

Certificate of Analysis

Product	SEABUCKTHORN PULP, CO2-TO EXTRACT
Lot #	102304
Shelf Life	5 years

Properties	Specifications	Results
Sensory Check		
Appearance	Orange-red, at room temperature turbidness by some precipitates possible	Meets
Odour	Seabuckthorn typical smell	Meets
Analytical Check		
Fatty Acid Composition		
Palmitic Acid C16:0	30 – 40	34.7
Palmitoleic Acid C16:1 w7	22 – 40	32.0
Stearic Acid C18:0	<3	0.76
Oleic Acid C18:1 w9	10 – 28	21.9
Vaccenic Acid C18:1 w7	4 – 9	7.0
Linoleic Acid C18:2 w6	1 – 9	2.5
Alpha Linolenic Acid C18:3 w3	<5	0.98
Arachidic Acid C20:0	Not specified	0.21
Total fat	Not specified	100.0
Saturated fatty acids	Not specified	35.7
Monounsaturated fatty acids	Not specified	60.8
Polyunsaturated fatty acids	Not specified	3.5
Fat numbers		
Unsaponifiables	1 – 7	3.6
Peroxide Value	<11	3.1
Acid Value	4 – 18	7.0
Saponification Value	170 – 210	194
Iodine Value	50 – 90	68
Ester Value	Not specified	187
Sum of carotenoids (calc. as β -Carotene)	0.10 – 0.20	0.12
Sum of Sterols (calc. as Sitosterol)	>1	1.1
Sum of Tocopherols (calc.as alpha Tocopherol)	Not specified	0.07
Content of water	<1	0.03
Aw-value	<0.7	0.31 (23.9 ^o C)
Refractive Index 20 ^o C	1.460 – 1.480	1.4685
Density 20 ^o C	0.910 – 0.925	0.9113
Benz(a)pyrene	<0.002	Meets ppm



Properties	Specifications	Results
Sum of Benz(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene	<0.010	Meets ppm

This Certificate of Analysis was created by the manufacturer/distiller of the product. This information is believed to be up-to-date and correct; however, it is provided without any warranty. The customer is responsible for examining the product upon arrival and determining the safe use of the product in order to be in compliance with all applicable laws and regulations. The product must be stored in a cool, dry place away from direct light and heat, tightly sealed and away from children, the mentally infirm and pets. Essential oils shipped in amber plastic pharmaceutical grade bottles must be transferred to amber glass upon arrival, those shipped in aluminum bottles may be stored in such bottles for a minimum of 6 months, tightly sealed. All responsibility (including damage or injury) for the use of this and any other product purchased from Camden-Grey Essential Oils, Inc. rests with the purchaser/user. Camden-Grey's liability is limited to the paid value of this product.

Certificate of Analysis

Product	SEABUCKTHORN PULP, CO2-TO EXTRACT
Lot #	391108
Shelf Life	5 years

Properties	Specifications	Results
Analytical Check		
Sum of carotenoids (calc. as β -Carotene)	0.10 – 0.20	0.12
Sum of Sterols (calc. as Sitosterol)	>1	1.4
Sum of Tocopherols (calc.as alpha Tocopherol)	Not specified	0.11
Aw-value	<0.7	0.41 (23.0 OC)
Content of water	<1	0.11
Refractive Index 20 °C	1.460 – 1.480	1.4710
Density 20 °C	0.910 – 0.925	0.9108
Benz(a)pyrene	<0.002	Meets ppm
Sum of Benz(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene	<0.010	Meets ppm

Sensory Check

Appearance	Orange-red, at room temperature turbidness by some precipitates possible	Meets
Odour	Seabuckthorn typical smell	Meets

Analytical Check

Fatty Acid Composition

Palmitic Acid C16:0	30 – 40	34.1
Palmitoleic Acid C16:1 w7	22 – 40	32.2
Stearic Acid C18:0	<3	0.74
Oleic Acid C18:1 w9	10 – 28	20.7
Vaccenic Acid C18:1 w7	4 – 9	6.9
Linoleic Acid C18:2 w6	4 – 9	4.0
Alpha Linolenic Acid C18:3 w3	<5	1.3
Arachidic Acid C20:0	Not specified	0.17
Total fat	Not specified	100.0
Saturated fatty acids	Not specified	35.4
Monounsaturated fatty acids	Not specified	60.4
Polyunsaturated fatty acids	Not specified	4.2

Fat numbers



Properties	Specifications	Results
Unsaponifiables	1 – 7	4.7
Peroxide Value	<11	2.3
Acid Value	4 – 18	8.9
Saponification Value	170 – 210	180
Ester Value	Not specified	171
Iodine Value	50 – 90	59.2

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