

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Code 00020451
Product Name Cardamom Guatemala EO

CAS No 8000-66-6

Recommended use of the chemical and restrictions on use

Recommended use Aromatic Ingredient(s). For Industrial Use Only.
Restrictions on use Do not ingest as such. Avoid eye contact.

Details of the supplier of the safety data sheet

Supplier

Robertet, Inc.
 400 International Drive
 Mount Olive, NJ 07828 USA
 TEL: 201-337-7100
 E-mail: reginc@robertetusa.com

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300 (24 hrs)
 Outside of the USA and Canada (703) 527-3887. Collect calls accepted

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Reproductive toxicity	Category 2
Flammable liquids	Category 3

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word

Warning

Hazard statements

Causes skin irritation
 Causes serious eye irritation
 May cause an allergic skin reaction
 Suspected of damaging fertility or the unborn child
 Flammable liquid and vapor



Appearance Colorless to pale yellow **Physical state** Liquid **Odor** Characteristic

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection
 Wash face, hands and any exposed skin thoroughly after handling
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing must not be allowed out of the workplace
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ ventilating / lighting/equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Specific treatment (see supplemental first aid instructions on this label)
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 If skin irritation or rash occurs: Get medical advice/attention
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
 Wash contaminated clothing before reuse
 In case of fire: Use CO₂, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

May be harmful if swallowed. Toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%	GHS Classification
Eucalyptol	470-82-6	30 - 40	Flam. Liq. 3 (H226) Acute Tox. Oral 5 (H303) Skin Sens. 1B (H317) Aquatic Acute 3 (H402)
Linalyl acetate	115-95-7	5.0 - 10	Flam. Liq. 4 (H227) Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Eye Irrit. 2B (H320) Aquatic Acute 3 (H402)
Linalool	78-70-6	5.0 - 10	Flam. Liq. 4 (H227) Acute Tox. Oral 5 (H303) Skin Irrit. 2 (H315)

			Skin Sens. 1B (H317) Eye Irrit. 2A (H319) Aquatic Acute 3 (H402)
Limonene	5989-27-5	1.0 - 5.0	Flam. Liq. 3 (H226) Asp Tox. 1 (H304) Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)
Terpineol	8000-41-7	1.0 - 5.0	Flam. Liq. 4 (H227) Acute Tox. Oral 5 (H303) Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Aquatic Acute 3 (H402)
beta-Myrcene	123-35-3	1.0 - 5.0	Flam. Liq. 3 (H226) Asp Tox. 1 (H304) Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)
alpha-Pinene	80-56-8	1.0 - 5.0	Flam. Liq. 3 (H226) Acute Tox. Oral 4 (H302) Asp Tox. 1 (H304) Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Geraniol	106-24-1	1.0 - 5.0	Acute Tox. Oral 5 (H303) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Eye Dam. 1 (H318) Aquatic Acute 3 (H402)
Geranyl acetate	105-87-3	1.0 - 5.0	Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)
Citral	5392-40-5	1.0 - 5.0	Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Eye Irrit. 2A (H319) Aquatic Acute 2 (H401)
4-Carvomenthenol	562-74-3	1.0 - 5.0	Flam. Liq. 4 (H227) Acute Tox. Oral 4 (H302) Acute Tox. Inhalation - vapor 4 (H332) Acute Tox. Dermal 5 (H313) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Eye Irrit. 2B (H320) STOT SE 3 (H336) Aquatic Acute 2 (H401)
trans-Nerolidol	40716-66-3	0.1 - 1.0	Skin Sens. 1B (H317) Eye Irrit. 2B (H320) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
beta-Pinene	127-91-3	0.1 - 1.0	Flam. Liq. 3 (H226) Asp Tox. 1 (H304) Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
TERPINENE GAMMA + ALPHA	99-85-4	0.1 - 1.0	Flam. Liq. 3 (H226) Acute Tox. Oral 5 (H303)

			Repr. 2 (H361) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)
Terpinolene	586-62-9	0.1 - 1.0	Flam. Liq. 4 (H227) Acute Tox. Oral 5 (H303) Asp Tox. 1 (H304) Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Eye Irrit. 2B (H320) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)
p-Mentha-1,3-diene	99-86-5	0.1 - 1.0	Flam. Liq. 3 (H226) Acute Tox. Oral 4 (H302) Asp Tox. 1 (H304) Skin Irrit. 3 (H316) Skin Sens. 1 (H317) Eye Irrit. 2A (H319) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)
Farnesol	4602-84-0	0.1 - 1.0	Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
p-Cymene	99-87-6	0.1 - 1.0	Flam. Liq. 3 (H226) Acute Tox. Oral 5 (H303) Asp Tox. 1 (H304) Acute Tox. Inhalation 3 (H331) Repr. 2 (H361) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.
Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Product is or contains a sensitizer. May cause sensitization by skin contact.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat,

hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Remove contaminated clothing and shoes.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
alpha-Pinene 80-56-8	TWA: 20 ppm dermal sensitizer	-	-
Citral 5392-40-5	TWA: 5 ppm inhalable fraction and vapor Sk* dermal sensitizer	-	-
beta-Pinene 127-91-3	TWA: 20 ppm dermal sensitizer	-	-

Appropriate engineering controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Hand protection

Wear suitable gloves. Impervious gloves.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colorless to pale yellow
Odor	Characteristic
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		No information available
Melting point / freezing point		No information available
Boiling point / boiling range	> 35 °C	No information available
Flash point	59 °C / 138 °F	CC (closed cup)
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Vapor Pressure (mm Hg @ 20°C):		No information available
Vapor density		No information available
Relative density		No information available
Specific Gravity @ 20/20 °C	0.9190-0.9360	RTM-101
Solubility(ies)		
Water solubility		No information available
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity		No information available
<u>Other information</u>		
Explosive properties	No information available	
Oxidizing properties	No information available	

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.
Hazardous decomposition products	None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is

not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes skin irritation.

Ingestion

Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

Acute toxicity**Numerical measures of toxicity**

ATEmix (oral)	4,420.10 mg/kg
ATEmix (dermal)	> 5000 mg/kg
ATEmix (inhalation-gas)	> 5000 ppm
ATEmix (inhalation-dust/mist)	100.00 mg/l
ATEmix (inhalation-vapor)	> 5000 mg/l

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No information available.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen

Chemical name	ACGIH	IARC	NTP
beta-Myrcene 123-35-3		Group 2B	

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

Persistence and degradability

No information available.

Bioaccumulation

There is no data for this product.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Waste from residues/unused Should not be released into the environment. Dispose of in accordance with local

products	regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

14. TRANSPORT INFORMATION

DOT Not regulated

IATA/ICAO

UN/ID no	1197
Proper shipping name	Extracts, liquid
Hazard class	3
Packing group	III

IMDG/IMO

UN number	1197
UN proper shipping name	Extracts, liquid
Transport hazard class(es)	3
Packing group	III
EmS-No	F-E, S-D

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

16. OTHER INFORMATION

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet