



TREAT YOUR SOUL

CASTOR OIL

CERTIFICATE OF ANALYSIS

| | |
|-----------------------|-------------------------------------|
| Product Name | CASTOR OIL (IP/BP/USP Grade) |
| Botanical Name | Ricinus communis |

| | |
|------------------|-------------------------------|
| CAS # | 8001-79-4 |
| FEMA # | 2263 |
| EINECS # | 232-293-8 |
| INCI Name | Ricinus communis (Castor) Oil |

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

| <u>PROPERTIES</u> | <u>SPECIFICATIONS</u> | <u>RESULTS</u> |
|--|---|----------------|
| Appearance | Almost colorless to slightly yellow viscous liquid | CONFORMS |
| Odour | Very slight, distinct odour | CONFORMS |
| Refractive Index | 1.477 - 1.481 @ 20°C | 1.479 |
| Specific Gravity (g/mL) | 0.954 - 0.960 @ 20°C | 0.957 |
| Saponification Value (mgKOH/g) | 177 - 185 | 181 |
| Unsaponifiables (%) | Maximum 0.8% | CONFORMS |
| Moisture (%) | Less than 0.25% | CONFORMS |
| Peroxide Value (meq O₂/kg) | Less than 3.5 | CONFORMS |
| Iodine Value (g I₂/100g) | 82 - 90 | 85 |
| Free Fatty Acids (% oleic) | Less than 0.5 | 0.22 |
| Acid Value (mgKOH/g) | Less than 1.0 | 0.44 |
| Hydroxyl Value (mgKOH/g) | Greater than 150.0 | 163.8 |
| Optical Rotation (°) | 3.5° to 6° | CONFORMS |
| Solubility | Soluble in cosmetic esters and fixed oils; Insoluble in water | CONFORMS |

Address: 975 Lunt Ave., Schaumburg Illinois 60193, USA

Phone: (800)809-4941 | **Email:** support@thesulu.com | **Web:** www.thesulu.com



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FATTY ACID COMPOSITION:

| <u>FATTY ACID</u> | <u>C-CHAIN</u> | <u>SPECIFICATIONS (%)</u> | <u>RESULTS (%)</u> |
|----------------------|----------------|---------------------------|--------------------|
| Palmitic Acid | C16:0 | 0.50 ± 1.00 | 0.60 |
| Stearic Acid | C18:0 | 0.50 ± 1.00 | 0.82 |
| Oleic Acid | C18:1 (n-9) | 2.00 ± 6.00 | 3.40 |
| Ricinoleic Acid | - | 85.00 ± 95.00 | 90.30 |
| Linoleic Acid | C18:2 (n-6) | 1.00 ± 5.00 | 4.10 |
| Alpha-Linolenic Acid | C18:3 (n-3) | 0.50 ± 1.00 | 0.60 |

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

| <u>HEAVY METAL TESTS</u> | <u>SPECIFICATIONS</u> | <u>STANDARDS</u> | <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 |

STABILITY AND STORAGE:

Keep in tightly closed container in a cool and dry place, protected from sunlight. When stored for more than 24 months, quality should be checked before use.

As it is electronically generated document, hence no signature required.

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