

Customer :

SMILJE J.D.O.O

**Macure 23
KISTANJE**

**22305
CROATIA**

Sample Nature : ESSENTIAL OIL
Botanical name : HELICHRYSUM ITALICUM
Common name : HELICHRYSUM
Batch number : -
Origin : CROATIA
Plant part : LEAF WITH FLOWER
Our reference : V989

Receipt : 15/02/19

Analysis date : 21/02/19

Packaging : Amber flask of 5 ml

Requested analysis : Simple analysis

Sample storage : 1 year - - room temperature

Comments and conclusions :

**BATCH IN COMPLIANCE WITH THE STANDARD OF
CROATIAN HELICHRYSUM ITALICUM ESSENTIAL OIL**

Report validated by :

Daniel Dantin - *Laboratory director*

Line Pauset – *Quality manager*

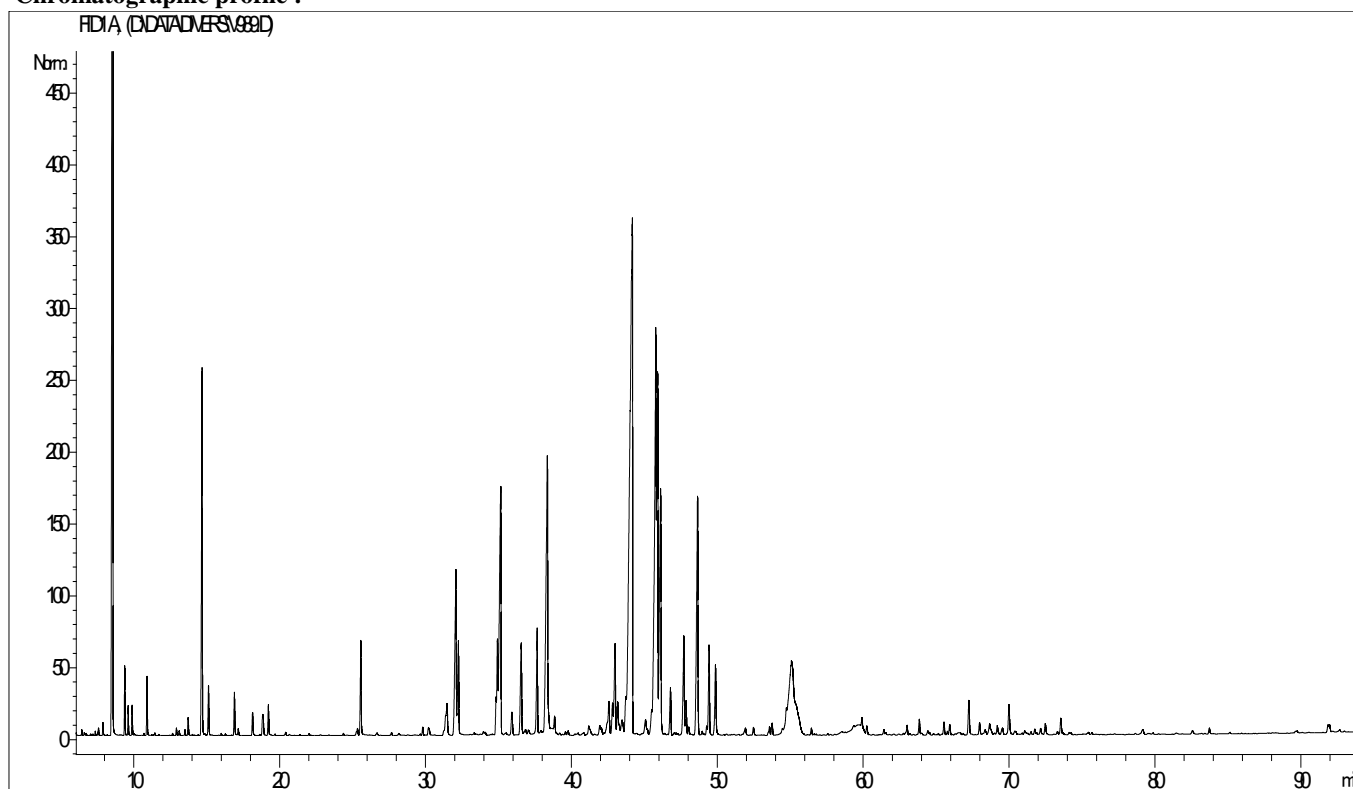


GAS CHROMATOGRAPHY (according to the norm NF ISO 11024)

Analysis conditions :

- . GC 7890 / MS 5975 – Column : VF WAX (polar) 60 m * 0.25 mm * 0.25 µm
- . GC 6890 FID – Column : HP VF WAX (polar) 60 m * 0.25 mm * 0.25 µm
- . Temperature program : 5 mn to 60 °C - 2 °C/mn - 250 °C - 10 mn to 250°C
- . Carrier gas : He (23 psis/MS – 30 psis/FID)
- . Sample injection / split : 1 µl of 10 % solution in hexane
- . Mass range : 30 to 350 - Oil compounds are identified by a combination of retention times (our own database) and mass spectra library NKS 75 000 records.
- . Percentages are calculated from GC/FID peaks areas without using corrections factors.

Chromatographic profile :



Identification results : **HELICHRYSUM CROATIA**

Peak	RT (min)	Compound name	%	Norm (%)	Allergens (%)
1	8,7	alpha-PINENE	18,54		
2	14,7	LIMONENE	3,33		3,33
3	15,1	1,8-CINEOLE	0,41		
4	25,6	ISOAMYL ANGELATE	0,91		
5	32,1	alpha-COPAENE	2,38		
6	32,2	ISOITALICENE	1,18		
7	35,1	ITALICENE	4,17		
8	35,2	LINALOL	0,97		0,97
9	36,6	alpha-cis-BERGAMOTENE	1,25		
10	37,6	alpha-trans-BERGAMOTENE	1,17		
11	38,3	beta-CARYOPHYLLENE	4,71		
12	44,2	gamma-CURCUMENE	15,17		
13	45,8	NERYL ACETATE	7,43		
14	46,0	beta-SELINENE	4,64		
15	46,1	alpha-SELINENE	3,97		
16	46,8	beta-CURCUMENE	0,56		
17	47,7	delta-CADINENE	1,31		
18	48,6	alpha-CURCUMENE	3,44		
19	49,4	NERYL PROPIONATE	1,03		
20	50,0	NEROL	0,91		
21	55,1	ITALIDIONE I Mw=210	3,72		
22	55,3	ITALIDIONE II Mw=224	1,43		
23	58,7	ITALIDIONE III Mw=238	1,18		
		TOTAL	83,81		4,30