



## Material Safety Data Sheet

According to EU Regulation 1907/2006 in the current version

Edition 31.07.2014

### CARDAMOM ESSENTIAL OIL

#### 1. Identification of the substance/preparation and the company

Trade name: Cardamom essential oil, 100% pure and natural  
Essential oil obtained by steam distillation of the fruits of Cardamom (Zingiberaceae)  
Elettaria cardamomum (L.) Maton

Utilisation: Raw material for perfume, aromatherapy, cosmetics

Supplier company: **Elemental SRL**, Piata Cazarmii no.15, 410188-Oradea, jud.Bihor, Romania

identification: Tel/Fax: +40259-436.755, www.elemental.eu

Emergency: RO: numar national pentru cazuri de urgenta: 021 3183606 Institutul de Sanatate Publica Bucuresti. International emergency number: +49 180 2273-112

#### 2. Hazards Identification

EC Dir. : Irritating, flammable and dangerous for the environment.

Xi(Irritating), N(Dangerous for the environment),R10(Flammable), R43(May cause sensitisation by skin contact ), R51/53(Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment ), S24(Avoid contact with skin.), S37(Wear suitable gloves.), S61(Avoid release to the environment. Refer to special instructions / safety data sheets.)

CLP/GHS : FL 3, SCI 2, EDI 2A, SS 1, EH A2,C2

SGH02, SGH07, SGH09, H226(Flammable liquid and vapour), H319(Causes serious eye irritation), H411(Toxic to aquatic life with long lasting effects), H315(Causes skin irritation), H317(May cause an allergic skin reaction), P262(Do not get in eyes, on skin, or on clothing), P280(Wear protective gloves/protective clothing/eye protection/face protection), P273(Avoid release to the environment)

Warning



#### 3. Composition / Information on ingredients

INCI NAME : ELETTARIA CARDAMUM OIL

CAS TSCA: 8000-66-6, CAS EINECS: 85940-32-5, FEMA: 2241, EINECS: 288-922-1

Composition:

Citral		N°CAS : 5392-40-5	N°CE : 226-394-6	<= 0.6%
Xi	R38/43			
SGH07	H227-303-313-315-317-319-401		ATO 5(4950); ATD 5(2250); SCI 2; SS 1; EH A2; EDI 2A; FL 4	
alpha-Terpineol		N°CAS : 98-55-5	N°CE : 202-680-6	<= 2.5%
Xi	R36/38			
SGH07	H227-303-315-319-401		AT05(4300), SCI2, EDI2A, FL 4, EH A2	
Limonene		N°CAS : 138-86-3	N°CE : 205-341-0	<= 3.0%
Xi,N	R10-38-43-50/53			
SGH07, SGH08, SGH09, SGH02	H304, 315, 317, 410, 226		AH 1, SCI 2, SS 1B, EH A1,C1, FL 3	
Linalool		N°CAS : 78-70-6	N°CE : 201-134-4	<= 6.0%
Xi	R38			
SGH07	H227-303-315-319-402		ATO 5 (2780), SCI 2, EH A3, EDI 2A, FL 4	
alpha-Pinene		N°CAS : 80-56-8	N°CE : 201-291-9	<= 2.0%
Xn	R(10)-38-43-65			
SGH02, SGH07, SGH08	H226-303-304-315-317		FL 3, ATO 5(3700), SCI 2, SS 1B, AH 1	



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beta-Pinene		N°CAS : 127-91-3	N°CE : 204-872-5	<= 1.0%
Xn	R(10)-38-43-65			
SGH02, SGH07, SGH08	H226-304-315-317		FL 3, SCI 2, SS 1B, AH 1	
Farnesol		N°CAS : 4602-84-0	N°CE : 225-004-1	<= 0.2%
Xi	R36/38-43			
SGH08	H315, 319, 317		SCI 2; EDI 2A, SS 1	
Geraniol		N°CAS : 106-24-1	N°CE : 203-377-1	<= 1.5%
Xi	R38-41-43			
SGH05, SGH07	H303-315-317-318-401		ATO 5(4200); SCI 2; EDI 1; SS 1; EH A2	
Nerolidol		N°CAS : 7212-44-4	N°CE : 230-597-5	<= 1.0%
N	R50/53			
SGH09	H316, 410		ATO, ATD NC; ATI ND; SCI 3; EH A1,C1	
Linalyl acetate		N°CAS : 115-95-7	N°CE : 204-116-4	<= 6.0%
Xi	R38			
SGH07	H227-315-319-402		FL 4, EDI 2A, SCI 2, EH A3	
Terpinyl acetate		N°CAS : 8007-35-0	N°CE : 232-357-5	<= 45.0%
N	R51/53			
SGH09	H316, 411		SCI 3, EH A2,C2	

#### 4. First Aid

Inhalation : Remove affected person to fresh air. In case of breathing difficulty, seek medical advice

Eye contact : Flush with plenty of water for at least 15 min. Seek medical advice if symptoms persist

Skin contact : Remove contaminated clothing. Rinse affected area with plenty of water. Contact a physician if symptoms persist.

Ingestion : Rinse mouth out with water and seek medical advice immediately. Do not induce vomiting.

#### 5. Fire-fighting Measures

##### 5.1 Extinguishing media

Recommended : foam, dry powder, carbon dioxide (CO<sub>2</sub>). Inadvisable : avoid full water jet.

##### 5.2 Special hazards

In case of fire, toxic fumes like carbon monoxide and carbon dioxide may be liberated. Burning produces heavy smoke, do not inhale fumes.

##### 5.3 Particular protective measures

Particular protective measures when fire-fighting: The pressure in the closed containers may increase with high temperature. Cool the endangered drums by water spraying or by an appropriate produce if water is not authorized.

##### 5.4 Advice for firefighters

Move undamaged containers from immediate hazard area if it can be done safely. Use suitable breathing apparatus. Regard to self protection.

#### 6. Accidental release measures:

6.1 Individual precautions: Remove all sources of ignition (Avoid all flammable sources. Do not smoke.) Provide adequate ventilation. Give a warning to people in the hazardous area. Wear personal protection equipment. Avoid contact with skin, eyes, and clothing.

6.2 Precautions for environmental conservation



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Stop the substance to enter into drains and groundwater. Prevent spreading over a wide area.

#### 6.3 Cleaning methods

Limit the dispersion of the product. Absorb the liquid with an inert absorbent, such as oil or sand. Wash with a grease extractor. Get rid of the duster and sponges used, according to local regulations.

## 7. Handling and Storage

### 7.1 Handling

Handle with care. Keep the product away from heat and light. Remove all sources of ignition. Do not eat, drink, or smoke when handling the product. Do not ingest the product. Wear personal protective clothing. Use only in well-ventilated areas.

### 7.2 Storage

Fit quantities according to container volume, avoid too important empty spaces. It is recommended to stock the product in its original packaging, tightly closed, sheltered from heat sources, air and light. Avoid important temperature variation. Keep in temperate and well-ventilated area. Respect the usual hygiene rules.

7.3 Specific end use(s): No data available (confer to above recommendations)

## 8. Exposure Controls and Personal Protection

### 8.1 Control parameters

No data available.



### 8.2 Exposure controls

Use in well ventilated areas. Follow usual hygiene rules. Wash hands after handling the product. Keep away from food and beverages. Provide accessible fire-extinguisher.

Respiratory protection: Generally unnecessary in a well-ventillated area. If ventilation is insufficient, respiratory protection must be worn. For pulverulent products, the wearing of a mask is recommended.

Hand protection: The wearing of chemical solvent and acid resistant gloves is necessary. (according to EN374 regulation).

Eye protection: The wearing of adequate safety glasses is advised. Prescription glasses do not qualify as safety glasses.

Contact lenses users should wear prescription and safety glasses while using the product.

Skin protection: Wear personal safety equipment. Handle the product with care, avoiding skin contact.

## 9. Physical and Chemical Properties

Appearance : Mobile liquid at room temperature

Colour : Nearly colourless to pale yellow

Odour : Heady, cineol note, spicy

Flash point in °C (closed cup) : +59°

Specific gravity at 20°C : 0.920 to 0.940

Refractive index at 20°C : 1.460 to 1.467

Optical rotation at 20°C : +24° to +39°

Solubility : Soluble in 3 parts max 70% ethyl alcohol

Main components: Alpha-terpinyl acetate, cineole-1,8, linalyl acetate

## 10. Stability and Reactivity

10.1 Condition to avoid: Excessive heat, open flames or other sources of ignotion. This product is stable at room temperature. Temperatures above room temperature will allow the transfer from liquid to vapour phase and the formation of explosive atmosphere.

10.2 Material to avoid or incompatible: strong acids, alkali or oxidizing agents



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**CARDAMOM ESSENTIAL OIL****10.3 Dangerous decomposition products**

No dangerous decomposition product known, if used according to specifications.

**11. Toxicological Information**

Effect by ingestion: LD50 for the rat > 5000 mg/kg (source RIFM)

Effect by skin contact: LD50 for the rabbit > 5000 mg/kg (source RIFM)

Residual solvent(s) : not applicable

Cosmetics Allergens (1223/2009/EEC) : see section 16

IFRA restrictions : Cardamom essential oil is not explicitly regulated by IFRA. It contains maximum 0.6% citral, 1.5% geraniol, 0.2% farnesol, 0.1% isoeugenol, 0.1% citronellol, 0.1% carvone, 0.1% benzaldehyde classified "R", 6% linalool, 3% limonene classified "S" and toluene 0.01% classified "P".

**12. Ecological Information**

Avoid any pollution of soil, ground and surface waters. Biodegradability not determined.

12.1 Toxicity: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2 Mobility: No data available.

12.3 Persistence et degradability: No data available.

12.4 Bio-accumulative potential: No data available.

12.5 PBT evaluation results: No data available.

12.6 Other adverse effects: No data available.

**13. Disposal Considerations**

In accordance with local environmental laws. Avoid disposing into drainage systems and into the environment.

**14. Transport Information**

Customs code : 33012941

Transport : UN 1169 Extracts, aromatic, liquid, 3, III

**15. Additional Regulatory Information**

Regulations specific for the substance or mixture: not available data

Chemical safety assessment: not available data

**16. Other Information**

Abbreviations:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

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

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IATA: International Air Transport Association.

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

ICAO: International Civil Aviation Organization.

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



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IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

LTE: Long-term exposure.

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STE: Short-term exposure.

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

#### DECLARATION OF ALLERGENS

7th Amendment to Directive 76/768/EC, annex III, part I (2003/15/EC)

INCI Name	CAS No	Typical Contents in %
2-(TERT-BUTYL PROPIONALDE) (Lilial)	80-54-6	0
3-METHYL-4-(2,6,6 TRIMETHYL-2-CYCLOHEXINE-1-YL)-3-BUTEN-2-ONE	127-51-5	0
AMYL CINNAMAL	122-40-7	0
AMYL CINNAMYL ALCOHOL	101-85-9	0
ANISYL ALCOHOL (Anise alcohol)	105-13-5	0
BENZYL ALCOHOL	100-51-6	0
BENZYL BENZOATE	120-51-4	0
BENZYL CINNAMATE	103-41-3	0
BENZYL SALICYLATE	118-58-1	0
CINNAMAL (Cinnamic Aldehyde)	104-55-2	0
CINNAMYL ALCOHOL	104-51-6	0
CITRAL	5392-40-5	<= 0.6000
CITRONELLOL	106-22-9	<= 0.1000
COUMARIN	91-64-5	0
LIMONENE	5989-27-5	<= 3.000
EUGENOL	97-53-0	0
FARNESOL	4602-84-0	<= 0.2000
GERANIOL	106-24-1	<= 1.5000
HEXYL CINNAMIC ALDEHYDE (Hexyl Cinnamal)	101-86-0	0
HYDROXYCITRONELLAL	107-75-5	0
HYDROXYMETHYL PENTYL CYCLOHEXENE CARBOXALDEHYDE (Lyrall)	31906-04-4	0
ISO EUGENOL	97-54-1	<= 0.1000
LINALOOL	78-70-6	<= 6.000
METHYL HEPTINE CARBONATE	111-12-6	0
OAK MOSS EXTRACT (Evernia Prunastri)	90028-68-5	0
TREE MOSS EXTRACT (Evernia Furfuracea)	90028-67-4	0

#### Disclaimer:

This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.