



TREAT YOUR SOUL

# BORAGE OIL

## CERTIFICATE OF ANALYSIS

<b>Product Name</b>	<b>BORAGE SEED OIL</b>
<b>Botanical Name</b>	Borago officinalis
<b>CAS #</b>	84012-16-8 ; 225234-12-8
<b>EINECS #</b>	281-661-4
<b>INCI Name</b>	Borago Officinalis (Borage) Seed Oil

<b>Part Used</b>	Seeds
<b>Extraction Method</b>	Cold Pressed
<b>Quality</b>	100% Pure and Natural

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>	<u>RESULTS</u>
<b>Appearance</b>	Pale yellow to greenish yellow colored liquid	CONFORMS
<b>Odour</b>	Characteristic mild, pleasant odour	CONFORMS
<b>Refractive Index</b>	1.473 - 1.479 @ 20°C	1.476
<b>Specific Gravity (g/mL)</b>	0.910 - 0.935 @ 20°C	0.923
<b>Saponification Value (mgKOH/g)</b>	185 - 195	190
<b>Peroxide Value (meq O<sub>2</sub>/kg)</b>	Less than 8.0	CONFORMS
<b>Iodine Value (g I<sub>2</sub>/100g)</b>	125 - 160	145
<b>Free Fatty Acids (% oleic)</b>	Less than 2.0	CONFORMS
<b>Acid Value (mgKOH/g)</b>	Less than 4.0	CONFORMS
<b>Solubility</b>	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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## CERTIFICATE OF ANALYSIS

### FATTY ACID COMPOSITION:

<u>FATTY ACID</u>	<u>C-CHAIN</u>	<u>SPECIFICATIONS (%)</u>	<u>RESULTS (%)</u>
Palmitic Acid	C16:0	8.00 ± 13.00	9.90
Palmitoleic Acid	C16:1 (n-7)	Maximum 0.60	0.30
Stearic Acid	C18:0	2.00 ± 6.00	4.60
Oleic Acid	C18:1 (n-9)	14.00 ± 20.00	17.60
Linoleic Acid	C18:2 (n-6)	34.00 ± 45.00	37.90
Alpha-Linolenic Acid	C18:3 (n-3)	Maximum 0.50	0.30
Gamma-Linolenic Acid	C18:3 (n-6)	20.00 ± 25.00	20.90
11-Eicosenoic Acid	C20:1 (n-9)	3.00 ± 5.00	4.20
Erucic Acid	C22:1 (n-9)	1.00 ± 3.00	2.30
Nervonic Acid	C24:1 (n-9)	1.00 ± 2.50	1.50

<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 12 months, quality should be checked before use.

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

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