



## GC/MS BATCH NUMBER: O40101

---

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

KEY CONSTITUENTS PRESENT IN THIS BATCH OF OREGANO OIL	%
CARVACROL	80.4
THYMOL	6.6
p-CYMENE	4.3
1,8-CINEOLE	1.4
LINALOOL	1.3

Comments from Robert Tisserand: A high carvacrol oregano oil with no trace markers for synthetic additions, and a correspondingly potent odor profile.

**Date :** August 19, 2015

*SAMPLE IDENTIFICATION*

**Internal code :** 15H10-PTH7-1-HM

**Customer identification :** Oregano - Turkey – O4010147

**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 :** Hubert Marceau, B. Sc.

**Analysis date :** 2015-08-12

IDENTIFIED COMPOUNDS

Identification	Colonne: BP5			Colonne: WAX			Molecular Class
	R.T.	R.I.	%	%	R.I.	R.T.	
Tricyclene	2.62	914	0.00	0.00	961	0.95	Monoterpene
α-Thujene	2.71	920	0.07	0.07	993	1.10	Monoterpene
α-Pinene	2.80	925	0.24	0.24	981	1.05	Monoterpene
Camphene	3.06	942	0.15	0.14	1022	1.33	Monoterpene
β-Pinene	3.52	971	0.07	0.07	1061	1.67	Monoterpene
Myrcene	3.82	991	0.44	0.43	1133	2.43	Monoterpene
Octen-3-ol	3.87	993	0.06	0.05	1419	6.61	Aliphatic alcohol
Octan-3-ol	4.06	1005	0.09	0.11	1366	5.70	Aliphatic alcohol
α-Terpinene	4.24	1016	0.25	0.24	1137	2.49	Monoterpene
para-Cymene	4.46*	1028	4.47	4.27	1229	3.68	Monoterpene
Limonene	4.46*	1028	[4.47]	0.14	1155	2.70	Monoterpene
1,8-Cineole	4.52	1031	1.38	1.32	1162	2.79	Monoterp. ether
trans-β-Ocimene	4.84	1049	0.01	0.02	1219	3.55	Monoterpene
γ-Terpinene	5.00	1059	0.81	0.81	1205	3.34	Monoterpene
cis-Sabinene hydrate	5.33	1078	0.01	0.02	1423	6.71	Monoterp. alcohol
Terpinolene	5.45	1084	0.04	0.03	1238	3.82	Monoterpene
Linalool	5.93*	1110	1.42	1.30	1517	8.86	Monoterp. alcohol
trans-Sabinene hydrate	5.93*	1110	[1.42]	0.01	1504	8.44	Monoterp. alcohol
Camphor	6.70	1145	0.03	0.01	1434	6.93	Monoterp. ketone
Isoborneol	7.13	1164	0.23	0.25	1607	11.92	Monoterp. alcohol
Borneol	7.39	1176	0.49	0.54	1637	13.30	Monoterp. alcohol
Terpinen-4-ol	7.54	1183	0.23	0.18	1545	9.77	Monoterp. alcohol
α-Terpineol	8.44	1214	0.17	0.23	1641	13.52	Monoterp. alcohol
Thymol methyl ether	9.04	1230	0.10	0.10	1542	9.68	Monoterp. ether
Thymol	12.79	1321	6.63	7.38	2137	40.08	Monoterp. alcohol
Carvacrol	13.76	1338	80.40	79.09	2162	40.77	Monoterp. alcohol
α-Terpinyl acetate	13.88	1340	0.04	0.01	1631	13.02	Monoterp. ester
β-Caryophyllene	17.35	1400	0.87	0.87	1527	9.16	Sesquiterpene
trans-α-Bergamotene	18.54	1416	0.13	0.15	1533	9.39	Sesquiterpene
α-Humulene	19.80	1433	0.38	0.43	1592	11.30	Sesquiterpene
β-Bisabolene	24.88	1499	0.15	0.16	1665	14.65	Sesquiterpene
Caryophyllene oxide	29.92	1560	0.11	0.10	1863	27.10	Sesquiterp. ether
<b>Total identified</b>			<b>99.47%</b>	<b>98.77%</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 :** Light yellow liquid

**Refractive index :**  $1.5153 \pm 0.0003$  (20 °C)

*CONCLUSION*

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

Checked and approved by :

---

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

*Note: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.*



