

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

1. Product identifier
- Trade name:  
CARDAMOME HE
  - CAS Number:  
8000-66-6
  - EC number:  
288-922-1
2. Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the preparation  
Aromatic ingredient(s). Industrial use only.
  - Uses advised against  
not applicable
3. Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
ROBERTET 37 avenue Sidi-Brahim  
BP 52100 F-06131 GRASSE CEDEX  
Tel: +33 (0)4 93 40 33 66 (during normal opening times 8h-18h)  
Fax: +33 (0)4 93 70 68 09  
legis@robertet.com
4. Emergency telephone number:
- ORFILA (INRS): + 33 (0)1 45 42 59 59 Poison Control and Toxicovigilance Centers ANGERS: 02 41 48 21 21  
BORDEAUX: 05 56 96 40 80 LILLE: 0800 59 59 59 LYON: 04 72 11 69 11 MARSEILLE: 04 91 75 25 25 NANCY: 03 83 22 50 50 PARIS: 01 40 05 48 48 STRASBOURG: 03 88 37 37 37, TOULOUSE: 05 61 77 74 47

**SECTION 02: Hazards identification**

1. Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



GHS02

Flam. Liq. 3 - H226 Flammable liquid and vapour.



GHS07

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.



GHS09

Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.

- Additional information:  
Full text of H statements: see section 16

2. Label elements
- Labelling according to Regulation (EC) No 1272/2008

- Hazard pictograms



GHS02



GHS07



GHS09

- Signal word

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Warning

- Hazard-determining components of labelling:  
Eucalyptol / Linalool / Linalyl acetate / d-limonene ((R)-p-mentha-1, 8-diène) / 2,6,6-Trimethylbicyclo[3.1.1]hept-2-ene / Geraniol
- Hazard statements  
H226 Flammable liquid and vapour.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.
- Precautionary statements  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.
- 3. Other hazards
  - Results of PBT and vPvB assessment
    - PBT:  
Not applicable.
    - vPvB:  
Not applicable.
  - Determination of endocrine-disrupting properties  
None of the ingredients is listed.

**SECTION 03: Composition/information on ingredients**

- Chemical characterization
- CAS Number: 8000-66-6
- EINECS Number: 288-922-1
- Dangerous components:
 

CAS Number		%
<b>470-82-6</b>	<b>Eucalyptol</b> EC number: 207-431-5 Flam. Liq. 3 - H226; Skin Sens. 1B - H317	<b>30,00- 40,00</b>
<b>78-70-6</b>	<b>Linalool</b> EC number: 201-134-4 Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	<b>5,00- 10,00</b>
<b>115-95-7</b>	<b>Linalyl acetate</b> EC number: 204-116-4 Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	<b>5,00- 10,00</b>
<b>5989-27-5</b>	<b>d-limonene ((R)-p-mentha-1,8-diène)</b> EC number: 227-813-5 Asp. Tox. 1 - H304; Flam. Liq. 3 - H226; Skin Irrit. 2 - H315, Skin Sens. 1B - H317; Aquatic Acute 1 - H400 (M=1); Aquatic Chronic 3 - H412	<b>1,00- 5,00</b>
<b>8000-41-7</b>	<b>Terpineol</b> EC number: 232-268-1	<b>1,00- 5,00</b>

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<b>123-35-3</b>	Skin Irrit. 2 - H315, Eye Irrit. 2 - H319 <b>Myrcene</b> EC number: 204-622-5 Asp. Tox. 1 - H304; Flam. Liq. 3 - H226; Skin Irrit. 2 - H315, Eye Irrit. 2 - H319; Aquatic Acute 1 - H400 (M=1), Aquatic Chronic 2 - H411	<b>1,00- 5,00</b>
<b>80-56-8</b>	<b>2,6,6-Trimethylbicyclo[3.1.1]hept-2-ene</b> EC number: 201-291-9 Asp. Tox. 1 - H304; Flam. Liq. 3 - H226; Acute Tox. 4 - H302, Skin Irrit. 2 - H315, Skin Sens. 1B - H317; Aquatic Acute 1 - H400 (M=1), Aquatic Chronic 1 - H410 (M=1) Oral: ATE = 500 mg/kg	<b>1,00- 5,00</b>
<b>106-24-1</b>	<b>Geraniol</b> EC number: 203-377-1 Eye Dam. 1 - H318; Skin Irrit. 2 - H315, Skin Sens. 1 - H317	<b>1,00- 5,00</b>
<b>105-87-3</b>	<b>Geranyl acetate</b> EC number: 203-341-5 Skin Irrit. 2 - H315, Skin Sens. 1B - H317; Aquatic Chronic 3 - H412	<b>1,00- 5,00</b>
<b>5392-40-5</b>	<b>Citral</b> EC number: 226-394-6 Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1 - H317	<b>1,00- 5,00</b>
<b>562-74-3</b>	<b>4-Terpinenol</b> EC number: 209-235-5 Acute Tox. 3 - H331; Acute Tox. 4 - H302, Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1 - H317, STOT SE 3 - H336 Oral: ATE = 1300 mg/kg; Inhalative: ATE = 3 mg/l	<b>1,00- 5,00</b>
<b>40716-66-3</b>	<b>Nerolidol (trans)</b> EC number: 255-053-4 Eye Irrit. 2 - H319, Skin Sens. 1B - H317; Aquatic Acute 1 - H400 (M=1), Aquatic Chronic 1 - H410 (M=1)	<b>0,10- 1,00</b>
<b>127-91-3</b>	<b>6,6-Dimethyl-2-methylenebicyclo[3.1.1]heptane</b> EC number: 204-872-5 Asp. Tox. 1 - H304; Flam. Liq. 3 - H226; Skin Irrit. 2 - H315, Skin Sens. 1B - H317; Aquatic Acute 1 - H400 (M=1), Aquatic Chronic 1 - H410 (M=1)	<b>0,10- 1,00</b>
<b>99-85-4</b>	<b>gamma-Terpinene</b>	<b>0,10- 1,00</b>

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	EC number: 202-794-6 Repr. 2 Flam. Liq. 3 - H226; Repr. 2 - H361; Aquatic Chronic 2 - H411	
<b>586-62-9</b>	<b>Terpinolene</b>	<b>0,10- 1,00</b>
	EC number: 209-578-0 Asp. Tox. 1 - H304; Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317; Aquatic Chronic 2 - H411	
<b>99-86-5</b>	<b>alpha-Terpinene</b>	<b>0,10- 1,00</b>
	EC number: 202-795-1 Asp. Tox. 1 - H304; Flam. Liq. 3 - H226; Acute Tox. 4 - H302, Eye Irrit. 2 - H319, Skin Sens. 1 - H317; Aquatic Chronic 2 - H411	
<b>4602-84-0</b>	<b>Farnesol</b>	<b>0,10- 1,00</b>
	EC number: 225-004-1 Skin Irrit. 2 - H315, Skin Sens. 1B - H317; Aquatic Acute 1 - H400 (M=1), Aquatic Chronic 1 - H410 (M=1)	
<b>99-87-6</b>	<b>p-Cymene</b>	<b>0,10- 1,00</b>
	EC number: 202-796-7 Repr. 2 Acute Tox. 3 - H331; Repr. 2 - H361f, Asp. Tox. 1 - H304; Flam. Liq. 3 - H226; Aquatic Chronic 2 - H411 Inhalative: ATE = 3 mg/l	

**SECTION 04: First aid measures**

1. Description of first aid measures
  - General information:  
Seek immediate medical advice.
  - After inhalation:  
Supply fresh air; consult doctor in case of complaints.
  - 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.
2. Most important symptoms and effects, both acute and delayed  
No further relevant information available.
3. Indication of any immediate medical attention and special treatment needed  
No further relevant information available.

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#### SECTION 05: Firefighting measures

1. 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:  
Non applicable
2. Special hazards arising from the substance or mixture  
No further relevant information available.
3. Advice for firefighters  
No specific advice

#### SECTION 06: Accidental release measures

1. Personal precautions, protective equipment and emergency procedures
  - For non-emergency personnel  
Wear protective equipment. Keep unprotected persons away.
  - For emergency responders  
Wear protective equipment. Keep unprotected persons away.
2. Environmental precautions:  
Do not allow to enter sewers/ surface or ground water.
3. 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.  
Ensure adequate ventilation.
4. Reference to other sections  
See Section 13 for disposal information.

#### SECTION 07: Handling and storage

1. Precautions for safe handling  
Avoid contact with skin and eyes Wear appropriate protective equipments (gloves, glasses ...)
- Information about fire - and explosion protection:  
Keep ignition sources away - Do not smoke.
2. Conditions for safe storage, including any incompatibilities
  - Requirements to be met by storerooms and receptacles:  
Avoid exposure to extreme temperatures. Avoid prolonged contact with certain plastic materials (PVC..)
  - 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.
3. Specific end use(s)  
No further relevant information available.

#### SECTION 08: Exposure controls/personal protection

1. Control parameters
  - Ingredients with limit values that require monitoring at the workplace:  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - Ingredients with biological limit values:  
No further relevant information available.
2. Exposure controls

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- Appropriate engineering controls  
No further data; see item 7.
- Individual protection measures, such as personal protective equipment
  - General protective and hygienic measures:  
Avoid contact with the eyes and skin.
  - Eye/face protection  
Safety glasses
  - Skin protection
    - Protection of hands:  
Only use chemical-protective gloves with CE-labelling of category III.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
    - Material of gloves
      - 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.
    - Respiratory protection:  
Not required.
  - Thermal hazards  
No further relevant information available.
- Environmental exposure controls  
No further relevant information available.

**SECTION 09: Physical and chemical properties**

**Information on basic physical and chemical properties**

**General Information**

<b>Physical state</b>	Fluid
<b>Form:</b>	Fluid
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Characteristic
<b>Melting point/freezing point:</b>	Undetermined.
<b>Boiling point or initial boiling point and boiling range</b>	> 35 °C
<b>Flammability</b>	Not applicable.
<b>Lower and upper explosion limit</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Flash point:</b>	59 °C
<b>Auto-ignition temperature:</b>	Not determined.
<b>Ignition temperature:</b>	Undetermined.
<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>	Not determined.
<b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
<b>Vapour pressure:</b>	Not determined.
<b>Density and/or relative density</b>	
<b>Density:</b>	Not determined.
<b>Relative density</b>	0,9190 - 0,9360 (20°C)
<b>Vapour density</b>	Not determined.
<b>Particle characteristics</b>	Not determined.
<b>Other information</b>	No further relevant information available.

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<b>Surface tension:</b>	Not determined.
<b>Explosive properties:</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>	Flammable liquid and vapour.
<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
<b>Other safety characteristics</b>	Not determined.
<b>Evaporation rate</b>	Not determined.

**SECTION 10: Stability and reactivity**

1. Reactivity  
No further relevant information available.
2. Chemical stability  
Good stability at conditions of use mentioned in point 7 and 10
3. Possibility of hazardous reactions  
Reacts with strong oxidising agents.
4. Conditions to avoid  
Avoid temperatures near the flash point (see Section 9). Avoid contact with oxidizing agents.
5. Incompatible materials:  
No further relevant information available.
6. Hazardous decomposition products:  
No dangerous decomposition products known.

**SECTION 11: Toxicological information**

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

- Acute toxicity  
Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

**CARDAMOME HE**

Oral, LD50: 19403,16 mg/kg  
Inhalative, LC50/4h: 157,89 mg/l

- Skin corrosion / irritation  
Causes skin irritation.

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- **Serious eye damage / irritation**  
Causes serious eye irritation.
- **Respiratory / skin sensitization**  
May cause an allergic skin reaction.
- **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**  
Based on available data, the classification criteria are not met.

**2. Information on other hazards**

- **Endocrine disrupting properties**  
None of the ingredients is listed.
- **Other information**  
No further relevant information available.

**SECTION 12: Ecological information**
**1. Toxicity**

- **Aquatic toxicity:**  
Based on available data, the classification criteria are not met.

**2. Persistence and degradability**

Toxic to aquatic life with long lasting effects.

**3. Bioaccumulative potential**

Not available

**4. Mobility in soil**

Not available

**5. Results of PBT and vPvB assessment**

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

**6. Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

**7. Other adverse effects**

No further relevant information available.

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**SECTION 13: Disposal considerations**


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**


1. UN number or ID number
  - .ADR UN1197
  - .IMDG UN1197
  - .IATA UN1197
2. UN proper shipping name
  - .ADR 1197 EXTRACTS, LIQUID
  - .IMDG EXTRACTS, LIQUID (DIPENTENE MIXTURE)
  - .IATA EXTRACTS, LIQUID
3. Transport hazard class(es)
  - .ADR 3 (F1) Flammable liquids.
  - .Class 3 (F1) Flammable liquids.
  - .Label
 


3





  - .IMDG 3 Flammable liquids.
  - .Class 3 Flammable liquids.
  - .Label
 

3




  - .IATA 3 Flammable liquids.
  - .Class 3 Flammable liquids.
  - .Label
 

3


4. Packing group
  - .ADR III
  - .IMDG III
  - .IATA III
5. Environmental hazards:
  - .Marine pollutant: Yes
  - .Danger code (Kemler): 30

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## SAFETY DATA SHEET

According to 1907/2006/EC, Article 31, Latest Amendment

Version number: 12.0 (replaces version: 11.0)

Revision: 06.05.2024

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**PRODUCT : CARDAMOME HE***(continued of page 9)*

- . EMS Number:** F-E,S-D
6. Special precautions for user  
Warning: Flammable liquids.
7. Maritime transport in bulk according to IMO instruments  
Not applicable.
- Transport/Additional information:
    - .ADR**
    - . Excepted quantities (EQ):** E1
    - . Limited quantities (LQ)** 5L
    - . Transport category** 3
    - . Tunnel restriction code** D/E
    - . IMDG**
    - . Limited quantities (LQ)** 5L
    - . Excepted quantities (EQ)** E1
  - UN "Model Regulation":  
UN 1197 EXTRACTS, LIQUID, 3, III, ENVIRONMENTALLY HAZARDOUS

**SECTION 15: Regulatory information**

1. Safety, health and environmental regulations/legislation specific for the substance or mixture
  - REGULATION (EC) No 1907/2006 ANNEX XVII  
Conditions of restriction: 3
  - DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II  
None of the ingredients is listed.
  - REGULATION (EU) 2019/1148
  - Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))  
None of the ingredients is listed.
  - Annex II - REPORTABLE EXPLOSIVES PRECURSORS  
None of the ingredients is listed.
  - Regulation (EC) No 273/2004 on drug precursors  
None of the ingredients is listed.
  - Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors  
None of the ingredients is listed.
- National regulations:
- Waterhazard class:  
Water hazard class 3 (Self-assessment): extremely hazardous for water.
2. Chemical safety assessment:  
A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

1. Relevant phrases
 

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.

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Version number: 12.0 (replaces version: 11.0)

Revision: 06.05.2024

Printing date: 10.06.2024

**PRODUCT : CARDAMOME HE**
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H361f	Suspected of damaging fertility.
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.

**2. Department issuing MSDS:**

Legislation / Regulatory Affair Department

**3. Abbreviations and acronyms:**

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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

**4. Sources**

RIFM Database

Suppliers Information

REACH registration dossier

IFRA/IOFI Labelling Manual

## • Date of previous version:

\* 04.05.2024

## • Version number of previous version:

\* 11.0

\* Data compared to the previous version altered.