

## GC/MS BATCH NUMBER: O50101

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**ESSENTIAL OIL:** OREGANO ORGANIC  
**BOTANICAL NAME:** ORIGANUM VULGARE  
**ORIGIN:** HUNGARIAN

KEY CONSTITUENTS PRESENT IN THIS BATCH OF OREGANO ORGANIC OIL	%
CARVACROL	62.0
p-CYMENE	13.5
γ-TERPINENE	8.5
THYMOL	3.3
LINALOOL	2.3
β-CARYOPHYLLENE	2.0
MYRCENE	1.9
α-PINENE	1.9
α-TERPINENE	1.5

Comments from Robert Tisserand: This Oregano oil has a very good odor profile. The constituents are in expected amounts, and there is a substantial percentage of carvacrol, the most important therapeutic constituent.

**Date :** October 22, 2015

*SAMPLE IDENTIFICATION*

**Internal code :** 15J15-PTH6-1-LC

**Customer identification :** Oregano - Hungarian - O5010154

**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 :** Alexis St-Gelais, M. Sc.

**Analysis date :** 2015-10-16

IDENTIFIED COMPOUNDS

Identification	Column: BP5			Column: WAX			Molecular Class
	R.T.	R.I.	%	%	R.I.	R.T.	
Tricyclene	2.61	913	0.01	0.01	964	0.96	Monoterpene
α-Thujene	2.70	919	0.79	0.79	996	1.12	Monoterpene
α-Pinene	2.79	925	1.94	1.90	986	1.07	Monoterpene
Camphene	3.04*	941	0.49	0.41	1024	1.35	Monoterpene
α-Fenchene	3.04*	941	[0.49]	0.06	1018	1.29	Monoterpene
Sabinene	3.44	966	0.01	0.01	1083	1.87	Monoterpene
β-Pinene	3.50	970	0.49	0.46	1063	1.70	Monoterpene
Myrcene	3.81	990	1.94	1.71	1135	2.46	Monoterpene
Octen-3-ol	3.89	995	0.01	0.01	1423	6.69	Aliphatic alcohol
Pseudolimonene	3.99	1001	0.09	0.10	1129	2.38	Monoterpene
α-Phellandrene	4.04	1004	0.04	0.03	1126	2.34	Monoterpene
α-Terpinene	4.23	1015	1.53	1.44	1140	2.52	Monoterpene
Limonene	4.33	1021	0.12	0.04	1157	2.73	Monoterpene
para-Cymene	4.46	1028	13.52	13.47	1232	3.73	Monoterpene
1,8-Cineole	4.51	1031	0.10	0.08	1162	2.80	Monoterp. ether
cis-β-Ocimene	4.58	1035	0.02	8.26	1210	3.41*	Monoterpene
γ-Terpinene	5.01	1059	8.54	[8.26]	1210	3.41*	Monoterpene
Terpinolene	5.42	1083	0.01	0.01	1241	3.86	Monoterpene
Fenchone	5.55	1090	0.04	0.03	1339	5.31	Monoterp. ketone
para-Cymenene	5.63	1095	0.00	0.00	1389	6.06	Monoterpene
Linalool	5.91	1108	2.26	2.19	1516	8.82	Monoterp. alcohol
Borneol	7.33	1174	0.02	0.02	1635	13.21	Monoterp. alcohol
Terpinen-4-ol	7.48	1180	0.03	0.02	1544	9.74*	Monoterp. alcohol
trans-Dihydrocarvone	8.27	1210	0.02	[0.02]	1544	9.74*	Monoterp. ketone
Carvacrol methyl ether	9.24	1236	0.19	0.19	1551	9.96	Monoterp. ether
Thymol	12.60	1317	3.26	3.74	2133	39.97	Monoterp. alcohol
Carvacrol	13.50	1333	61.95	62.26	2157	40.62	Monoterp. alcohol
β-Caryophyllene	17.22	1398	1.97	1.89	1531	9.32	Sesquiterpene
β-Bisabolene	24.69	1497	0.02	0.01	1669	14.86	Sesquiterpene
Caryophyllene oxide	29.71	1557	0.23	0.20	1863	27.08	Sesquiterp. ether
<b>Total identified</b>			<b>99.64%</b>	<b>99.34%</b>			

\*: 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 :** Faintly yellow liquid

**Refractive index :** 1.5085 ± 0.0003 (20 °C)

## CONCLUSION

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

Checked and approved by :

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

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