



Healing Body, Mind and Spirit
With Pure Essential Oils Since 1995

www.naturesgift.com

316 Old Hickory Blvd East
Madison, TN 37115
Tel(615)612-4270 fax (615)860-9171

orderdesk@naturesgift.com

Certificate of Analysis

Borage Seed CO2

batch #UK-561116

lab no: 23756
 type no: 070.001
 production: April 2016 Retest: October 2017 Expiration date: April 2019
 raw material: *Borago officinalis* - Seeds, dried
 country of origin of raw material: United Kingdom
 country of origin of product: Germany
 D/E - ratio: 3,1 - 3,5 kg raw material yield 1 kg product.
 Product contains: 0,1 % Rosemary Antioxidant Extract

Sensory Check

| feature | reference | result |
|-------------|-------------------|--------|
| Appearance: | clear, yellow oil | meets |

Analytical Check

| feature | method | limits | value unit |
|-----------------------------------|--------------------------------|-----------|---------------|
| Fatty acid composition: | | | |
| Palmitic Acid C16:0 | 21.156.03, GCFID | 10 - 15 | 10,3 % |
| Palmitoleic Acid C16:1 w7 | 21.156.03, GCFID | n.s. | 0,15 % |
| Stearic Acid C18:0 | 21.156.03, GCFID | n.s. | 3,1 % |
| Oleic Acid C18:1 w9 | 21.156.03, GCFID | n.s. | 14,7 % |
| Linoleic Acid C18:2 w6 | 21.156.03, GCFID | 35 - 45 | 39,7 % |
| gamma Linolenic Acid C18:3 w6 | 21.156.03, GCFID | 18 - 26 | 25,0 % |
| alpha Linolenic acid C18:3 w3 | 21.156.03, GCFID | n.s. | 0,23 % |
| Arachidic Acid C20:0 | 21.156.03, GCFID | n.s. | 0,23 % |
| Gadoleic Acid C20:1 w9 | 21.156.03, GCFID | n.s. | 3,7 % |
| Behenic Acid C22:0 | 21.156.03, GCFID | n.s. | n.d. % |
| Erucic Acid C22:1 w9 | 21.156.03, GCFID | < 5 | 0,19 % |
| Nervonic Acid C24:1 w9 | 21.156.03, GCFID | n.s. | 2,3 % |
| Fat numbers: | | | |
| Unsaponifiables | 21.020.03, DGF | < 4 | 2,6 % |
| Peroxide Value | 21.015.03, DGF, Wheeler | < 15 | 5,5 meq O2/kg |
| Acid value | 21.016.03, DGF | 5 - 10 | 9,9 mg KOH/g |
| Saponification value | 21.017.02, DGF | 160 - 210 | 189 mg KOH/g |
| Ester value | = SV - AV | 150 - 200 | 179 mg KOH/g |
| Sum of all Pyrrolizidin alkaloids | external analysis | < 50 | 11,5 ppb |
| Content of water | 21.220.01, Karl Fischer method | < 0,5 | 0,14 % |

n.s. = not specified

n.d. = not detected



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|---|----------------------------------|---------------------------------------|--------------------------|
| Refractive index (20°C) | 21.080.03, Abbe-Refractometer | 1,473 -1,479 | 1,4776 |
| Density (20°C) | 21.024.03, Pycnometer | 0,915 - 0,925 | 0,9215 g/cm ³ |
| Benzo(a)pyrene | GCMS | EC No. 1881/2006, EC No. 1933/2015 | meets (0,0014) ppm |
| Sum of benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene | GCMS | EC No. 1881/2006, EC No. 1933/2015 | meets (0,0041) ppm |
| aw-value | LabSwift aw-value Measurement | | < 0,6 0,575/ 24,2°C |

n.s. = not specified n.d. = not detected

Storage conditions: Store in a cool, dry place and under inert gas!

Digitally signed by Anja Cawelius
Reason: Quality Control
Date: 2017.10.27

The product meets specifications no. 16.066.09/66.001.05; date of analysis: 2017.10.27

This computerized CoA has digital signature validated by Nature's Gift

The data in this report of analysis have been determined carefully and to the best of our knowledge. Depending on transport and storage conditions the indicated data can be subject to certain changes which are outside of our influence. Hence the report has not the meaning of a guaranty in the legal sense and does not dispense the customer from making his own quality control before using the product.