



Certificate of Analysis

Seabuckthorn Berries CO2-to extract (organic)

Art. No. CO2-SEAB-50

batch no. : 322416, lab no. 35228
 production : February 2023 - Retest: February 2025
 raw material : *Hippophae rhamnoides* - Berries, dried, from organic farming
 country of origin of raw material : Pakistan
 country of origin of product : Germany
 D/E - ratio : 7 - 10 kg raw material yield 1 kg product
 Product contains : 0,08 % Rosemary Antioxidant Extract (organic)

Sensory Check

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feature	reference	result
Appearance:	Orange to red oil, at room temperature a little turbid by some precipitates	meets
Odor:	Characteristic	meets

Analytical Check

feature	method	limits	value	unit
Fatty acid composition:				
Palmitic Acid C16:0	21.156.03, GCFID	20-30	29,1	%
Palmitoleic Acid C16:1 w7	21.156.03, GCFID	28-38	37,2	%
Stearic Acid C18:0	21.156.03, GCFID	n.s.	1,3	%
Oleic Acid C18:1 w9	21.156.03, GCFID	10-20	14,6	%
Vaccenic Acid C18:1 w7	21.156.03, GCFID	> 6	8,7	%
Linoleic Acid C18:2 w6	21.156.03, GCFID	n.s.	6,3	%
alpha Linolenic Acid C18:3 w3	21.156.03, GCFID	n.s.	2,7	%
Arachidic Acid C20:0	21.156.03, GCFID	n.s.	0,22	%
Total fat	DGF method C-VI 10b	n.s.	100	%
Saturated fatty acids	DGF method C-VI 10b	n.s.	30,6	%
Monounsaturated fatty acids	DGF method C-VI 10b	n.s.	60,4	%
Polyunsaturated fatty acids	DGF method C-VI 10b	n.s.	9,0	%
Fat numbers:				
Unsaponifiables	21.020.03, DGF	n.s.	2,1	%
Peroxide Value	21.015.03, DGF Wheeler	< 15	< 1	meq O2/kg
Acid Value	21.016.03, DGF	< 18	9,4	mg KOH/g
Saponification Value	21.017.02, DGF	n.s.	202	mg KOH/g
Ester Value	= SV-AV	n.s.	193	mg KOH/g

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

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Analytical Check

feature	method	limits	value	unit
Sum of Tocopherols (calc. as alpha Tocopherol)	21.013.03, HPLC	n.s.	0,09	%
Sum of Sterols (calc. As Sitosterol)	21.132.03, GCFID	> 0,80	1,2	%
Sum of Carotenoides (calc. as β -Carotene)	21.008.05, Spectrometer	0,05-0,20	0,052	%
Content of water	21.220.01, Karl Fisher method	n.s.	0,19	%
aw Value	LabSwift aw Value Measurement	< 0,7	0,587 (21,8°C)	
Refractic index	21.080.03 Abbe-Refractometer	1,460-1,480	1,4681	
Density (20°C)	21.024.03, Pycnometer	0,910-0,925	0,9180	g/cm ³
Benzo(a)pyrene	21.177.02, GCMS	< 0,002	meets	ppm
Sum of benzo(a)pinene, benz(a)anthracene, benzo(b)fluoranthene,	21.177.02, GCMS	< 0,010	meets	ppm
Pesticides	external analyses	EC no. 396/2005	meets	

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

The product meets the current version of the analytical (041.023_04_AS) and general (041.023_06_S) specification.

Date of analysis: 2023.02.08

This computerized CoA has digital signature validated by MANUFACTURER QC.

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. For further product-relevant substances, see IFRA list and cosmetic allergen list.