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Certificate of Analysis & Gas Chromatography
Organic Lavender Fine AOP Essential Oil
(Lavandula angustifolia)

Batch Number : 260718-4
Country of Origin : France, Haute Provence

Date de création : 26/04/2011
Date de révision : 14/05/2014
Version n° : 03.00

Botanical name:	***Lavandula angustifolia Miller (Syn : Lavandula officinalis Chaix)***
INCI :	**LAVANDULA ANGUSTIFOLIA HERB OIL (Syn : LAVANDULA OFFICINALIS FLOWER OIL)**
Certifications :	**Organic food product from organic farming certified by FR-BIO-01**
How to obtain:	**Obtained by steam distillation of the flowering tops of the Lavandula angustifolia Miller (Syn : Lavandula officinalis Chaix)**

CONSERVATION AND DDM

Minimum Durability Date: End 2020
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**	*Light yellow to orange*
Odour :	**Rural, herby**	*Rural, floral and herbaceous*

PHYSICAL CHARACTERISTICS

- **Analysis according to PE method in force.**

Analysis	Result	Specification	Conditions of analysis
Density @ 20°C :	**0,880**	*0,880 à 0,890*	measured by an oscillating tube densimeter @ 20°C
Refractive index @ 20 °C :	**1,460**	*1,450 à 1,464*	measured @ 20 ° C under cold light
Rotating power @ 20 °C :	**-10,00°**	*-12° à -7°*	measured @ 20 ° C under a thickness of 1dm at the sodium wavelength D (λ = 589.3nm)

CHROMATOGRAPHIC PROFILE

· **Interpretation of the profile: In Appendix**

· **Comments :**	

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

Composants	Résultats (%)	Spécifications (%)
methyl hexyl ether	**0,06**	
α pinene +	**0,26**	
α thujene	**0,13**	
camphene	**0,20**	
β pinene	**0,13**	
myrcene	**0,39**	
α terpinene	**0,05**	
limonene	**0,24**	
β phellandrene	**0,11**	
cineol 1,8	**0,52**	
cis β ocimene	**5,72**	3,00 à 8,00
γ terpinene	**0,20**	
trans β ocimene	**3,73**	
octanone 3	**0,79**	
acetate d'hexyle	**0,05**	
para cymene	**0,47**	
terpinolene	**0,05**	
hexyl isobutyrate	**0,10**	
acetate de 1 octene-3-yle	**0,96**	
butyrate d' hexyle	**0,28**	
octen-1-ol-3	**0,52**	
camphre	**0,19**	
linalol	**29,99**	25,00 à 36,00
linalyl acetate	**33,33**	26,00 à 40,00
α santalene	**0,55**	
bornyl acetate		
lavandulyl acetate	**8,38**	2,00 à 7,00
terpinene 4 ol		
β caryophyllene	**5,04**	2,00 à 7,00
trans β farnesene	**1,59**	
lavandulol	**1,02**	
α humulene	**0,17**	
α terpineol	**0,32**	
borneol	**0,72**	
germacrene d	**0,65**	
geranyl acetate	**0,24**	
geraniol	**0,20**	
caryophyllene oxyde	**0,29**	
tau cadinol	**0,14**	
nerol	**0,09**	
octanol 3	**0,11**	
delta elemene	**0,12**	
sabinene	**0,06**	
delta 3 carene	**0,07**	

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 %

Injection : split - 279ml/mn

Detector temperature: 275 °C

Detector type: Flame ionization

Injected volume:0,2 µ

Vector gas: Hydrogen - 0,7 ml/mn

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.