

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 10.06.2022

Version number 2.00

Revision: 10.06.2022

### \* 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** Clove oil
- **Article number:** G432
- **Registration number** The substance is exempt from UK REACH-registration.
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Ingredient for pharmaceutical drugs
- **Uses advised against** No relevant information available.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
CAELO  
Caesar & Loretz GmbH  
Herderstr. 31  
D-40721 Hilden  
GERMANY
- **Further information obtainable from:**  
E-mail: info@caelo.de  
Tel.: +49210349940 (during regular opening hours)
- **Emergency telephone number:**  
Poison Information Center Bonn  
Venusberg-Campus 1, 53127 Bonn  
Tel: +49 (0) 228-192400

### 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Eye Irrit. 2 H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**



GHS07



GHS08

- **Signal word** Danger
- **Hazard statements**  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.

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H304 May be fatal if swallowed and enters airways.

**· Precautionary statements**

- P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read carefully and follow all instructions.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P321 Specific treatment (see on this label).  
P331 Do NOT induce vomiting.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**· Other hazards****· Results of PBT and vPvB assessment**

- **PBT:** Not applicable.  
· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

**· Chemical characterisation: Mixtures**

- **CAS-No.** 84961-50-2  
· **EC-No.** 284-638-7  
· **INCI-Name** EUGENIA CARYOPHYLLUS EXTRACT  
· **Description:** Mixture of substances listed below with nonhazardous additions.

**· Dangerous components:**

CAS: 97-53-0	Eugenol	>50–100%
EINECS: 202-589-1	Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 87-44-5	beta-Caryophyllene	>10–20%
EINECS: 201-746-1	Asp. Tox. 1, H304; Skin Sens. 1, H317	
CAS: 93-28-7	Eugenyl acetate	>5–10%
EINECS: 202-235-6	Acute Tox. 4, H302	
CAS: 97-54-1	isoeugenol	>0.1–<1%
EINECS: 202-590-7	Acute Tox. 4, H302; Skin Sens. 1A, H317	

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4 First aid measures

**· Description of first aid measures**

- **General information:** Immediately remove any clothing soiled by the product.  
· **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.  
· **After skin contact:** 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:** If symptoms persist consult doctor.

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- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** In case of fire wear suitable protective clothes and respiratory protection.
- **Additional information**  
Prevent from entering into drains. Fire residues must be disposed in accordance with official regulations.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.
- **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.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Tightly closed. Store at a dry place. At room temperature (+15°C to +25°C).
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store receptacle in a well ventilated area.
- **Storage class:** TRHS 510: 10 Combustible liquids
- **Specific end use(s)** No further relevant information available.

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### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
  - CAS: 97-53-0 Eugenol**  
MAK (Germany) als Dampf und Aerosol;vgl.Abschn.IV
  - CAS: 97-54-1 isoeugenol**  
MAK (Germany) als Dampf und Aerosol;vgl.Abschn.IV
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes.
  - Avoid contact with the eyes and skin.
- **Respiratory protection:** Respiratory with filter.
- **Protection of hands:** Protective gloves
- **Material of gloves**
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  - 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 protection:** Tightly sealed goggles

### \* 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Fluid
Colour:	Yellowish
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
- **Flash point:** >100 °C

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- **Flammability (solid, gas):** Not applicable.
  - **Decomposition temperature:** Not determined.
  - **Auto-ignition temperature:** Product is not selfigniting.
  - **Explosive properties:** Product does not present an explosion hazard.
  - **Explosion limits:**
    - Lower: Not determined.
    - Upper: Not determined.
  - **Vapour pressure:** Not determined.
  - **Density at 20 °C:** 1.047 g/cm<sup>3</sup>
  - **Relative density:** Not determined.
  - **Vapour density:** Not determined.
  - **Evaporation rate:** Not determined.
  - **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
  - **Partition coefficient: n-octanol/water:** Not determined.
  - **Viscosity:**
    - Dynamic: Not determined.
    - Kinematic: Not determined.
  - **Solvent content:**
    - Solids content: 0.0 %
  - **Other information:** No further relevant information available.
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### 10 Stability and reactivity

- **Reactivity:** No further relevant information available.
  - **Chemical stability:**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
  - **Possibility of hazardous reactions:** No dangerous reactions known.
  - **Conditions to avoid:** No further relevant information available.
  - **Incompatible materials:** No further relevant information available.
  - **Hazardous decomposition products:** No dangerous decomposition products known.
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### 11 Toxicological information

- **Information on toxicological effects:**
  - **Acute toxicity:** Based on available data, the classification criteria are not met.
  - **LD/LC50 values relevant for classification:**
    - ATE (Acute Toxicity Estimates)**
    - Oral LD50 6,550–<13,100 mg/kg
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**CAS: 97-53-0 Eugenol**

Oral LD50 1,930 mg/kg (rat)

**CAS: 97-54-1 isoeugenol**

Oral LD50 1,560 mg/kg (rat)

**Primary irritant effect:****· Skin corrosion/irritation** Based on available data, the classification criteria are not met.**· Serious eye damage/irritation**

Causes serious eye irritation.

**· Respiratory or skin sensitisation**

May cause an allergic skin reaction.

**· Additional toxicological information:****· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****· Germ cell mutagenicity** Based on available data, the classification criteria are not met.**· Carcinogenicity** Based on available data, the classification criteria are not met.**· Reproductive toxicity** Based on available data, the classification criteria are not met.**· STOT-single exposure** Based on available data, the classification criteria are not met.**· STOT-repeated exposure** Based on available data, the classification criteria are not met.**· Aspiration hazard**

May be fatal if swallowed and enters airways.

## 12 Ecological information

**· Toxicity****· Aquatic toxicity:** No further relevant information available.**· Persistence and degradability** No further relevant information available.**· Behaviour in environmental systems:****· Bioaccumulative potential** No further relevant information available.**· Mobility in soil** No further relevant information available.**· Additional ecological information:****· General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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

Danger to drinking water if even small quantities leak into the ground.

**· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.**· Other adverse effects** No further relevant information available.

## 13 Disposal considerations

**· Waste treatment methods****· Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**· Uncleaned packaging:****· Recommendation:** Disposal must be made according to local regulations.

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### 14 Transport information

· <b>UN-Number</b>	Not subject to transport regulations.
· <b>ADR, IMDG, IATA</b>	not regulated
· <b>UN proper shipping name</b>	
· <b>ADR, IMDG, IATA</b>	not regulated
· <b>Transport hazard class(es)</b>	
· <b>ADR, ADN, IMDG, IATA</b>	
· <b>Class</b>	not regulated
· <b>Packing group</b>	
· <b>ADR, IMDG, IATA</b>	not regulated
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)** Not listed
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations:**
- **Storage of hazardous substances in in nonstationary vessels (TRGS 510) (Germany)**  
TRHS 510: 10 Combustible liquids
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

The information provided is based on our current level of knowledge. This MSDS has been compiled and is exclusively for this product intended.

- **Reasons for alterations** This version replaces all old versions.

- **Relevant phrases**

H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Acute Tox. 4: Acute toxicity – Category 4

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Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1A: Skin sensitisation – Category 1A

Asp. Tox. 1: Aspiration hazard – Category 1

· \* **Data compared to the previous version altered.**

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