



Essential Oil University

GC/MS Report

Item	Lot
Copaiba Balsam EO <i>Copaifera langsdorffii</i>	2D
Date	Analyst
1/17/2025	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:** 2D**Production Method:** Steam Distilled**Sample Type:** EO - Single**Country of Origin:** Brazil**Analysis Date:** 1/17/2025**Manufacture Date:** August 2024

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

-12.88

1.49934

0.92267



Ret. Time	Component	Ret. Idx.	Conc. %
17.277	para-Menth-1-ene	1023	0.01%
18.041	cis-beta-Ocimene	1035	0.08%
24.163	allo-Ocimene	1127	0.01%
37.972	Elemene isomer	1331	0.03%
38.196	delta-Elemene	1334	0.31%
38.969	alpha-Cubebene	1346	0.32%
40.412	alpha-Ylangene	1368	0.05%
40.842	alpha-Copaene	1375	3.7%
41.628	beta-Cubebene	1387	0.27%
41.736	beta-Elemene	1388	0.74%
42.038	Unidentified	1393	0.01%
42.582	Cyperene	1401	0.22%
42.688	cis-beta-Caryophyllene	1403	0.09%
42.854	alpha-Gurjunene	1406	0.02%
43.292	cis-alpha-Bergamotene	1413	0.08%
43.755	trans-beta-Caryophyllene	1420	68.62%
43.993	Unidentified	1424	0.06%
44.170	Unidentified	1427	0.05%
44.259	gamma-Elemene	1428	0.54%
44.504	trans-alpha-Bergamotene	1432	4.87%
44.814	Aromadendrene	1437	0.03%
44.968	cis-beta-Farnesene	1440	0.21%
45.120	Unidentified	1442	0.04%
45.367	epi-beta-Santalene	1446	0.07%
45.481	trans-Murrola-3,5-diene	1448	0.03%
45.615	Unidentified	1450	0.01%
45.741	trans-beta-Farnesene	1452	0.15%
45.886	alpha-Humulene	1454	4.8%
46.012	Sesquisabinene	1456	0.01%
46.148	Alloaromadendrene	1458	0.2%
46.290	cis-Muurolo-4(14),5-diene	1461	0.01%
46.604	Unidentified	1466	0.04%
46.907	trans-Cadina-1(6),4-diene	1471	0.07%
47.093	gamma-Muurolene	1474	1.01%
47.267	gamma-Curcumene	1476	0.07%
47.370	alpha-Amorphene	1478	0.06%
47.470	Germacrene D	1480	3.65%
47.646	trans-beta-Bergamotene	1482	0.44%
47.834	delta-Selinene	1485	0.03%
47.952	beta-Selinene	1487	0.22%



Ret. Time	Component	Ret. Idx.	Conc. %	
48.095	Viridiflorene	1490	0.06%	
48.165	trans-Murrola-4(14),5-diene	1491	0.1%	
48.351	Bicyclogermacrene	1494	0.54%	
48.549	alpha-Muurolene	1497	0.28%	
48.687	alpha-Bisabolene	1499	0.17%	
48.809	delta-Amorphene	1501	0.05%	
48.916	Unidentified	1503	0.07%	
49.126	beta-Bisabolene	1507	1.65%	
49.301	cis-gamma-Bisabolene	1509	0.23%	
49.423	gamma-Cadinene	1512	0.28%	
49.540	Cadinene isomer	1514	0.03%	
49.734	delta-Cadinene	1517	1.37%	
49.960	cis-Calamenene	1521	0.03%	
50.076	beta-Sesquiphellandrene	1523	0.36%	
50.242	trans-gamma-Bisabolene	1525	0.05%	
50.570	trans-Cadina-1,4-diene	1531	0.06%	
50.827	alpha-Cadinene	1535	0.09%	
51.072	trans-alpha-Bisabolene	1539	0.27%	
51.239	Unidentified	1542	0.02%	
52.116	Germacrene B	1557	0.7%	
52.748	Unidentified	1568	0.03%	
53.100	Caryophyllene alcohol	1574	0.26%	
53.474	Caryophyllene oxide	1580	0.1%	
53.699	Globulol	1584	0.02%	
54.203	Viridiflorol	1592	0.03%	
54.800	Ledol	1603	0.04%	
55.720	Unidentified	1619	0.05%	
55.810	Humulane-1,6-dien-3-ol	1621	0.22%	
56.129	1-Epicubenol	1626	0.05%	
56.521	Unidentified	1633	0.07%	
56.936	tau-Cadinol	1641	0.08%	
57.036	epi-alpha-Cadinol	1642	0.16%	
57.185	delta-Cadinol	1645	0.3%	
57.360	Unidentified	1648	0.01%	
57.676	alpha-Cadinol	1654	0.28%	
57.835	Unidentified	1657	0.04%	
58.505	Unidentified	1668	0.02%	
58.602	Unidentified	1670	0.03%	
59.369	epi-alpha-Bisabolol	1684	0.02%	IFRA
59.492	alpha-Bisabolol	1686	0.02%	IFRA



Ret. Time	Component	Ret. Idx.	Conc. %	
60.033	Juniper camphor	1696	0.1%	
74.133	Kolavelool	1971	0.05%	
74.372	Unidentified	1975	0.02%	
77.113	Unidentified	2033	0.01%	
77.873	Manool	2050	0.04%	
78.406	Unidentified	2061	0.18%	
84.343	Unidentified	2193	0.01%	
87.654	Unidentified	2270	0.03%	
88.924	Unidentified	2300	0.01%	
90.086	Copalol	2329	0.05%	
90.720	Unidentified	2344	0.04%	
96.091	Unidentified	2479	0.01%	

Total Identified Compounds **99.16 %**

