

## **CERTIFICATE OF ANALYSIS (COA)**

| Product Name   | LAUREL BERRY OIL         |
|----------------|--------------------------|
| Botanical Name | Laurus nobilis           |
| CAS #          | 8007-48-5                |
| EINECS #       | -                        |
| INCI Name      | Laurus Nobilis Fruit Oil |

| Part Used         | Fruits                |
|-------------------|-----------------------|
| Extraction Method | -                     |
| Quality           | 100% Pure and Natural |

| <u>PROPERTIES</u>              | SPECIFICATIONS   | RESULTS  |
|--------------------------------|--|----------|
| Appearance                     | Pale green to olive green colored thick liquid                   | CONFORMS |
| Odour                          | Characteristic laurel aroma                                      | CONFORMS |
| Refractive Index               | 1.460 - 1.480 @ 20°C   | 1.474    |
| Specific Gravity (g/mL)        | 0.905 - 0.929 @ 20°C   | 0.918    |
| Saponification Value (mgKOH/g) | 198 - 206  | CONFORMS |
| Peroxide Value (meqO2/kg)      | Less than 5.0  | CONFORMS |
| Iodine Value (g I2/100g)       | 60 - 85  | CONFORMS |
| Moisture (%)                   | Maximum 0.1  | CONFORMS |
| Essential Oil Content (%)      | 1.0 – 3.0  | 1.7      |
| Solubility                     | Soluble in cosmetic esters and fixed oils;<br>Insoluble in water | CONFORMS |

## FREE ACID COMPOSITION

| FATTY ACID           | C-CHAIN     | SPECIFICATIONS (%) | RESULTS (%) |
|----------------------|-------------|--------------------|-------------|
| Lauric Acid          | C12:0       | 17.00 – 27.00      | 21.90       |
| Myristic Acid        | C14:0       | 0.50 - 1.70        | 1.10        |
| Palmitic Acid        | C16:0       | 12.00 - 20.00      | 14.50       |
| Stearic Acid         | C18:0       | 1.00 - 3.00        | 1.20        |
| Oleic Acid           | C18:1 (n-9) | 30.00 – 41.00      | 35.80       |
| Linoleic Acid        | C18:2 (n-6) | 17.20 – 27.10      | 23.60       |
| Alpha-Linolenic Acid | C18:3 (n-3) | Maximum 2.00       | 1.10        |



| MICROBIAL ANALYSIS                 | SPECIFICATIONS | <u>STANDARDS</u> | RESULTS  |
|------------------------------------|----------------|------------------|----------|
| Aerobic Mesophilic Bacterial Count | < 100 CFU/g    | ISO 21149        | CONFORMS |
| Yeast and Mould                    | < 10 CFU/g     | ISO 16212        | CONFORMS |
| Candida albicans                   | ABSENT / 1g    | ISO 18416        | CONFORMS |
| Escherichia coli                   | ABSENT / 1g    | ISO 21150        | CONFORMS |
| Pseudomonas aeruginosa             | ABSENT / 1g    | ISO 22717        | CONFORMS |
| Staphylococcus aureus              | ABSENT / 1g    | ISO 22718        | CONFORMS |

| HEAVY METAL TESTS          | SPECIFICATIONS | STANDARDS | RESULTS  |
|----------------------------|----------------|-----------|----------|
| Lead: Pb (mg/kg or ppm)    | < 10 ppm       | na        | CONFORMS |
| Arsenic: As (mg/kg or ppm) | < 2 ppm        | na        | CONFORMS |
| Mercury: Hg (mg/kg or ppm) | < 1 ppm        | na        | CONFORMS |

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