

CHEMICAL SAFETY DATA SHEET  
according to 2020/878/EC (1907/2006/EC Article 31)

2312702

Reviewed on: 21.12.2022  
Printing date: 21.12.2022

**SECTION 01: Identification of the substance/mixture and of the company/undertaking**

## 1.1 Product identifier

- Trade name:  
CLOVE stem Mada ORGANIC OIL
- Article number:  
B481
- CAS Number:  
8000-34-8
- EC Number:  
904-912-8
- No CAS EINECS:  
84961-50-2
- Registration number  
01-2119970580-36-0004

1.2 Relevant identified uses of the substance or mixture and uses advised against  
Application of the substance / the preparation  
Only for industrial use

## 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:  
GOLGEMMA TEL: +33(0)4.68.74.17.89  
Route de FA email: fds@golgemma.com  
11260 ESPERAZA  
FRANCE

1.4 Emergency telephone number:  
FR-ORFILA (INRS):+33(0)1 45 42 59 59

**SECTION 02: Hazards identification**

## 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008



GHS08

Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways.



GHS07

Acute Tox. 4 - H302 Harmful if swallowed.  
Acute Tox. 4 - H312 Harmful in contact with skin.  
Skin Irrit. 2 - H315 Causes skin irritation.  
Eye Irrit. 2 - H319 Causes serious eye irritation.  
Skin Sens. 1 - H317 May cause an allergic skin reaction.

## 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms



GHS08 GHS07

- Signal word  
Danger
- Hazard statements  
H302+H312 Harmful if swallowed or in contact with skin.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.
- Precautionary statements  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.

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P270 Do not eat, drink or smoke when using this product.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.

## 2.3 Other hazards

- Results of PBT and vPvB assessment
  - PBT:  
Not applicable.
  - vPvB:  
Not applicable.
- Determination of endocrine-disrupting properties  
Substance is not listed.

### SECTION 03: Composition/information on ingredients

## 3.1 Substances

**CAS No.**      **Description**  
8000-34-8      Syzygium aromaticum (L.) Merr. & L.M.Perry (Syn :  
                         Eugenia caryophyllus (Sprengel) Bullock et S.  
                         Harrison)

- Identification number(s)
- EC number:  
904-912-8

- Dangerous components:

CAS Number		%
97-53-0	Eugenol EC number: 202-589-1 ⚠ Eye Irrit. 2 - H319, Skin Sens. 1B - H317	50,001-100
87-44-5	beta-Caryophyllene EC number: 201-746-1 ⚠ Asp. Tox. 1 - H304; ⚠ Skin Sens. 1B - H317	5,001-10,00
93-28-7	4-allyl-2-methoxyphenyl acetate ⚠ Acute Tox. 4 - H302	1,001- 5,00
1139-30-6	Caryophyllene oxide EC number: 214-519-7 ⚠ Aquatic Chronic 2 - H411	0,101-1,00
119-36-8	methyl salicylate EC number: 204-317-7 ⚠ Acute Tox. 4 - H302, Skin Sens. 1B - H317; ⚠ Repr. 2 - H361d; Aquatic Chronic 3 - H412 Oral: ATE = 890 mg/kg	0,101-1,00
98-01-1	2-furaldehyde EC number: 202-627-7 ⚠ Acute Tox. 3 - H301, Acute Tox. 2 - H330; ⚠ Flam. Liq. 3 - H226; ⚠ Acute Tox. 4 - H312, Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, STOT SE 3 - H335; ⚠ Carc. 2 - H351; Aquatic Chronic 3 - H412	0,101-1,00
97-54-1	isoeugenol EC number: 202-590-7 ⚠ Acute Tox. 4 - H302, Acute Tox. 4 -	0,101-1,00

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120-51-4	<p>H312, Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1A - H317; Skin Sens. 1A; H317: C &gt;= 0,01 % <b>Benzyl benzoate</b> EC number: 204-402-9 ⚠ Acute Tox. 4 - H302; ⚠ Aquatic</p>	0,101-1,00
93-15-2	<p>Acute 1 - H400, Aquatic Chronic 2 - H411 <b>methyl eugenol</b> EC number: 202-223-0 ⚠ Acute Tox. 4 - H302; ⚠ Muta. 2 - H341, Carc. 2 - H351</p>	0,101-1,00

**SECTION 04: First aid measures**

4.1 Description of first aid measures

- General information:  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.  
Seek immediate medical advice.
- After inhalation:  
Supply fresh air and to be sure call for a doctor.
- After skin contact:  
If skin irritation continues, consult a doctor.  
Immediately wash with water and soap and rinse thoroughly.
- After eye contact:  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:  
Call for a doctor immediately.
- Information for doctor:

4.2 Most important symptoms and effects, both acute and delayed  
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed  
No further relevant information available.

**SECTION 05: Firefighting measures**

5.1 Extinguishing media

- Suitable extinguishing agents:  
CO<sub>2</sub>, sand, extinguishing powder. Do not use water.  
Use fire extinguishing methods suitable to surrounding conditions.
- For safety reasons unsuitable extinguishing agents:  
Water with full jet

5.2 Special hazards arising from the substance or mixture  
Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters

- Protective equipment:  
Do not inhale explosion gases or combustion gases.
- Additional information  
Cool endangered receptacles with water spray.

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Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Keep away from ignition sources.

**6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.

**6.3 Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.

**6.4 Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**SECTION 07: Handling and storage****7.1 Precautions for safe handling**

Keep receptacles tightly sealed.  
Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.  
Handle with care. Avoid jolting, friction and impact.

- Information about fire - and explosion protection:  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.

**7.2 Conditions for safe storage, including any incompatibilities****Storage:**

- Requirements to be met by storerooms and receptacles:  
Store only in the original receptacle.  
Use only receptacles specifically permitted for this substance/ product.
- Information about storage in one common storage facility:  
Not required.
- Further information about storage conditions:  
Keep container tightly sealed.  
Protect from heat and direct sunlight.  
Store receptacle in a well ventilated area.

**7.3 Specific end use(s)**

No further relevant information available.

**SECTION 08: Exposure controls/personal protection****8.1 Control parameters**

- Ingredients with limit values that require monitoring at the workplace:  
Not required.
- Additional information:  
The lists valid during the making were used as basis.

**8.2 Exposure controls**

- Individual protection measures, such as personal protective equipment
- General protective and hygienic measures:  
The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Do not inhale gases / fumes / aerosols.  
Do not inhale dust / smoke / mist.  
Avoid contact with the eyes.
- Respiratory protection:

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In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.  
Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye/face protection**

Safety glasses

**SECTION 09: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**General Information**

<b>Physical state</b>	Fluid
<b>Colour:</b>	colourless to dark yellow
<b>Odour:</b>	spicy
<b>Odour threshold:</b>	Not determined.
<b>Melting point/freezing point:</b>	-50,0 °C
<b>Boiling point or initial boiling point and boiling range</b>	270,0 °C
<b>Flammability</b>	Not determined.
<b>Lower and upper explosion limit</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Flash point:</b>	141,0 °C    NFT 60-103 CC
<b>Decomposition temperature:</b>	Not determined.
<b>pH</b>	Not determined.
<b>Viscosity:</b>	
<b>Kinematic viscosity</b>	Not determined.
<b>Dynamic:</b>	Not determined.
<b>Solubility</b>	
<b>water:</b>	at 20,00 °C    2,30 g/l
<b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
<b>Vapour pressure:</b>	at 20,00 °C    0,0090 mbar
<b>Density and/or relative density</b>	
<b>Density:</b>	Not determined.
<b>Relative density</b>	1,0420 1,065 D20/20
<b>Vapour density</b>	Not determined.
<b>9.2 Other information</b>	No further relevant information available.
<b>Appearance:</b>	
<b>Form:</b>	viscous
<b>Important information on protection of health and environment, and on safety.</b>	
<b>Auto-ignition temperature:</b>	Not determined.
<b>Explosive properties:</b>	Not determined.
<b>Solvent content:</b>	
<b>Solids content:</b>	0,00 %
<b>Change in condition</b>	

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<b>Evaporation rate</b>	Not determined.
<b>Information with regard to physical hazard classes</b>	
<b>Explosives</b>	not applicable
<b>Flammable gases</b>	not applicable
<b>Aerosols</b>	not applicable
<b>Oxidising gases</b>	not applicable
<b>Gases under pressure</b>	not applicable
<b>Flammable liquids</b>	not applicable
<b>Flammable solids</b>	not applicable
<b>Self-reactive substances and mixtures</b>	not applicable
<b>Pyrophoric liquids</b>	not applicable
<b>Pyrophoric solids</b>	not applicable
<b>Self-heating substances and mixtures</b>	not applicable
<b>Substances and mixtures, which emit flammable gases in contact with water</b>	not applicable
<b>Oxidising liquids</b>	not applicable
<b>Oxidising solids</b>	not applicable
<b>Organic peroxides</b>	not applicable
<b>Corrosive to metals</b>	not applicable
<b>Desensitised explosives</b>	not applicable

### SECTION 10: Stability and reactivity

**10.1 Reactivity**

No further relevant information available.

**10.2 Chemical stability**

**10.3 Possibility of hazardous reactions**

No dangerous reactions known.

**10.4 Conditions to avoid**

No further relevant information available.

**10.5 Incompatible materials:**

No further relevant information available.

**10.6 Hazardous decomposition products:**

Not determined.

### SECTION 11: Toxicological information

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

- Acute toxicity  
Harmful if swallowed.

LD/LC50 values relevant for classification:

**ISO LD/LC**

**8000-34-8 Syzygium aromaticum (L.) Merr. & L.M.Perry (Syn :  
Eugenia caryophyllus (Sprengel) Bullock et S.  
Harrison)**

Oral, LD50: 1370 mg/kg (rat) (calculated)  
Dermal, LD50: 1200 mg/kg (Rabbit) (calculated)

**97-53-0 Eugenol**

Oral, LD50: 1930 mg/kg (rat)

**87-44-5 beta-Caryophyllene**

Oral, LD50: > 5000 mg/kg (rat) (Hart and Wong 1971)

**1139-30-6 Caryophyllene oxide**

Oral, LD50: >5000 mg/kg (rat) (Moreno 1978)

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**119-36-8 methyl salicylate**

Oral, LD50: 890 mg/kg (ATE)  
Oral, LD50: 887 mg/kg (rat)

**98-01-1 2-furaldehyde**

Oral, LD50: 65 mg/kg (rat)

**97-54-1 isoeugenol**

Oral, LD50: 1560 mg/kg (rat)

**120-51-4 Benzyl benzoate**

Oral, LD50: 1700 mg/kg (rat)  
Oral, LD50: 3450 mg/kg (mouse) (Bier, 1979)  
Dermal, LD50: 4000 mg/kg (Rabbit)

**93-15-2 methyl eugenol**

Oral, LD50: 810 mg/kg (rat) (Beroza and al., 1975)

• Primary irritant effect:

- Skin corrosion/irritation  
Irritant to skin and mucous membranes.  
Causes skin irritation.

- Serious eye damage/irritation  
Irritating effect.  
Causes serious eye irritation.

• Respiratory or skin sensitisation

**120-51-4 Benzyl benzoate**

Sensitisation, NESIL: 59000 ug/cm<sup>2</sup> (human being) (Standard IFRA)  
Sensitization possible through skin contact.

• Germ cell mutagenicity

**87-44-5 beta-Caryophyllene**

OECD 471 AMES: NEGATIVE (in vitro) (Heck and al., 1989)

**1139-30-6 Caryophyllene oxide**

OECD 471 AMES: NEGATIVE (in vitro) (Richold and al, 1979)

**120-51-4 Benzyl benzoate**

OECD 471 AMES: NEGATIVE (in vitro) (Schunk and al., 1986)

• Carcinogenicity

Not determined.

• Reproductive toxicity

Not determined.

• STOT-single exposure

Not determined.

• STOT-repeated exposure

Not determined.

• Aspiration hazard

May be fatal if swallowed and enters airways.  
May be fatal if swallowed and enters airways.

• Subacute to chronic toxicity:

**87-44-5 beta-Caryophyllene**

Oral, NOAEL: 700 mg/kg (rat) (90 days Schmitt 2016)

11.2 Information on other hazards

• Endocrine disrupting properties

Substance is not listed.

**SECTION 12: Ecological information**

12.1 Toxicity

• Aquatic toxicity:

**8000-34-8 Syzygium aromaticum (L.) Merr. & L.M.Perry (Syn :**

**Eugenia caryophyllus (Sprengel) Bullock et S.**

**Harrison)**

CE50/48h: 1,9 mg/l (daphnia) (QSAR)

ErC50(0-72h): 41 mg/l (algae) (QSAR)

96h-LC50: 3,2 mg/l (fish) (calculated)

**93-15-2 methyl eugenol**

CE50/48h: 38 mg/l (daphnia) (Ministry of the Environment of Japan 2018)

ErC50(0-72h): 22 mg/l (algae) (Ministry of the Environment of Japan 2018)

96h-LC50: 14 mg/l (fish) (Ministry of the Environment of Japan 2018)

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**12.2 Persistence and degradability**

No further relevant information available.

- Behaviour in environmental systems:  
Not determined.

**12.3 Bioaccumulative potential**

No further relevant information available.

**12.4 Mobility in soil**

No further relevant information available.

**12.5 Results of PBT and vPvB assessment**

- PBT:  
Not applicable.
- vPvB:  
Not applicable.

**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

**12.6 Other adverse effects**

No further relevant information available.

- Ecotoxicological effects:  
Not determined.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

- Recommendation  
Must be specially treated adhering to official regulations.
- Uncleaned packaging:
- Recommendation:  
Disposal must be made according to official regulations.

**SECTION 14: Transport information**

**14.1 UN number or ID number**

**ADR** Void

**IMDG** Void

**IATA** Void

**14.2 UN proper shipping name**

**ADR** Void

**IMDG** Void

**IATA** Void

**14.3 Transport hazard class(es)**

**ADR**

**Class** Void

**IMDG**

**Class** Void

**IATA**

**Class** Void

**14.4 Packing group**

**ADR** Void

**IMDG** Void

**IATA** Void

**14.5 Environmental hazards:**

Not applicable.

**14.6 Special precautions for user**

Not applicable.

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14.7 Maritime transport in bulk according to IMO instruments  
Not applicable.

- Transport/Additional information:  
Not applicable.

### SECTION 15: Regulatory information

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

- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II  
Substance is not listed.
- REGULATION (EU) 2019/1148
- Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))  
Substance is not listed.
- Annex II - REPORTABLE EXPLOSIVES PRECURSORS  
Substance is not listed.
- Regulation (EC) No 273/2004 on drug precursors  
Substance is not listed.
- Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors  
Substance is not listed.
- National regulations:
- Technical instructions (air):
- Class Share in %  
I            0,30
- Waterhazard class:  
Generally not hazardous for water.

15.2 Chemical safety assessment:  
A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

The information in this safety data sheet is based on the state of our knowledge at the date indicated. The information in this sheet must be regarded as a description of the safety requirements for the product, they are not to be considered a warranty or quality specification and have no contractual value on properties and application areas thereof. The information contained in this safety data sheet relate to the specific material designated and may not be valid with respect to the product associated with another product or process, unless it is specified in the text of this document.

The required information complies with EU regulations in force. It does not exempt the user from knowing and applying all the national regulations in force.

- Relevant phrases
 

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

- Training hints

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Minimum training in occupational risk prevention is recommended for personnel who will handle this product, in the purpose of facilitating the understanding and interpretation of this form of safety data in the same way as the labeling of the product.

- **Abbreviations and acronyms:**

IFRA:International Fragrance Association IOFI:International Organization of the Flavor Industry IFRA:International Fragrance Association IOFI:International Organization of the Flavor Industry  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation DOT: US Department of Transportation  
IATA: International Air Transport Association IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation ICAO: International Civil Aviation Organisation  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society) CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative vPvB: very Persistent and very Bioaccumulative  
CE50: effective concentration at 50% ErC50:concentration of test substance which results in a 50 percent reduction in either growth rate (ErC50)relative to the control within 72hrs exposure.

- **Sources**

IFRA/IOFI Labelling Manual,REACH registration dossier,supplier information

- \* Data compared to the previous version altered.