

GC/MS BATCH NUMBER: O50103

ESSENTIAL OIL: OREGANO ORGANIC
BOTANICAL NAME: ORIGANUM VULGARE
ORIGIN: HUNGARY

KEY CONSTITUENTS PRESENT IN THIS BATCH OF OREGANO ORGANIC OIL	%
CARVACROL	64.9
p-CYMENE	13.0
γ-TERPINENE	7.1
THYMOL	3.7
LINALOOL	2.2
α-PINENE	1.9
MYRCENE	1.7
β-CARYOPHYLLENE	1.1

Comments from Robert Tisserand: This oregano oil has an excellent odor quality and the lab report shows a good quality, genuine oil.

Date : August 25, 2016

SAMPLE IDENTIFICATION

Internal code : 16H10-PTH12-1-DM

Customer identification : Organic Oregano - Hungary - O50103510R

Type : Essential oil

Source : *Origanum vulgare*

Customer : Plant Therapy

ANALYSIS

Method : PC-PA-001-15E06, "Analysis of the composition of a liquid essential oil by GC-FID" (in French).

Analyst : Sylvain Mercier, M. Sc., chimiste

Analysis date : 2016-08-25

Checked and approved by :

Alexis St-Gelais, M. Sc., chimiste 2013-174

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IDENTIFIED COMPOUNDS

Identification	Column: BP5			Column: WAX			Molecular Class
	R.T.	R.I.	%	%	R.I.	R.T.	
Tricyclene	3.17	913	0.01	tr	928	0.79	Monoterpene
α -Thujene	3.25	918	0.78	0.85	955	0.90	Monoterpene
α -Pinene	3.36	925	1.89	1.74	948	0.87	Monoterpene
α -Fenchene	3.62	940	0.08	0.08	989	1.04	Monoterpene
Camphene	3.64	942	0.37	0.34	1000	1.08	Monoterpene
Sabinene	4.07	968	0.01	tr	1064	1.56	Monoterpene
β -Pinene	4.13	971	0.46	0.42	1040	1.37	Monoterpene
Myrcene	4.42	989	1.70	1.58	1117	2.00	Monoterpene
Octen-3-ol	4.52	995	0.10	0.09	1399	5.75	Aliphatic alcohol
Pseudolimonene	4.63	1001	0.10	0.10	1111	1.94	Monoterpene
Δ 3-Carene	4.69	1004	0.03	0.01	1089	1.76	Monoterpene
α -Terpinene	4.88	1015	0.81	0.84	1123	2.07	Monoterpene
para-Cymene	5.11	1028	12.97	12.88	1213	3.11	Monoterpene
Limonene	5.15	1030	0.01	0.02	1140	2.27	Monoterpene
β -Phellandrene	5.17	1031	0.10	0.07	1145	2.33*	Monoterpene
1,8-Cineole	5.25	1035	0.04	[0.07]	1145	2.33*	Monoterp. ether
<i>cis</i> - β -Ocimene	5.29	1038	0.02	6.96	1192	2.88*	Monoterpene
<i>trans</i> - β -Ocimene	5.47	1048	0.01				Monoterpene
γ -Terpinene	5.68	1059	7.14	[6.96]	1192	2.88*	Monoterpene
<i>cis</i> -Sabinene hydrate	6.01	1077	0.01	0.02	1408	5.88	Monoterp. alcohol
Terpinolene	6.12	1083	0.01	0.02	1236	3.45	Monoterpene
Fenchone	6.27	1091	0.04	0.02	1319	4.59	Monoterp. ketone
Linalool	6.68	1108	2.22	2.16	1494	7.45	Monoterp. alcohol
Borneol	8.58	1179	0.02	0.01	1620	10.89	Monoterp. alcohol
Terpinen-4-ol	8.69	1183	0.03	0.23	1535	8.34*	Monoterp. alcohol
Carvacrol methyl ether	10.81	1236	0.20	[0.23]	1535	8.34*	Monoterp. ether
Thymol	15.63	1328	3.67	3.67	2117	37.46	Monoterp. alcohol
Carvacrol	16.55	1342	64.94	66.01	2137	38.14	Monoterp. alcohol
β -Caryophyllene	20.33	1399	1.10	1.01	1528	8.15	Sesquiterpene
α -Humulene	23.07	1432	0.01				Sesquiterpene
β -Bisabolene	28.51	1498	0.03				Sesquiterpene
Caryophyllene oxide	33.53	1566	0.57	0.41	1858	23.32	Sesquiterp. ether
Total identified			99.48%	99.54%			

*: Two or more compounds are coeluting on this column

[xx]: Duplicate percentage due to coelutions, not taken account in the identified total

Note: no correction factor was applied

OTHER DATA

Physical aspect : Clear liquid

Refractive index : 1.5080 ± 0.0003 (20 °C)

CONCLUSION

No adulterant, contaminant or diluent were detected using this method.



