



**PLANT THERAPY**  
100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: O40103

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

KEY CONSTITUENTS PRESENT IN THIS BATCH OF OIL	%
CARVACROL	63.9
p-CYMENE	13.9
γ-TERPINENE	7.1
THYMOL	3.6
LINALOOL	2.2
α-PINENE	1.9
MYRCENE	1.8
β-CARYOPHYLLENE	1.3
α-TERPINENE	1.1

Comments from Robert Tisserand: Characteristic green, spicy odor profile, with constituents in expected amounts.

**Date :** October 21, 2016

*SAMPLE IDENTIFICATION*

**Internal code :** 16J19-PTH7-1-DM

**Customer identification :** Oregano - O4010359R

**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 :** 2016-10-20

Checked and approved by :

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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	3.16	912	0.01	0.01	922	0.76	Monoterpene
$\alpha$ -Thujene	3.24	918	0.81	0.96	948	0.87	Monoterpene
$\alpha$ -Pinene	3.35	924	1.86	1.66	941	0.84	Monoterpene
Camphene	3.63	941	0.41	0.38	990	1.04	Monoterpene
Sabinene	4.06	967	0.01	0.01	1050	1.45	Monoterpene
$\beta$ -Pinene	4.12	971	0.46	0.41	1034	1.32	Monoterpene
Myrcene	4.41	988	1.81	1.69	1110	1.93	Monoterpene
Octen-3-ol	4.49	993	0.12	0.12	1393	5.64	Aliphatic alcohol
Pseudolimonene	4.62	1001	0.08	0.09	1103	1.88	Monoterpene
$\alpha$ -Terpinene	4.87	1014	1.12	1.16	1117	2.01*	Monoterpene
meta-Cymene	4.97	1020	0.12	[1.16]	1117	2.01*	Monoterpene
para-Cymene	5.10	1027	13.90	13.83	1206	3.03*	Monoterpene
Limonene	5.16	1031	0.04	0.03	1134	2.21	Monoterpene
1,8-Cineole	5.23	1035	0.02	0.05	1139	2.26	Monoterp. ether
cis- $\beta$ -Ocimene	5.28	1037	0.02	6.94	1185	2.80*	Monoterpene
trans- $\beta$ -Ocimene	5.46	1047	0.01	[13.83]	1206	3.03*	Monoterpene
$\gamma$ -Terpinene	5.67	1059	7.12	[6.94]	1185	2.80*	Monoterpene
cis-Sabinene hydrate	5.99	1076	0.01	0.01	1401	5.78	Monoterp. alcohol
Fenchone	6.26	1090	0.05	0.03	1312	4.49	Monoterp. ketone
Linalool	6.65	1107	2.17	2.15	1486	7.29	Monoterp. alcohol
Borneol	8.55	1178	0.02	0.02	1611	10.60	Monoterp. alcohol
Terpinen-4-ol	8.66	1182	0.03	0.21	1528	8.15	Monoterp. alcohol
Carvacrol methyl ether	10.78	1235	0.17	1.17	1522	7.98*	Monoterp. ether
Thymol	15.46	1326	3.62	3.66	2105	37.07	Monoterp. alcohol
Carvacrol	16.37	1340	63.94	64.69	2126	37.77	Monoterp. alcohol
$\beta$ -Caryophyllene	20.27	1399	1.27	[1.17]	1522	7.98*	Sesquiterpene
Caryophyllene oxide	33.46	1565	0.29	0.16	1849	22.67	Sesquiterp. ether
<b>Total identified</b>			<b>99.49%</b>	<b>99.44%</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 :** Clear liquid

**Refractive index :** 1.5090  $\pm$  0.0003 (20 °C)

CONCLUSION

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



