



## Certificate of Analysis

### Rhatany Root CO2-to extract - standardized



Art. No. CO2-RHAT-05 | CO2-RHAT-10

batch no. : 012.304, lab no. 32020  
 production : July 2021 - Retest: July 2026  
 raw material : *Krameria lappacea* - Root, dried  
 country of origin of raw material : Peru  
 country of origin of product : Germany  
 D/E - ratio : 24 - 33 kg raw material yield 1 kg product  
 Product contains : about 40% Olive oil (organic)

#### Sensory Check

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feature	reference	result
Appearance:	Orange brown, viscous liquid	meets

#### Analytical Check

feature	method	limits	value	unit
Specific extinction value	Spectrometer: 280 nm	> 20	25,1	cm <sup>2</sup> /mg
Specific extinction value	Spectrometer: 300 nm	n.s.	23,0	cm <sup>2</sup> /mg
Specific extinction value	Spectrometer: 320 nm	n.s.	21,9	cm <sup>2</sup> /mg
Specific extinction value	Spectrometer: 340 nm	n.s.	8,8	cm <sup>2</sup> /mg
Rhatany lignan I	21.146.032, GC	n.s.	9,3	%
Rhatany lignan II	21.146.032, GC	n.s.	9,6	%
Rhatany lignan III	21.146.032, GC	n.s.	0,80	%
Rhatany lignan IV	21.146.032, GC	n.s.	3,0	%
Rhatany lignan V	21.146.032, GC	n.s.	0,37	%
Sum of Rhatany lignans	21.146.032, GC	20-30	23,1	%
Residual content of ethanol	21.025.05, GCFID	≤ 2	1,9	%

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

Rhatany lignan 1: (2R,2R)-2,3-dihydro-2-(4-hydroxyphenyl)-3-methyl-5-(E)-propenylbenzofuran

Rhatany lignan 2: 2-(4-hydroxyphenyl)-3-methyl-5-(E)-propenylbenzofuran

Rhatany lignan 3: 2-(2,4-dihydroxyphenyl)-5-(E)-propenylbenzofuran

Rhatany lignan 4: 2-(2-methoxy-4-hydroxyphenyl)-5-(E)-propenylbenzofuran

Rhatany lignan 5: 3-formyl-2-(4-hydroxyphenyl)-5-(E)-propenylbenzofuran

The product meets the current version of the analytical (159.005\_01\_AS) and of the general (159.005\_04\_S) specification.

Date of analysis: 2021.07.29

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.