



Essential Oil University

GC/MS Report

Item	Lot
Copaiba Balsam EO <i>Copaifera langsdorffii</i>	7B
Date	Analyst
5/8/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Copaiba Balsam EO, meets the expected chemical profile for authentic essential oil of *Copaifera langsdorffii*. 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:** Copaiba Balsam EO**Botanical Name:** *Copaifera langsdorffii***Lot Number:** 7B**Production Method:** Extrusion**Sample Type:** EO - Single**Country of Origin:** Brazil**Analysis Date:** 5/8/2025**Manufacture Date:** April 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

-13.12

1.50538

0.93213



Ret. Time	Component	Ret. Idx.	Conc. %	
18.105	(2E,4E)-3,7-Dimethyl-2,4-octadiene analogue	1018	0.01%	
18.876	cis-beta-Ocimene	1029	0.07%	
25.101	allo-Ocimene	1122	0.01%	
39.088	Elemene isomer	1325	0.04%	
39.309	delta-Elemene	1328	0.4%	
40.089	alpha-Cubebene	1340	0.56%	
40.291	Eugenol	1343	0.18%	IFRA
41.552	alpha-Ylangene	1362	0.11%	
41.988	alpha-Copaene	1369	4.54%	
42.105	Unidentified	1370	0.01%	
42.381	Elemene isomer	1375	0.03%	
42.502	Unidentified	1376	0.03%	
42.769	beta-Cubebene	1381	0.36%	
42.868	beta-Elemene	1382	1.62%	
43.181	delta-Cadinene	1387	0.02%	
43.756	Cyperene	1395	0.28%	
43.845	cis-beta-Caryophyllene	1397	0.06%	
44.019	beta-Maaliene	1399	0.03%	
44.298	Unidentified	1404	0.03%	
44.452	cis-alpha-Bergamotene	1406	0.07%	
44.585	Unidentified	1408	0.01%	
44.948	beta-Caryophyllene	1414	52.13%	
45.035	Unidentified	1416	0.03%	
45.401	gamma-Elemene	1421	1.61%	
45.651	trans-alpha-Bergamotene	1425	3.78%	
46.112	cis-beta-Farnesene	1433	0.2%	
46.315	Unidentified	1436	0.05%	
46.524	epi-beta-Santalene	1439	0.07%	
46.651	cis-Murrola-3,5-diene	1441	0.06%	
46.761	Unidentified	1443	0.03%	
46.868	trans-beta-Farnesene	1445	0.21%	
47.066	alpha-Humulene	1448	4.6%	
47.160	Unidentified	1449	0.04%	
47.326	Alloaromodendrene	1452	0.36%	
47.449	cis-Muurolo-4(14),5-diene	1454	0.04%	
47.735	Unidentified	1459	0.02%	
47.797	Unidentified	1460	0.05%	
47.956	Unidentified	1462	0.01%	
48.077	trans-Murrola-4(14),5-diene	1464	0.13%	
48.261	gamma-Muurolo-4(14),5-diene	1467	1.36%	



Ret. Time	Component	Ret. Idx.	Conc. %
48.421	gamma-Curcumene	1469	0.09%
48.535	Drima-7,9(11)-diene	1471	0.13%
48.656	Germacrene D	1473	6.63%
48.815	trans-beta-Bergamotene	1476	0.43%
49.007	delta-Selinene	1479	0.06%
49.137	beta-Selinene	1481	0.8%
49.290	Viridiflorene	1483	0.09%
49.340	trans-Murrola-4(14),5-diene	1484	0.24%
49.547	Bicyclogermacrene	1487	1.13%
49.712	alpha-Muurolene	1490	0.47%
49.835	alpha-Bisabolene	1492	0.26%
49.984	Cadinene isomer	1494	0.13%
50.050	Unidentified	1495	0.06%
50.287	beta-Bisabolene	1499	2.69%
50.469	cis-gamma-Bisabolene	1502	0.14%
50.596	gamma-Cadinene	1504	0.57%
50.743	Unidentified	1507	0.09%
50.907	delta-Cadinene	1510	2.41%
51.094	cis-Calamenene	1513	0.05%
51.233	beta-Sesquiphellandrene	1515	0.39%
51.412	trans-gamma-Bisabolene	1518	0.04%
51.752	trans-Cadina-1,4-diene	1524	0.15%
52.017	Selina-4(15),7(11)-diene	1528	0.28%
52.232	trans-alpha-Bisabolene	1532	0.38%
52.290	Selina-3,7(11)-diene	1533	0.12%
53.331	Germacrene B	1550	2.23%
53.503	Unidentified	1553	0.03%
53.958	Unidentified	1561	0.08%
54.308	Caryophyllene alcohol	1567	0.27%
54.684	Caryophyllene oxide	1573	0.13%
54.897	Globulol	1576	0.08%
55.153	Viridiflorol	1581	0.01%
55.406	Unidentified	1585	0.08%
55.540	Guaiol	1587	0.05%
55.883	Unidentified	1593	0.02%
56.008	Ledol	1595	0.07%
56.137	Rosifoliol	1597	0.02%
56.235	Unidentified	1599	0.01%
56.314	Unidentified	1600	0.02%
56.616	1,10-di-epi-Cubenol	1606	0.03%



Ret. Time	Component	Ret. Idx.	Conc. %	
56.743	Unidentified	1608	0.01%	
56.944	Unidentified	1611	0.08%	
57.033	Humulane-1,6-dien-3-ol	1613	0.57%	
57.220	Unidentified	1616	0.01%	
57.326	Epicubenol	1618	0.12%	
57.555	Unidentified	1622	0.02%	
57.682	Unidentified	1624	0.09%	
57.859	alpha-Acorenol	1628	0.02%	
57.970	Unidentified	1629	0.01%	
58.127	epi-alpha-Cadinol	1632	0.17%	
58.232	epi-alpha-Muurolol	1634	0.41%	
58.380	delta-Cadinol	1637	0.42%	
58.533	Unidentified	1639	0.01%	
58.874	alpha-Cadinol	1645	0.67%	
59.044	Unidentified	1648	0.11%	
59.423	Unidentified	1655	0.02%	
59.506	Unidentified	1657	0.02%	
59.691	Unidentified	1660	0.07%	
59.785	Unidentified	1661	0.1%	
59.965	Unidentified	1665	0.01%	
60.560	epi-alpha-Bisabolol	1675	0.03%	IFRA
60.684	alpha-Bisabolol	1677	0.03%	IFRA
61.255	Unidentified	1687	0.33%	
67.760	Unidentified	1808	0.01%	
68.159	Unidentified	1816	0.01%	
74.133	Unidentified	1934	0.01%	
74.286	Unidentified	1937	0.02%	
74.621	Phenylethyl salicylate	1944	0.01%	
74.752	Unidentified	1947	0.01%	
75.411	Unidentified	1960	0.1%	
75.669	Unidentified	1965	0.04%	
77.491	Unidentified	2003	0.01%	
78.419	Unidentified	2023	0.04%	
78.865	Unidentified	2032	0.01%	
78.945	Unidentified	2034	0.03%	
79.183	Manool	2039	0.06%	
79.713	Unidentified	2050	0.67%	
85.660	Unidentified	2181	0.04%	
86.195	Unidentified	2193	0.01%	
86.348	Unidentified	2196	0.01%	



Ret. Time	Component	Ret. Idx.	Conc. %	
87.139	Unidentified	2215	0.03%	
87.744	Unidentified	2229	0.03%	
88.499	Unidentified	2246	0.01%	
88.639	Unidentified	2250	0.03%	
88.954	Unidentified	2257	0.43%	
90.161	Unidentified	2285	0.02%	
90.266	Methyl copalate	2288	0.08%	
91.200	Unidentified	2310	0.01%	
91.486	Copalol	2317	0.12%	
91.675	Unidentified	2321	0.01%	
92.061	Unidentified isomer I	2331	0.13%	
92.629	Unidentified isomer I	2344	0.01%	
92.980	Unidentified isomer I	2353	0.02%	
93.707	Unidentified isomer I	2371	0.07%	
95.049	Unidentified	2403	0.08%	
97.526	Unidentified	2466	0.08%	
99.227	Unidentified	2509	0.02%	
100.359	Unidentified	2539	0.01%	
102.940	Unidentified	2607	0.01%	
103.630	Unidentified	2626	0.03%	
105.753	Unidentified	2683	0.12%	

Total Identified Compounds **96.22 %**

