



## CERTIFICATE of ANALYSIS (COA)

|                    |                                  |
|--------------------|----------------------------------|
| COMMON NAME        | Cardamom - Organic               |
| LATIN NAME         | <i>Elettaria cardamomum</i>      |
| COUNTRY OF ORIGIN  | Guatemala                        |
| CULTIVATION METHOD | Certified Organic (USDA, NOP)    |
| TYPE               | Essential Oil                    |
| EXTRACTION METHOD  | Steam Distilled                  |
| PLANT PART         | Whole Fruit                      |
| USE                | Aromatherapy, Natural Perfumery. |

|                    |               |
|--------------------|---------------|
| SKU                | 144           |
| LOT #              | 16            |
| MANUFACTURING DATE | December 2021 |
| BEST BY DATE       | December 2024 |

|                        |                               |        |
|------------------------|-------------------------------|--------|
|                        | <b>SPECIFICATIONS (Range)</b> |        |
| SPECIFIC GRAVITY @20°C | 0.918 – 0.940                 | 0.9182 |
| REFRACTIVE INDEX @20°C | 1.450 – 1.470                 | 1.4634 |
| OPTICAL ROTATION @20°C | +22° to +41°                  | na     |

|                          |                                            |          |
|--------------------------|--------------------------------------------|----------|
| PHYSICAL APPEARANCE      | Transparent liquid                         | Conforms |
| COLOR                    | Colorless to pale yellow                   | Conforms |
| ODOR                     | Fresh, spicy, with sweet woody undertones. | Conforms |
| SOLUBILITY               | Soluble in alcohol and fixed oils          |          |
| SPECIAL USE INSTRUCTIONS | Dilute before use                          |          |

| COMPONENTS                   | RANGE % | %     | COMPONENTS                   | RANGE % | %    |
|------------------------------|---------|-------|------------------------------|---------|------|
| TERPENYL ACETATE             | 35-45   | 36.49 | CIS-THUYANOL                 | na      | 0.31 |
| 1,8-CINEOLE                  | 27-35   | 30.94 | 1-OCTANOL                    | na      | 0.05 |
| SABINENE                     | na      | 5.47  | TERPINENE-4-OL               | na      | 0.89 |
| LINALYL ACETATE              | na      | 5.00  | DELTA-TERPENYL ACETATE       | na      | 0.14 |
| LINALOOL *                   | na      | 3.31  | DELTA-TERPINEOL              | na      | 0.11 |
| LIMONENE *                   | na      | 2.82  | NERAL                        | na      | 0.38 |
| BETA-MYRCENE <sup>65</sup>   | na      | 2.76  | GERMACRENE D + SESQUITERPENE | na      | 0.09 |
| ALPHA-PINENE + ALPHA-THUYENE | na      | 2.28  | GERANIAL *                   | na      | 0.65 |
| ALPHA-TERPINEOL              | na      | 1.66  | BETA-SELINENE                | na      | 0.18 |
| ALPHA-TERPINENE              | na      | 0.16  | ALPHA-SELINENE               | na      | 0.10 |
| BETA-PINENE                  | na      | 0.49  | GERANYL ACETATE              | na      | 0.51 |
| GAMMA-TERPINENE              | na      | 0.32  | TERPENYL PROPIONATE          | na      | 0.09 |
| TRANS-BETA-OCIMENE           | na      | 0.08  | GAMMA-CADINENE               | na      | 0.09 |
| P-CYMENE                     | na      | 0.12  | GERANYL PROPIONATE           | na      | 0.08 |
| TERPINOLENE                  | na      | 0.12  | GERANIOL *                   | na      | 0.95 |
| OCTANAL                      | na      | 0.17  | NEROLIDOL                    | na      | 0.89 |

|                                      |    |      |  |               |    |      |
|--------------------------------------|----|------|--|---------------|----|------|
| 1,3,7-NONATRIENE, 4,8-DIMETHYL-      | na | 0.08 |  | FARNESAL      | na | 0.06 |
| TRANS-THUYANOL                       | na | 0.51 |  | FARNESOL *    | na | 0.15 |
| OCTYL ACETATE                        | na | 0.06 |  | CIS-4-DECENAL | na | 0.06 |
| DECANAL                              | na | 0.04 |  |               |    |      |
| * EU Allergen <sup>65</sup> =Prop 65 |    |      |  |               |    |      |

|          |                            |
|----------|----------------------------|
| COMMENTS | Odor quality is excellent. |
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This Essential Oil is a 100% pure and natural product. It does not contain any artificial ingredients or adulteration of any kind to the best of our knowledge. The analysis and statements herein constitute the most complete information available to Eden Botanicals. This product is guaranteed by Eden Botanicals to be of excellent quality.

Eden Botanicals

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