



Essential Oil University

GC/MS Report

Item	Lot
Geranium Rose EO <i>Pelargonium roseum</i>	0H
Date	Analyst
8/29/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Geranium Rose EO, meets the expected chemical profile for authentic essential oil of *Pelargonium roseum*. 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:** Geranium Rose EO**Botanical Name:** Pelargonium roseum**Lot Number:** 0H**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Madagascar**Analysis Date:** 8/29/2025**Manufacture Date:** August 2025

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

-9.16

1.46550

0.89481



Ret. Time	Component	Ret. Idx.	Conc. %	
3.763	2-Methyl 3-buten-2-ol	584	0.01%	
8.113	Unidentified	826	0.03%	
8.659	3-Methylpentanol	839	0.03%	
10.985	Unidentified	897	0.02%	
12.298	Tricyclene	921	0.01%	
12.870	alpha-Pinene	931	0.51%	
14.917	Bois de Rose oxide	968	0.03%	
15.419	beta-Pinene	976	0.02%	
15.731	6-Methyl hept-5-en-2-one	982	0.05%	
15.871	Unidentified	984	0.02%	
16.031	Myrcene	987	0.17%	
16.090	Unidentified	988	0.03%	
16.427	Unidentified	994	0.02%	
17.034	cis-dehydro-Linalool oxide	1004	0.03%	
17.125	alpha-Phellandrene	1006	0.06%	
18.270	para-Cymene	1023	0.08%	
18.577	Limonene	1027	0.16%	IFRA
18.688	beta-Phellandrene	1029	0.04%	
18.785	1,8-Cineole	1031	0.04%	
18.970	cis-beta-Ocimene	1033	0.13%	
19.670	trans-beta-Ocimene	1044	0.12%	
21.309	cis-Linalool oxide (furanoid)	1069	0.18%	
22.345	Terpinolene	1084	0.03%	
22.391	trans-Linalool oxide (furanoid)	1085	0.1%	
23.285	Linalool	1098	7.23%	IFRA
23.425	Unidentified	1100	0.02%	
23.491	6-Methyl heptadi-3,5-en-2-one	1101	0.04%	IFRA
23.993	cis-Rose oxide	1109	1.37%	
25.120	trans-Rose oxide	1125	0.57%	
26.678	trans-Chrysanthemal	1147	0.05%	
26.909	Citronellal	1150	0.06%	IFRA
27.204	Menthone	1155	2.12%	
27.370	Unidentified	1157	0.04%	
27.833	Isomenthone	1164	5.19%	
29.477	Menthol	1187	0.1%	
29.916	alpha-Terpineol	1194	0.32%	
31.315	Unidentified	1214	0.03%	
31.893	Nerol	1222	0.44%	
32.118	Citronellol	1226	24.93%	IFRA
32.851	Neral	1236	0.25%	IFRA



Ret. Time	Component	Ret. Idx.	Conc. %	
33.704	Geraniol	1249	12.6%	IFRA
33.858	Unidentified	1251	0.1%	
33.939	Piperitone	1252	0.08%	
34.319	Neomenthyl acetate	1258	0.06%	
34.610	trans-Myrtanol	1262	0.17%	
34.866	Geranial	1266	0.55%	IFRA
35.261	Citronellyl formate	1271	11.44%	
35.456	Neryl formate	1274	0.3%	
36.934	Geranyl formate	1296	6.5%	
37.543	Unidentified	1305	0.07%	
40.208	alpha-Cubebene	1345	0.06%	
40.335	Citronellyl acetate	1347	0.43%	IFRA
41.679	Unidentified	1368	0.03%	
42.096	alpha-Copaene	1374	0.32%	
42.202	Geranyl acetate	1376	0.42%	
42.620	beta-Bourbonene	1382	0.94%	
42.822	alpha-Bourbonene	1385	0.06%	
42.973	beta-Elemene	1387	0.14%	
43.177	Phenethyl isobutyrate	1391	0.07%	
44.125	Unidentified	1405	0.02%	
44.915	beta-Caryophyllene	1418	1%	
45.559	beta-Copaene	1428	0.08%	
45.750	trans-alpha-Bergamotene	1431	0.14%	
45.893	alpha-Guaiene	1433	0.49%	
46.145	Citronellyl propionate	1437	0.57%	
46.285	6,9-Guaiadiene	1440	6.01%	
46.473	Isogermacrene D	1443	0.09%	
46.645	Neryl propionate	1445	0.07%	
46.768	Unidentified	1447	0.45%	
47.173	alpha-Humulene	1454	0.22%	
47.445	Alloaromodendrene	1458	0.09%	
47.786	Unidentified	1464	0.07%	
47.969	Geranyl propanoate	1466	1.2%	
48.187	trans-Cadina-1(6),4-diene	1470	0.1%	
48.354	gamma-Muurolene	1473	0.11%	
48.640	Unidentified	1477	0.12%	
48.753	Germacrene D	1479	0.5%	
48.975	Unidentified	1483	0.15%	
49.258	beta-Selinene	1487	0.21%	
49.448	trans-Muurolo-4(14),5-diene	1490	0.05%	



Ret. Time	Component	Ret. Idx.	Conc. %	
49.679	alpha-Selinene	1494	0.11%	
49.839	alpha-Murolene	1496	0.16%	
50.030	Unidentified	1499	0.02%	
50.168	Unidentified	1502	0.09%	
50.363	Geranyl isobutyrate	1505	0.38%	
50.711	gamma-Cadinene	1511	0.14%	
51.011	delta-Cadinene	1516	0.5%	
51.213	cis-Calamenene	1519	0.19%	
51.300	Zonarene	1521	0.09%	
51.406	Citronellyl butyrate	1522	0.69%	
51.650	Unidentified	1527	0.22%	
51.860	trans-Cadina-1,4-diene	1530	0.16%	
51.993	Phenylethyl tiglate isomer	1532	0.05%	
52.136	Selina-4(15),7(11)-diene	1535	0.05%	
52.385	alpha-Calacorene	1539	0.04%	
53.140	Unidentified	1552	0.05%	
53.228	Geranyl butyrate	1553	1.19%	
53.413	Unidentified	1556	0.04%	
53.968	Unidentified	1566	0.09%	
54.603	Unidentified	1576	0.46%	
54.829	2-Phenylethyl tiglate	1580	0.72%	
55.261	Unidentified	1587	0.02%	
55.652	Geranyl 2-methylbutyrate	1594	0.49%	
55.735	Unidentified	1595	0.07%	
56.091	Geranyl isovalerate	1601	0.08%	
56.427	Humulene epoxide II	1607	0.03%	
56.621	Unidentified	1611	0.03%	
56.743	1,10-di-epi-Cubenol	1613	0.13%	
57.046	Unidentified	1618	0.04%	
57.163	Unidentified	1620	0.09%	
57.451	Epicubenol	1625	0.1%	
58.312	Unidentified	1641	0.16%	
58.812	Unidentified	1650	0.06%	
58.993	Unidentified	1653	0.1%	
59.172	Unidentified	1656	0.03%	
59.347	trans-Citronellyl tiglate	1659	0.3%	
60.472	Unidentified	1679	0.1%	
61.024	Unidentified	1689	0.05%	
61.247	Geranyl tiglate	1693	1.56%	
62.220	Neryl hexanoate	1710	0.16%	



Ret. Time	Component	Ret. Idx.	Conc. %	
62.395	Citronellyl hexanoate	1714	0.04%	
64.135	Geranyl hexanoate	1746	0.06%	
69.236	Unidentified	1843	0.03%	
72.513	Unidentified	1908	0.03%	
74.116	Geranyl octanoate	1941	0.03%	
76.124	Unidentified	1982	0.03%	

Total Identified Compounds **96.99 %**



TIC
9,047,008

