

CERTIFICATE OF ANALYSIS (COA)

| Product Name | CUCUMBER SEED OIL |
|----------------|--------------------------|
| Botanical Name | Cucumis sativus |
| CAS # | 70955-25-8; 89998-01-6 |
| EINECS # | 289-738-4 |
| INCI Name | Cucumis sativus Seed Oil |

| Part Used | Seeds |
|-------------------|-----------------------|
| Extraction Method | Cold Pressed |
| Quality | 100% Pure and Natural |

| PROPERTIES | SPECIFICATIONS | RESULT |
|-----------------------------------|--|----------|
| Appearance | Colorless to pale yellow colored liquid | CONFORMS |
| Odour | Characteristic light, pleasant odour | CONFORMS |
| Refractive Index | 1.470 - 1.480 @ 20°C | 1.474 |
| Specific Gravity (g/mL) | 0.915 - 0.930 @ 20°C | 0.923 |
| Saponification Value (mgKOH/g) | 180 - 190 | 184 |
| Peroxide Value (meq O2/kg) | Less than 2.0 | CONFORMS |
| Iodine Value (g I2/100g) | 110-140 | 120 |
| Free Fatty Acids (% oleic) | Less than 1.0 | 0.15 |
| Acid Value (mgKOH/g) | Less than 2.0 | 0.30 |
| Solubility | Soluble in cosmetic esters and fixed oils; Insoluble in water | CONFORMS |

FATTY ACID COMPOSITION:

| FATTY ACID | C-CHAIN | SPECIFICATIONS (%) | RESULTS |
|----------------------|--------------------|----------------------|--------------|
| Palmitic Acid | <u>C16:0</u> | <u>9.00 - 13.00</u> | <u>9.60</u> |
| Palmitoleic Acid | <u>C16:1 (n-7)</u> | <u>0.00 - 1.00</u> | <u>0.30</u> |
| Stearic Acid | <u>C18:0</u> | <u>6.00 – 9.00</u> | <u>6.50</u> |
| Oleic Acid | <u>C18:1 (n-9)</u> | <u>14.00 - 20.00</u> | 17.90 |
| Linoleic Acid | <u>C18:2 (n-6)</u> | <u>60.00 - 68.00</u> | <u>64.60</u> |
| Alpha-Linolenic Acid | <u>C18:3 (n-3)</u> | Maximum 1.00 | 0.50 |



| MICROBIAL ANALYSIS | SPECIFICATIONS | STANDARDS | 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 | <u>RESULTS</u> |
|----------------------------|----------------|-----------|----------------|
| 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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