



## Certificate of Analysis

### Caraway CO2-se extract

Batch #GE-571307

production: August 2017      retest: August 2022  
raw material:                      *Carum carvi* - Seeds, dried  
country of origin of raw material: Poland  
country of origin of product:      Germany  
D/E - ratio:                        22 - 28 kg raw material yield 1 kg product.

#### Sensory Check

feature	reference	result
Appearance:	light yellow, clear oil	meets
Odour:	characteristic	meets

#### Analytical Check

feature	method	limits	value unit
Content of essential oil	21.006.01, Distillation, gravimetric	75 - 95	79,9 % (g/ 100g)
Composition of the volatile compounds:	GCMS, 100 % Method		
Limonene	GCMS, caraway.met	25 - 50	39,9 %
(S)-(+)-Carvone	GCMS, caraway.met	50 - 75	58,0 %
Refractive index (20°C)	21.080.03, Abbe-Refractometer	1,480 - 1,495	1,4868
Density (20°C)	21.024.03, Pycnometer	0,900 - 0,930	0,9105 g/cm <sup>3</sup>

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

Storage conditions: Store in a cool, dry place!

The product meets specifications no. 16.129.07/66.073.09; date of analysis: 2017.08.30

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.