



Article	G456	Oleum Foeniculi amari	
Synonym		Bitterfenchelöl	
Synonym		Bitter-fennel fruit oil	
Batch	24000537		
Specification	Ph.Eur.11.0		
Production date	02.2024	Retest date	02.2027

Test	Specification	Result
Characters	According to specification	Complies
Appearance	According to specification	Complies
Identification	According to specification	Complies
Thin-layer chromatography	According to specification	Not carried out
Gas chromatography	According to specification	Complies
Tests	According to specification	Complies
Relative density	0,961 ... 0,975	0.963
Refractive index	1,528 ... 1,539	1.529
Optical rotation	10,0 ... 24,0	14.7 °
Chromatographic profile	According to specification	Complies
Alpha-Pinene	1,0 ... 10,0 %	7.0 %
Limonene	0,9 ... 5,0 %	2.9 %
Fenchone	12,0 ... 25,0 %	16.8 %
Estragole	Max. 6,0 %	3.4 %
Cis-Anethole	Max. 0,5 %	0.3 %
Trans-Anethole	55,0 ... 75,0 %	67.4 %
Anisaldehyde	Max. 2,0 %	0.0 %
Alpha-Pinene/Limonene ratio	Min. 1,0	2.4
Fatty oils and resinified ess. oils	According to specification	Complies
Heavy metals	According to specification	Complies
Lead	Max. 5,0 ppm	0.0 ppm
Cadmium	Max. 0,1 ppm	0.0 ppm
Mercury	Max. 0,1 ppm	0.0 ppm
Pesticide residues	According to specification	Complies
Aflatoxins	According to specification	Complies
Microbiological quality	According to specification	Complies

## Certificate of analysis



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Test	Specification	Result
TAMC (CFU/g)	Max. 200 CFU/g	< 100 CFU/g
TYMC (CFU/g)	Max. 20 CFU/g	< 10 CFU/g
Escherichia coli	Max. 0 CFU/g	0 CFU/g
Salmonella	Max. 0	0 KBE/10g
Staphylococcus aureus	Max. 0 CFU/g	0 CFU/g
Pseudomonas aeruginosa	Max. 0 CFU/g	0 CFU/g
Gram-negative bacteria that tolerate bile salts	Max. 0 CFU/g	0 CFU/g
Complies specification		Yes

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Release date	04.06.2024	Released by	Frau Apoth. Dr. Schücker, QP
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Results marked with # were taken from the manufacturer's certificate.

The batch 24000537 complies specification.

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