



## Certificate of Analysis

### Wheat Bran CO2-to extract (organic)



Art. No. CO2-WHBR-50

batch no. : 502.005, lab no. 29018  
 production : March 2020 - Retest: March 2022  
 raw material : *Triticum vulgare* - Bran, dried, from organic farming  
 country of origin of raw material : Germany  
 country of origin of product : Germany  
 D/E - ratio : 29 - 40 kg raw material yield 1 kg product  
 Product contains : 0,1 % Rosemary Antioxidant Extract

#### Sensory Check

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feature	reference	result
Appearance:	Orange-Yellow oil with some precipitation depending on temperature	meets

#### Analytical Check

feature	method	limits	value	unit
<b>Fatty acid composition</b>				
Palmitic Acid C16:0	21.156.03, GCFID	n.s.	16,3	%
Palmitoleic Acid C16:1 w7	21.156.03, GCFID	n.s.	0,23	%
Stearic Acid C18:0	21.156.03, GCFID	n.s.	0,89	%
Oleic Acid C18:1 w9	21.156.03, GCFID	14-21	16,3	%
Vaccenic Acid C18:1 w7	21.156.03, GCFID	n.s.	0,86	%
Linoleic Acid C18:2 w6	21.156.03, GCFID	50-65	59,9	%
alpha Linolenic Acid C18:3 w3	21.156.03, GCFID	n.s.	5,4	%
Arachidic Acid C20:0	21.156.03, GCFID	n.s.	0,16	%
<b>Total fat</b>				
Total fat	DGF method C-VI 10b	n.s.	100	%
<b>Saturated fatty acids</b>				
Saturated fatty acids	DGF method C-VI 10b	n.s.	17,4	%
<b>Monounsaturated fatty acids</b>				
Monounsaturated fatty acids	DGF method C-VI 10b	n.s.	17,3	%
<b>Polyunsaturated fatty acids</b>				
Polyunsaturated fatty acids	DGF method C-VI 10b	n.s.	65,3	%
<b>Fat numbers:</b>				
Unsaponifiables	21.020.03, DGF	3-8	5,6	%
Peroxide Value	21.015.03, DGF Wheeler	< 15	2,7	meq O2/kg
Acid Value	21.016.03, DGF	n.s.	39,8	mg KOH/g
Saponification Value	21.017.02, DGF	n.s.	176	mg KOH/g
Ester Value	= SV-AV	n.s.	137	mg KOH/g
<b>Sum of Tocopherols (calc. as alpha Tocopherol)</b>				
Sum of Tocopherols (calc. as alpha Tocopherol)	21.013.03, HPLC	n.s.	0,41	%
<b>Sum of Sterols (calc. As Sitosterol)</b>				
Sum of Sterols (calc. As Sitosterol)	21.132.03, GCFID	> 2	2,7	%

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

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### Analytical Check

feature	method	limits	value	unit
Content of water	21.220.01, Karl Fisher method	< 1	0,45	%
aw Value	LabSwift aw Value Measurement	< 0,7	0,7 (23,4°C)	
Content of Alkylresorcinols (clan. As 5-Pentadecylresorcinol)	21.183.02, HPLC	n.s.	1,1	%
Aflatoxine B1	21.193.02, HPLC	EC No. 1881/2006	meets (n.d.)	ppb
Total Aflatoxines B1, B2, G1, G2	21.193.02, HPLC	EC No. 1881/2006	meets (0,37)	ppb
Ochratoxin A	21.197.01, HPLC	EC No. 1881/2006	meets (0,16)	ppb
Benzo(a)pyrene	21.177.02, GCMS	< 0,002	0,001	ppm
Sum of benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and Chrysene	21.177.02, GCMS	< 0,010	0,006	ppm
Gluten	external analysis	< detection limit (5) (Monitoring)	meets	ppm

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

The product meets specification no. 180.003\_04\_AS) and 66.333.06

Date of analysis: 2020.03.20

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.