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Certificate of Analysis & Gas Chromatography

Organic Brazilian Pepper Essential Oil

(*Schinus terebinthifolia*)

Batch Number : 210618-5

Botanical name:	<i>Schinus terebinthifolia</i> Raddi
INCI :	SCHINUS TEREBINTHIFOLIUS FRUIT OIL
Certifications :	Organic food product from organic farming certified by FR-BIO-01 Fair trade controlled by ECOCERT Environment according to the ESR standard available on www.ecocert.com (Certification according to the lots, mentioned on the invoice).
How to obtain:	Obtained by steam distillation of the <i>Schinus terebinthifolia</i> Raddi berries

CONSERVATION AND DDM

Minimum Durability Date: Late 2019
 Store in closed containers well, protected from light and at a stable, moderate temperature.
 Handle in a well-ventilated room away from sources of ignition and heat.

ORGANOLEPTIC CHARACTERISTICS

Internal Method Analysis

Property	Result	Specification
Aspect :	Liquid	Clear moving liquid
Colour :	Pale yellow	Pale yellow to green
Odour :	Aromatic	Spicy, aromatic, peppery

PHYSICAL CHARACTERISTICS

Analysis according to PE method in force.

Analysis	Result	Specification	Conditions of analysis
Density @ 20°C :	0,878	0,862 @ 0,890	measured by an oscillating tube densimeter @ 20°C
Refractive index @ 20 °C :	1,478	1,470 @ 1,485	measured @ 20 ° C under cold light
Rotating power @ 20 °C :	6,00°	2° @ 35°	measured @ 20 ° C under a thickness of 1dm at the sodium wavelength D ($\lambda = 589.3\text{nm}$)

CHROMATOGRAPHIC PROFILE

Interpretation of the profile: In Appendix

Comments :	
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OBSERVATION

The validity and use of this Analysis Bulletin are reserved for this lot only, the results shown here correspond to those obtained at the time of the analysis.

INTERPRETATION OF THE CHROMATOGRAPHIC PROFILE

Components	Results (%)	Specifications (%)
α pinene	10,70	7,00 à 12,00
camphene	0,06	
β pinene	0,41	
sabinene	7,33	<= 10,00
δ 3 carene	37,67	34,00 à 42,00
myrcene	3,14	
α phellandrene	11,85	5,00 à 16,00
α terpinene	0,05	
limonene	5,51	<= 8,00
β phellandrene	4,06	
γ terpinene	0,87	
trans β ocimene	0,09	
para cymene	2,81	<= 8,00
terpinolene	1,09	
α copaene	0,14	
terpinen-4-ol	1,14	
β caryophyllene	0,93	
α humulene	0,17	
germacrene d	3,52	
α terpineol	0,29	
bicyclogermacrene	0,98	
δ cadinene	0,98	
caryophyllene oxyde	0,43	
spathulenol	1,17	

Conditions of chromatographic analysis

CG: performed on a 7890B device

by the Internal laboratory

Column : DB-WAX , 20 m, 100 μm, 0.2 μm

Oven temperature: 60°C (2 min) 12°C/mn 248°C (5 min)

Integration: percentage of area - threshold: 0,05 %

Analytical conditions according to standards ISO 7609 (1985), 11024-1 (1998) and 11024-2 (1998).

The compounds are identified from the comparison of the retention times with those of standards derived from computerized and personal databases.

The% are calculated from the peak areas given by the GC / FID.

Injection : split - 279ml/mn

Detector temperature: 275 °C

Detector type: Flame ionization

Injected volume: 0,2 μl

Vector gas: Hydrogen - 0,7 ml/mn