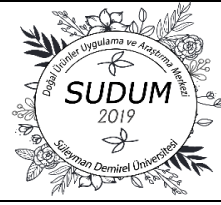




Suleyman Demirel University  
Natural Product Application and Research  
Center  
(SUDUM)



Report Number 2407064  
Report Date 25.07.2024

PRIVATE REQUEST ANALYSIS REPORT

**Purpose of Analysis** : Content Analysis with GC-MS  
**Request Submitted By** : Balkan Tibbi Tarim San. ve Tic. Ltd. Sti.  
**Date the sample was taken** : 22.07.2024  
**Date of the experiment** : 24.07.2024  
**Name and identity of test item** : Helichrysum italicum Oil  
**Lot no** : 2

TEST RESULTS

No	Detected Active Substance	% Quantity	Measurement Limit	Unit	Analysis Method
1	$\alpha$ -Pinene	2.96	0.01%	% (Peak rate)	GC-MS
2	Camphene	0.57	0.01%	% (Peak rate)	GC-MS
3	$\beta$ -Pinene	0.60	0.01%	% (Peak rate)	GC-MS
4	$\alpha$ -Myrcene	0.12	0.01%	% (Peak rate)	GC-MS
5	Delta-3-carene	0.10	0.01%	% (Peak rate)	GC-MS
6	$\alpha$ -Terpinene	0.27	0.01%	% (Peak rate)	GC-MS
7	o-Cymene	0.27	0.01%	% (Peak rate)	GC-MS
8	dl-Limonene	5.22	0.01%	% (Peak rate)	GC-MS
9	cis-Ocimene	0.05	0.01%	% (Peak rate)	GC-MS
10	$\alpha$ -Ocimene Y	0.07	0.01%	% (Peak rate)	GC-MS
11	$\gamma$ -Terpinene	1.10	0.01%	% (Peak rate)	GC-MS
12	$\alpha$ -Terpinolene	0.23	0.01%	% (Peak rate)	GC-MS
13	$\alpha$ -Linalool	0.92	0.01%	% (Peak rate)	GC-MS
14	2-Methylbutyl 2-methylbutyrate	0.28	0.01%	% (Peak rate)	GC-MS
15	p-Vinylanisole	0.10	0.01%	% (Peak rate)	GC-MS
16	2-methyl butyl angelate	1.01	0.01%	% (Peak rate)	GC-MS
17	4-Terpineol	0.41	0.01%	% (Peak rate)	GC-MS
18	$\alpha$ -Terpineol	0.61	0.01%	% (Peak rate)	GC-MS
19	4-Methyl-3-hexanone	0.40	0.01%	% (Peak rate)	GC-MS
20	n-Dodecane	0.07	0.01%	% (Peak rate)	GC-MS
21	n-Decanal	0.15	0.01%	% (Peak rate)	GC-MS
22	Nerol	0.43	0.01%	% (Peak rate)	GC-MS
23	Hexyl senecioate	0.29	0.01%	% (Peak rate)	GC-MS
24	$\alpha$ -Amorphene	0.06	0.01%	% (Peak rate)	GC-MS
25	$\alpha$ -Ylangene	0.11	0.01%	% (Peak rate)	GC-MS
26	$\alpha$ -Copaene	4.42	0.01%	% (Peak rate)	GC-MS
27	Neryl acetate	16.25	0.01%	% (Peak rate)	GC-MS
28	Italidione I + Italidione II	4.66	0.01%	% (Peak rate)	GC-MS
29	Italidione III	3.33	0.01%	% (Peak rate)	GC-MS
30	Italicene	1.33	0.01%	% (Peak rate)	GC-MS
31	trans-Caryophyllene	5.11	0.01%	% (Peak rate)	GC-MS
32	$\alpha$ -Bergamotene	1.41	0.01%	% (Peak rate)	GC-MS
33	Trans- $\alpha$ -Bergamotene	1.28	0.01%	% (Peak rate)	GC-MS
34	Bisabolane	6.55	0.01%	% (Peak rate)	GC-MS
35	Acoradiene	0.55	0.01%	% (Peak rate)	GC-MS
36	Geranyl propionate	2.17	0.01%	% (Peak rate)	GC-MS
37	$\alpha$ -Selinene	6.87	0.01%	% (Peak rate)	GC-MS
38	$\gamma$ -Curcumene	16.74	0.01%	% (Peak rate)	GC-MS
39	ar-Curcumene	2.93	0.01%	% (Peak rate)	GC-MS
40	(-)- $\alpha$ -Selinene	5.33	0.01%	% (Peak rate)	GC-MS
41	$\gamma$ -Murolene	0.67	0.01%	% (Peak rate)	GC-MS
42	$\alpha$ -Himachalene	0.67	0.01%	% (Peak rate)	GC-MS
43	e-Cadinene	1.07	0.01%	% (Peak rate)	GC-MS
44	Rosifoliol	0.40	0.01%	% (Peak rate)	GC-MS
45	Junipercamphor	0.36	0.01%	% (Peak rate)	GC-MS
46	Other compounds	1.53	0.01%	% (Peak rate)	GC-MS
<b>Total</b>		<b>100.00</b>			

As a result of the examinations and analyzes carried out, the values mentioned above were determined.

**NOTE 1** : This analysis report cannot be used in judicial-administrative procedures and for advertising purposes.

**NOTE 2** : No part of this analysis report can be used alone or separately.

**NOTE 3** : The results of the analysis are valid for the sample mentioned above.

**NOTE 4** : Our reports cannot be reproduced and published without our permission. Unsigned reports are invalid.

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