



Essential Oil University

GC/MS Report

Item	Lot
Catnip EO	0Q
<i>Nepeta cataria</i>	
Date	Analyst
7/11/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Catnip EO, meets the expected chemical profile for authentic essential oil of *Nepeta cataria*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.



Sample Information

Company: Revive**Sample Name:** Catnip EO**Botanical Name:** Nepeta cataria**Lot Number:** 0Q**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Canada**Analysis Date:** 7/11/2025**Manufacture Date:** November 2023

GC/MS

Inst. ID: Shimadzu GCMS-QP2010Ultra**Injection Type:** Split**Split Ratio:** 24.4**Column Type:** ZB-5**Injection Volume:** 0.1 µL**Temperature Program:** 2C/min

Physical Data

ANALYSIS

Optical Rotation @20°C

Refractive Index @20°C

Specific Gravity @20°C

METHOD

USP[781]

USP[831]

USP[841]

RESULTS

-10.88

1.48944

1.04939



Ret. Time	Component	Ret. Idx.	Conc. %	
4.202	3-Methylbutanal	672	0.02%	
4.315	2-Methylbutanal	677	0.03%	
4.766	2-Ethylfuran	696	0.08%	
6.357	Methyl 2-methylbutyrate	764	0.04%	
7.026	Octane	793	0.01%	
7.076	Hexanal	795	0.01%	
7.877	trans,trans-1,3,6-Octatriene	817	0.02%	
8.961	Hex-(2Z)-enal	844	0.08%	
10.639	Styrene	885	0.05%	
12.370	alpha-Thujene	920	0.02%	
12.788	alpha-Pinene	927	0.12%	
14.999	Sabinene	966	0.08%	
15.312	beta-Pinene	972	0.89%	
15.696	3-Octanone	978	0.02%	
15.972	2-Pentyl furan	983	0.03%	
17.693	alpha-Terpinene	1012	0.05%	
18.178	para-Cymene	1019	0.02%	
18.484	Limonene	1023	0.06%	IFRA
18.877	cis-beta-Ocimene	1029	0.1%	
19.572	trans-beta-Ocimene	1040	0.3%	
20.379	gamma-Terpinene	1052	0.05%	
22.207	Terpinolene	1079	0.01%	
23.158	Linalool	1094	0.04%	IFRA
23.519	Nonanal	1099	0.02%	
28.781	Terpinen-4-ol	1174	0.02%	
29.181	Dill Ether	1180	0.01%	
29.411	Unidentified	1183	0.02%	
29.531	Unidentified	1185	0.1%	
29.775	Unidentified	1189	0.02%	
29.985	cis-Dihydrocarvone	1192	0.02%	
30.161	Unidentified	1194	0.01%	
31.087	Unidentified	1208	0.82%	
31.413	beta-Cyclocitral	1212	0.02%	
33.112	Carvone	1237	0.12%	IFRA
34.243	Unidentified	1253	0.02%	
34.735	Geranial	1261	0.02%	IFRA
36.036	Unidentified	1279	0.21%	
37.035	Tridecane	1294	0.03%	
40.401	Unidentified	1345	0.06%	
40.706	Unidentified	1349	0.05%	



Ret. Time	Component	Ret. Idx.	Conc. %
41.089	cis,trans-Nepetalactone	1355	23.28%
41.316	Nepetalactone analogue	1359	0.14%
41.647	Nepetalactone analogue	1364	0.01%
42.167	Unidentified	1371	0.03%
42.548	cis-3-Hexenyl-cis-3-hexenoate	1377	0.12%
42.710	Unidentified	1380	0.01%
43.169	cis,cis-Nepetalactone	1387	50.8%
43.378	Nepetalactone analogue	1390	2.04%
43.873	cis-beta-Caryophyllene	1397	0.38%
44.298	Unidentified	1404	0.02%
44.622	Unidentified	1409	0.11%
44.831	beta-Caryophyllene	1412	6.15%
45.439	Unidentified	1422	0.03%
46.043	Unidentified	1432	1.54%
46.185	Unidentified	1434	0.05%
46.320	Unidentified	1436	0.01%
46.663	Humulene isomer	1441	0.02%
46.869	trans-beta-Farnesene	1445	0.37%
47.056	alpha-Humulene	1448	0.61%
47.416	Octadecane	1453	0.08%
47.852	Unidentified	1460	0.03%
48.102	Unidentified	1464	0.09%
48.235	Unidentified	1467	0.01%
48.421	trans-beta-Ionone	1469	0.02%
48.927	Unidentified	1478	0.22%
50.030	Dehydromenthofurolactone	1495	0.06%
50.712	delta-Cadinene	1506	0.02%
50.902	delta-Amorphene	1509	0.01%
51.610	Nepetic acid	1521	1.98%
52.866	Unidentified	1542	0.02%
54.020	Hex-(3Z)-enyl benzoate	1562	0.03%
54.694	Caryophyllene oxide	1573	0.98%
56.311	Humulene epoxide II	1600	0.06%
59.147	Unidentified	1650	0.02%
59.804	Unidentified	1662	0.02%
63.373	Unidentified	1726	0.01%
63.705	Unidentified	1732	0.02%
64.911	Unidentified	1755	0.02%
66.734	Nepetalic acid isomer	1789	0.74%
66.907	Unidentified + Unidentified	1792	0.26%



Ret. Time	Component	Ret. Idx.	Conc. %	
67.264	Nepetalic acid isomer	1798	3.32%	
67.494	Unidentified	1803	0.63%	
67.645	Unidentified	1806	0.01%	
68.041	Nepetalic acid isomer	1813	0.13%	
68.354	Unidentified	1820	0.03%	
68.711	Nepetalic acid isomer	1827	0.05%	
68.887	Phytone	1830	0.15%	
69.431	Unidentified	1841	0.11%	
70.872	Unidentified	1869	0.06%	
71.415	Nepetalic acid isomer	1879	0.07%	
72.793	Unidentified	1906	0.02%	
74.824	Unidentified isomer I	1948	0.43%	
74.969	Unidentified isomer I	1951	0.05%	
76.502	Unidentified	1982	0.01%	
77.534	Unidentified	2004	0.03%	
77.853	Unidentified isomer II	2011	0.06%	
78.823	Unidentified isomer II	2031	0.02%	
79.433	Unidentified isomer III	2044	0.05%	
79.921	Unidentified isomer III	2055	0.23%	
83.304	Unidentified isomer IV	2128	0.05%	
83.621	Unidentified	2135	0.02%	
84.984	Unidentified isomer IV	2166	0.04%	
86.588	Unidentified	2202	0.02%	
91.522	Unidentified	2318	0.03%	
92.059	Unidentified	2331	0.04%	
95.927	Unidentified isomer V	2425	0.04%	
98.338	Unidentified	2486	0.05%	
99.629	Unidentified isomer V	2520	0.01%	
101.968	Unidentified isomer V	2581	0.04%	
103.042	Unidentified isomer V	2610	0.01%	
103.906	Unidentified isomer V	2633	0.03%	
104.121	Unidentified isomer V	2639	0.05%	

Total Identified Compounds **94.01 %**

