propan-2-ol

2.3 Other hazards

Aerosol containers burst if heated, they may be thrown violently to a considerable distance and an hazardous spread of fire may occur. Do not operate in areas not adequately ventilated and in places below ground level. As gases are heavier, they tend to form dangerous accumulations.

3. Composition/information on the ingredients

3.1 Composition/information on the ingredients

Refer to point 16 for the complete text of risk phases and hazard statements.
Petroleum gas contains benzene in percentage lower than 0,1 % weight/weight (EINECS N° 200-753-7) and 1,3-butadiene in percentage lower than 0,1% weight/weight (EINECS N° 203-450-8).

Substance	Concentration	Classification	Index	CAS	EINECS	REACh
propan-2-ol	> 30 ≤ 50%	F; R11 Xi; R36 R67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE3, H336	603-117-00-0	67-63-0	200-661-7	01-2119457558-25
propane	> 10 ≤ 20%	F+; R12 Flam. Gas 1, H220; Press. Gas, H280	601-003-00-5	74-98-6	200-827-9	01-2119486944-21
butane	> 5 ≤ 10%	F+; R12 Flam. Gas 1, H220; Press. Gas, H280	601-004-00-0	106-97-8	203-448-7	01-2119474691-32
isobutane	> 1 ≤ 5%	F+; R12 Flam. Gas 1, H220; Press. Gas, H280	601-004-00-0	75-28-5	200-857-2	01-2119485395-27
amyl cinnamal	> 0,1 ≤ 1 %	Xi; R38 Xi; R43 N; R51/53 Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 2, H411	- - -	122-40-7	204-541-5	- - -
hydroxycitronellal	> 0,1 ≤ 1 %	Xi; R36 Xi; R43 Skin Sens. 1, H317; Eye Dam 1, H318; Eye Irrit. 2, H319	- - -	107-75-5	203-518-7	- - -

4. First-aid measures

4.1 Description of the firs-aid measures

Inhalation
Ventilate the room. If you feel unwell, seek medical advice.

Direct contact with skin (of the pure product)
Wash with plenty of water and soap and rinse accurately.

Direct contact with eyes (of the pure product)
Remove contact lenses, if present and easy to do. Wash immediately and thoroughly with plain water for about 15 minutes, holding eyelids open. Seek specialist medical care.

Ingestion
Do not induce vomiting and do not not administer anything without express advice of the doctor to be contacted promptly. Keep the victim at rest, while waiting for the doctor.

4.2 Main symptoms and effects, both acute and delayed

Data not available.

4.3 Indication of the possible need of consulting immediately a doctor and of special treatments

See point 4.1 Description of first-aid measures.

5. Fire-fighting measures

5.1 Extinguishing media

Recommended extinguishing media
Pulverised water, CO2, foam, chemical powders according to the materials involved in the fire.

Extinguishing media to be avoided
Direct waterjets.

5.2 Special hazards deriving from the substance or mixture

Aerosol containers burst if heated, they may be thrown violently to a considerable distance and an hazardous spread of fire may occur. Pressurized product stored in an hermetically sealed metal container (max. pressure test 15 bar). Cool the containers with pulverised water, trying to move them from fire. Aerosol containers burst if heated and they may be thrown violently to a considerable distance (protect head, wearing a safety helmet).

5.3 Recommendations for fire-extinguishing staff

Use respiratory system protections. Wear safety helmet and complete protective clothing. Pulverised water can be used to protect people involved in fire-extinguishing operations. It is also recommended to use self-contained breathing apparatuses, in particular when operating in confined and poorly-ventilated spaces and in any case when using halogen extinguishing agents. Cool the containers with waterjets.

6. Measures in the event of unplanned releases

6.1 Personal precautions, protective devices and procedures in the event of an emergency

For those who don't intervene directly
Leave the area surrounding the leakage or release. Do not smoke. Remember that possible overheating could throw the cylinder to a considerable distance.

For those who intervene directly
Considering the aerosol cylinder tightness, it is highly unlikely that considerable spillage may occur. However, should any container suffer such a damage to cause a leakage, isolate the cylinder concerned taking it outdoors or covering it with inert or non-combustible material (e.g. sand, earth, vermiculite), being wise enough to avoid any ignition point that may cause a severe fire risk. Prevent the spilled product from reaching watercourses and wastewaters, keep away from any ignition source. Vapours may be released to ground level and cause explosion or intoxication risks in areas below ground level (cellars, pits etc.). Wear protective gloves and clothing. Eliminate all open flames and possible sources of ignition. Do not smoke. Arrange an adequate ventilation. Evacuate the danger area and, in case, seek expert advice.

6.2 Environmental precautions

Isolate the cylinder concerned covering it with inert or non-combustible material (e.g. sand, earth, vermiculite). Prevent the spilled product from reaching watercourses and wastewaters, keep away from any ignition source. Vapours may be released to ground level and cause explosion or intoxication risks in areas below ground level (cellars, pits etc.).

6.3 Methods and materials for containment and clean-up

Deliver exclusively to specialized firms. Contain and absorb the spilled liquid with absorbing inert material s(e.g. sand, earth, sepiolite, other specific products) and store the damaged containers in vats equipped with a closing device.

6.4 Reference to other sections

Refer to points 8 and 13 for further information.

7. Handling and storage

7.1 Precautions for safe handling

Vapours are heavier than air and may spread close to the ground, forming explosive mixtures with air. Prevent the formation of flammable or explosive concentrations in the air. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn even after use. Do not spray on flames or incandescent bodies. Use in sufficiently ventilated areas.

7.2 Conditions for safe storage, including potential incompatibilities

Keep the containers in upright safe position, preventing possible falls or bumps. Pressurized container. Store in ventilated places in the original packagings and keep away from heat sources and sunlight. Store always in well-ventilated areas. Keep away from open flames and sparks. Avoid the accumulation of electrostatic charges.

7.3 Specific end uses

No data available.

8. Individual exposure/protection monitoring

8.1 Control parameters

Relating to the contained substances

propan-2-ol
TLV: 200 ppm as TWA 400 ppm as STEL A4 (not classifiable as carcinogenic in humans); (ACGIH 2004).
MAK: 200 ppm 500 mg/m³. Peak limitation category: II(2); Pregnancy risk group: C; (DFG 2004).

propane
TLV: (aliphatic hydrocarbons) 1000 ppm as TWA (ACGIH 2005).
MAK: 1000 ppm 1800 mg/³. Peak limitation category: II(4). Pregnancy risk group: D; (DFG 2006).

butane
TLV: (aliphatic hydrocarbon gases, Alkane C1-C4) 1000 ppm (as TWA) (ACGIH 2005).
MAK: 1000 ppm 2400 mg/m³. Peak limitation category: II(4). Pregnancy risk group: D; (DFG 2006).

i**sobutane**
TLV: (aliphatic hydrocarbon gases, Alkane C1-C4) 1000 ppm (as TWA) (ACGIH 2005).
MAK: 1000 ppm 2400 mg/m³. Peak limitation category: II(4). Pregnancy risk group: D; (DFG 2006).

8.2 Exposure controls

Individual protection measures

a) Eye / face protection
Wear safety glasses conform to EN-166.

b) Skin protection
i) Hand protection
When handling the product, wear solvent resistant protective gloves (EN374-1, -2, -3)
ii) Other
Avoid direct contact with skin. Use preferably cotton anti-static clothing.

c) Breathing protection
Operate in sufficiently ventilated areas. If vapours/aerosol are present and/or if using the product in confined areas without a sufficient air circulation, use respiratory system protective devices conform to the standard UNI EN 529:2006 (Respiratory system protective devices –

Recommendations for selection, use, care and maintenance – Guidance document), establishing the adequate OPF value (operational protection factor).

d) Thermal hazards

Protect from sunlight and do not expose to temperatures exceeding 50 ℃.

Environmental exposure controls

Minimize the product release into the environment.

9. Physical and chemical properties

9.1 Information on fundamental physical and chemical properties

Physical and chemical properties	Value
Aspect	Liquid in gas suspension
Odour	Characteristic
pH at 20 ℃	Not pertinent
Boiling point/range	~ 100 ℃
Container volume	600 ml
Product volume	500 ml
Pressure at 20 ℃	3,5 ± 0,3 bar
Pressure at 50 ℃	Not available
Cylinder test pressure	15 bar
Liquid phase flash point	~ 38 ℃
Propellant flammability	Extremely flammable
Upper/lower flammability or explosivity limit	1,8 + 9,5% in volume
Relative density	0,810 ± 0,005
Water solubility	Soluble
Fat solubility	Not available
Autoflammability	~ 360 ℃

9.2 Other information

VOC (Directive 1999/31/CE) Not available

10. Stability and reactivity

10.1 Reactivity

Under normal conditions of use and following the recommended method of use, no reactivity risk.

10.2 Chemical stability

The aerosol product is stable for a minimum period of 36 months and under normal storage conditions no hazardous reactions may occur because the container is almost hermetically sealed.

10.3 Possible hazardous reactions

Under normal conditions of use and following the recommended method of use, no hazardous reactions are provided for.

10.4 Conditions to be avoided

In order to prevent the possible deterioration of the container's metal, keep away from acid or basic reaction products. Pay attention to heat because with temperatures exceeding 50 ℃ there is such a pressu re increase inside the container that may cause the cylinder deformation and explosion.

10.5 Incompatible materials

Strongly acid, basic and oxidant substances or preparations in general.

10.6 Hazardous decomposition products

In case of thermal decomposition fumes with harmful effects on health may be released.

11. Toxicological information

11.1 Information on toxicological effects

ATE(mix) oral = 0,0 mg/kg

AE(mix) dermal = 0,0 mg/kg

ATE(mix) inhal = 0,0mg/l/4 h

a) acute toxicity : not applicable.

b) skin corrosion/irritation : not applicable.

c) serious eye damage /irritation : if it comes into contact with eyes, it causes severe irritation which may last for over 24 hours.

d) respiratory system or skin sensitisation : not applicable.

e) germ cell mutagenicity : not applicable.

f) carcinogenicity : not applicable.

g) reproduction toxicity : not applicable.

h) specific target organ toxicity (STOT) – single exposure : attention: vapour inhalation may cause drowsiness and dizziness.

i) specific target organ toxicity (STOT) – repeated exposure	:	not applicable.
j) aspiration hazard	:	not applicable.
Information on the contained substances	:	
propan-2-ol		
EXPOSURE ROUTES	:	the substance may be absorbed through the organism by vapour inhalation.
INHALATION RISKS	:	a dangerous air contamination may be reached quite slowly by the substance evaporation at 20 ℃, but much more quickly by atom isation or by dispersion.
SHORT-TERM EXPOSURE EFFECTS	:	the substance is irritating to eyes and respiratory system. The substance may determine effects on the central nervous system, causing depression. The exposure that is much higher than OEL may lead to a loss of consciousness.
LONG-TERM OR REPEATED EXPOSURE EFFECTS	:	the liquid has degreasing features on skin.
ACUTE RISKS / SYMPTOMS:		
INHALATION	:	cough. Dizziness. Drowsiness. Headache. Sore throat. See Ingestion.
SKIN	:	dry skin.
EYES	:	redness.
INGESTION	:	abdominal pain. Breathing difficulty. Nausea. Unconscious state. Vomit (See also Inhalation).
NOTES	:	the use of alcoholic beverages increases harmful effects. LD50 Oral (rat) (mg/kg of body weight): 2100 LD50 Skin (rat or rabbit) (mg/kg of body weight): 2100
propane / butane / isobutane		
EXPOSURE ROUTES	:	the substance may be absorbed through the organism by inhalation.
INHALATION RISKS	:	in case of leakage the liquid evaporates very quickly, replacing the air and causing indoors a severe risk of asphyxia.
SHORT-TERM EXPOSURE EFFECTS	:	a rapid evaporation of the liquid may cause freezing. The substance may cause effects on the central nervous system.
ACUTE RISKS / SYMPTOMS:		
INHALATION	:	drowsiness, unconscious state.
SKIN	:	FREEZING IN CONTACT WITH THE LIQUID.
EYES	:	FREEZING IN CONTACT WITH THE LIQUID.
NOTES	:	Check the oxygen content before entering the area. High concentrations in the atmosphere determine shortage of oxygen, causing loss of consciousness or death.
amyl cinnamal		
LD50 Skin (rat or rabbit) (mg/kg of body weight) = 3730		

12. Environmental information

12.1 Toxicity

Data not available.

12.2 Persistence and degradability

The preparation is volatile and it will split up in the air phases, dissipating quickly.

12.3 Bioaccumulation potential

Data not available.

12.4 Mobility in soil

Data not available.

12.5 Results of the PTB and vPvB assessment

The report on chemical safety is not provided for.

12.6 Other adverse effects

Data not available.

13. Disposal considerations

13.1 Waste treatment methods

Waste must be disposed according to the current regulations, delivering empty containers to a specialized disposer equipped to handle safely pressurized canisters containing residual flammable liquids and gases. If heated at temperatures exceeding 70 ℃, the empty container may burst. Operate in compliance with local and national provisions in force.

14. Transport information

14.1 ONU number

1950

Possible ADR exemption (sticking the label shown on the right side), if the following conditions are fulfilled:
Combined packagings: inner packaging 1 L 30 kg package
Inner packagings arranged in trays with heat-shrinkable or extensible wrapping: inner packaging 1 L 20 kg package.

14.2 ONU shipment name

Flammable AEROSOL.

14.3 Transport-related hazard classes

Class	:	2
Label	:	2.1
Tunnel restriction code	:	D
Limited quantities	:	1L
EmS	:	F-D, S-U

14.4 Packing group

Not provided for.

14.5 Environmental hazards

Environmentally hazardous product	:	NO
Marine contaminant	:	NO

14.6 Users' special precautions

The packages must not be thrown or subject to bumps. The canisters must be stored in vehicles or containers in such a way to prevent them from overturning or falling down.
When the objects are placed on pallets and these latter are stacked, every pallet layer must be uniformly allocated on the layer below interposing, if necessary, an adequately resistant material.

14.7 Bulk transport according to enclosure II of MARPOL 73/78 and to IBC code

Bulk transport not provided for.

15. Regulatory information

15.1 Special health, safety and environmental rules and legislation for the substance or mixture

Legislative Decree N°81 dated 09/04/2008 – TITLE I X Paragraph II
It does not contain any substances defined as carcinogenic in accordance with Art. 234.
The use of this product entails the obligation of the “Risks Assessment” by the employer according to provisions of Legislative Decree N°81 dated April 9th 2008. Workers exposed to this chemical agent must not be subject to any health surveillance if results of risks assessment prove that, with reference to type and quantity of the hazardous chemical agent and to frequency and exposure mode to such agent, there is only a “Moderate Risk” for health and safety of workers and that measures provided for in the same Legislative Decree are sufficient to reduce the risk.

Government Legislative Decree N°52 dated 03/02/19 97
(Implementation of Directive 92/32/EEC on classification, packing and labelling of hazardous substances).

Government Legislative Decree N°65 dated 14/03/20 03
(Implementation of Directives 1999/45/EC and 2001/60/EC on classification, packing and labelling of hazardous preparations).

Government Legislative Decree N°25 dated 02/02/20 02
(Implementation of Directive 98/24/EC on health protection and safety of workers against risks deriving from chemical agents while working).

Ministerial Decree dated 26/02/2004
(Drawing-up of a first list of indicative limit values relating to professional exposure to chemical agents).

Ministerial Decree dated 03/04/2007
(Implementation of Directive 2006/8/EC of the Commission dated January 23rd 2006 that, to adjust them to the technical progress, amends enclosures II, III and V of Directive 1999/45/EC of the European Parliament and Council on approximation of legislative, regulatory and administrative provisions relating to classification, packing and labelling of hazardous preparations).

(EC) Regulation N°1907/2006 of the European Parliament and Council dated December 18th 2006
On registration, assessment, authorization and restriction of chemical substances (REACH), establishing an European Agency for chemical substances, that amends Directive 1999/45/EC and abrogates (EEC) Regulation N°793/93 of the Council and (EC) Regulation N°1488/94 of the Commission as well as Directive 76/769/EEC of the Council and Directives of the Commission 91/155/EEC, 93/67/EEC, 93/105/EEC and 2000/21/EC

(EC) Regulation N°1272/2008 of the European Parliament and Council dated December 16th 2008
On classification, packing and labelling of substances and mixtures that amends and abrogates Directives 67/548/EEC and 1999/45/EC and that amends (EC) Regulation N°1907/2006.

(EC) Regulation N°790/2009 of the European Commission dated August 10th 2009
For the adjustment to technical and scientific progress, it amends (EC) Regulation N. 1272/2008 of the European Parliament and Council on classification, packing and labelling of substances and mixtures.

Council Directive N°75/324/EEC dated May 20th 1975 consolidated to the Directive N°2013/10/UE dated March 19th 2013
For approximation of legislations of Member States relating to aerosols.

15.2 Chemical safety assessment

Chemical safety assessment not provided for.

16. Other information

16.1 Other information

Description of the risk phrases mentioned in paragraph 3
R11 = Highly flammable
R12 = Extremely flammable
R36 = Irritating to eyes
R38 = Irritating to skin
R43 = May cause sensitisation by skin contact
R51 = Toxic to aquatic organisms
R53 = May cause long-term adverse effects in the aquatic environment
R67 = Vapours inhalation may cause drowsiness and dizziness

Description of the hazard statements mentioned in paragraph 3
H225 = Highly flammable liquid and vapours
H319 = May cause serious eye irritation
H336 = May cause drowsiness or dizziness
H220 = Extremely flammable gas
H280 = Contains gas under pressure; may explode if heated
H315 = Causes skin irritation
H317 = May cause an allergic skin reaction
H411 = Toxic to aquatic organisms with long-term effects
H318 = May cause serious eye damage

Classification carried out according to the data of all mixture components

If needed, please find below the phone numbers of some Italian Poison Centres available 24 hours a day:
(www.salute.gov.it/servizio/documenti/centri_antiveleni.pdf)

FLORENCE	Centro Antiveleni di Firenze	(www.antiveleni.altervista.org)	+39 055	7947819
GENOA	Servizio Antiveleni		+39 010	56361245
MILAN	Centro Antiveleni	(www.centroantiveleni.org)	+39 02	66101029
NEAPLES	Centro Antiveleni Ospedale Cardarelli	(www.ospedalecardarelli.it/ospedale/centro-anti-veleni)	+39 081	7472870
PADUA	Servizio Antiveleni		+39 049	8275078
PAVIA	IRCCS Fondazione S. Maugeri	(www.cavpavia.it)	+39 0382	24444
ROME	Centro Antiveleni Policlinico Gemelli	(www.tox.it)	+39 06	3054343
ROME	Centro Antiveleni Università La Sapienza	(www.uniroma1.it/cav_cartella)	+39 06	49970698
TURIN	Centro Antiveleni		+39 011	6637637

MAIN BIBLIOGRAPHIC SOURCES:

ACGIH	American Conference of Governmental Industrial Hygienists
ECB	European Chemicals Bureau
IARC	International Agency for Research on Cancer
IPCS	International Programme on Chemical Safety (Cards)
NIOSH	Registry of toxic effects of chemical substances (1983)
OSHA	European Agency for Safety and Health at Work
PHATOX	Pharmacological and Toxicological Data and Information Network
WHO	World Health Organization

Safety **D**ata **S**heet in conformity with (EC) Regulation N°453/2010 dated May 20th 2010 and subsequent adjustments.

| The paragraphs that have been modified compared to the previous revision are highlighted by a vertical line on the left.

The present safety data sheet replaces in full all the previous versions.

The information reported on the present safety data sheet were obtained from the best sources available on the market we were aware of on the above revision date. Neither the company holding the present safety data sheet nor the subsidiary companies will be able to accept complaints deriving from an improper use of the information reported herein or from an improper use in the product application. Please pay particular attention to the use of the preparations because an improper use may increase their dangerousness.