No. 2-C. Muhavoor Road, SEITHUR, RAJAPALAYAM - 626 121, TAMILNADU, INDIA

Tel: +91-4563-244154, 244327, Fax: +91-4563-245855 Email: r.velusami@venuss.co.in Web: www.venuss.co.in



Technical Data Sheet

Product Name Cardamom Oil :

Our Product Number CAD 5000 :

Country of Gathering India

Country of Manufacturing India :

Colour and Appearance Clear, pale yellow liquid :

Odour Characteristics odour of Cardamom Seed, :

spicy and camphorous

Botanical Name Elletaria Cardamom L. Maton :

Botanical Family : Zingiberaceae

Preparation Essential Oil of *Elletaria Cardamom L*. :

> Maton (Zingiberaceae) obtained by steam distillation of dried and crushed cardamom fruit. No chemical process is involved.

Solubility 1 volume of cardamom oil shall not :

require more than 6 volumes of 70% ethanol

to give hazy solution

Refractive Index at 25°C 1.462 - 1.476:

Optical Rotation at 25°C : $+22^{\circ}$ to $+44^{\circ}$

Specific Gravity at 25°C 0.917 - 0.947

Acid Value (as mg KOH/g Oil) \leq 7.0

Ester Value (as mg KOH/g Oil) 92-150

Flash Point 56.67 °C (134.01 °F) - Closed Cup :

188 °C **Boiling Point**

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Registry Numbers:

| CAS | EINECS | FEMA | FDA |
|-----------|-----------|------|----------------------|
| 8000-66-6 | 288-922-1 | 2241 | 21 CFR 182.10,582.20 |

Chromatographic Profile of Cardamom Oil (GC/GC-MS):

| Components | CAS | Odour | Min % | Max % |
|--------------------|------------|--|-------|-------|
| Sabinene | 3387-41-5 | Woody terpene citrus, pine spice | 2.00 | 6.00 |
| 1,8-Cineole | 470-82-6 | Eucalyptus herbal camphor medicinal | 30.00 | 40.0 |
| Linalool | 78-70-6 | Citrus floral sweet bois de rose woody green blueberry | 1.00 | 2.00 |
| Terpineol-4 | 562-74-3 | Pepper woody earth musty sweet | 1.00 | 6.00 |
| Z-citral | 5392-40-5 | Sharp lemon sweet | 0.10 | 1.00 |
| Nerol | 106-25-2 | Sweet natural neroli citrus magnolia | 1.00 | 5.00 |
| α-Terpinyl acetate | 80-26-2 | Sweet, herbaceous floral with lavender nuances | 30.00 | 45.00 |
| β-Selinene | 17066-67-0 | Herbal | 1.00 | 3.00 |
| Nerolidol | 7212-44-4 | Floral green waxy citrus woody | 1.00 | 3.00 |

These being 100% natural and pure products, the percentage number of above components are subject to changes.

Crop Harvesting Season:

August to January

Certification:

Hindu, Halal, Kosher (Pareve/Passover)

Classification:

Natural and Food Grade

Tenacity on a Smelling Strip:

2 days

Additive and Colour:

Not added

Genetically Modified Organisms:

To the best of our knowledge, this product is not manufactured from genetically modified organisms or their derivatives.

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Allergens Declaration:

To the best of our knowledge, this product does not contain nor is derived from any food allergens, including Cereals containing gluten, Crustaceans, Egg, Fish, Peanuts, Soybean, Milk, Buck Wheat, Celery, Mustard, Sesame Seeds, Sulfur dioxide and Sulfites Mollusks, Lupine, Tree nuts

Spongiform Encephalopathy or Transmissible Spongiform Encephalopathy Declaration:

To the best of our knowledge, this product is not produced from bovine or caprine sources or raw materials and does not contain any bovine spongiform encephalopathy or transmissible spongiform encephalopathy.

Other Declaration:

This product has not been (a) Exposed to Ionizing Radiation,(b) Derived from Sewage Sludge, and (c) Treated with Ethyl Oxide

Heavy Metals:

Tested for Lead (Pb), Copper(Cu), Arsenic(As), Tin(Sn), Cadmium(Cd), Mercury(Hg), Nickel(Ni), Iron(Fe), Calcium(Ca), Sodium(Na), Potassium(K), Antimony(Sb), Barium(Ba).

Pesticides Residue:

Organo Chlorine:

Tested for Aldrin, α –HCH, β –HCH, Trans- Chlordane, Cis-Chlordane, δ –HCH, Lindane, Dicofol, Dieldrin, α –Endosulfan, β –Endosulfan, Endosulfansulphate, Endrin, Heptachlor, Hexachlorobenzene.

Organo Phosphorus:

Tested for Chlorfenvinphos, Chlorpyrifos, Chlorpyrifos – methyl, Diazinon, Dichlorvos, Dimethoate, Ethion, Fenthion, Formothion, Malathion, Malaoxon, Monocrotophos, Parathion.

Toxins & Contaminants:

Tested for Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2, Aflatoxin M1, Ochratoxin A, Benzo(a)Pyrene, Benzo(a)Anthracene.

Phthalate:

Tested for Benzyl Butyl Phthalate, Bis(2-ethylhexyl) Adipate, Bis(2-ethylhexyl) Phthalate, Dibutyl Phthalate, Diethyl Phthalate, Dimethyl Phthalate, Di-n-octyl phthalate will be below detection range

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Microbiology:

Tested for Yeast & Mould, E.Coli, Coliforms, Staphylococcus Aureus, Salmonella Sp., Clostridium Perfringens, Bacillus Cereus, Listeria Monocytogenes, Pseudomonas Aeruginosa

Residual Solvent:

Tested for Tetrahydrofuran , 1,4-Dioxane , Trichloro ethylene , Hexanal , Xylene ,Orthoxylene , Meta & Para-Xylene , Methanol , Acetone , Dichloromethane ,Hexane , Ethyl acetate , Chloroform , Cyclohexane , Benzene , Toluene ,2-Propanol , 1,2-Dichloroehtane Methyl ethyl ketone , Butanol , Ethanol.

Nutrition Value:

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Dietary Preferences & Restrictions Declaration:

Suitable for Vegans, Lacto-Vegetarians, Ovo-Vegetarians, Vegetarians.

Animal Testing Statement:

This product is not tested on any animal

Stability and Application:

Primarily used for seasoning foods, baked goods, frozen dairy, hard and soft candy, meat products, alcoholic beverages, nonalcoholic beverages and in small dosages in perfumery. Individual consumption 0.0046 mg/kg/day.

Storage Conditions:

The oil is affected by light. Keep away from heat, sparks, open flames and hot surfaces, Use only non-sparking tools. Take precautionary measures against static discharge. Store at 18°C in well closed in air tight containers.

Product Packaging:

Aluminum Bottle with Narrow Neck: 0.25 Kg, 0.5 Kgs, 1 Kg, 2 Kgs, 5 Kgs, 10 Kgs, 25 Kgs

Outer Packing:

Bubble Sheet, 20 mm Thickness Thermcool Sheet and 11 Ply Corrugated Plain Boxes are used for packing Aluminum Bottles

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Raw Material Image:



Product Image:



Images of Inner and Outer Packing:



TDS Approved By Dr RV Rajagopalan Manager (QA)

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