



Essential Oil University

GC/MS Report

Item	Lot
Amyris EO <i>Amyris balsamifera</i>	BE20BC
Date	Analyst
3/11/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Amyris EO, meets the expected chemical profile for authentic essential oil of *Amyris balsamifera*. 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: Edens Garden**Sample Name:** Amyris EO**Botanical Name:** Amyris balsamifera**Lot Number:** BE20BC**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Haiti**Analysis Date:** 3/11/2025**Manufacture Date:** March 2023

GC/MS

Inst. ID: Shimadzu GCMS-QP2010Ultra**Injection Type:** Split**Split Ratio:** 24.4**Column Type:** ZB-5**Injection Volume:** 0.1 μ L**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

+38.40

1.50637

0.96582



Ret. Time	Component	Ret. Idx.	Conc. %	
22.855	Linalool	1094	0.02%	IFRA
25.760	Unidentified	1136	0.01%	
40.285	Unidentified	1348	0.04%	
40.869	Unidentified	1357	0.01%	
41.278	Unidentified	1364	0.01%	
41.600	alpha-Copaene	1368	0.01%	
42.318	Unidentified	1379	0.02%	
42.490	beta-Elemene	1382	0.06%	
42.695	Unidentified	1385	0.01%	
42.966	Unidentified	1389	0.01%	
43.330	Unidentified	1395	0.01%	
43.398	Unidentified	1396	0.02%	
43.697	Elemene analogue	1400	0.01%	
44.384	alpha-Santalene + beta-Caryophyllene	1411	0.77%	
44.660	Unidentified	1416	0.03%	
44.774	Unidentified	1417	0.03%	
44.915	Unidentified	1420	0.01%	
45.016	gamma-Elemene	1421	0.01%	
45.255	trans-alpha-Bergamotene	1425	0.1%	
45.374	Unidentified	1427	0.15%	
45.845	Unidentified	1435	0.01%	
45.900	Unidentified	1435	0.03%	
46.065	Unidentified	1438	0.03%	
46.139	epi-beta-Santalene	1439	0.07%	
46.283	Amorpha-4,11-diene isomer	1442	0.15%	
46.489	trans-beta-Farnesene	1445	0.06%	
46.653	Unidentified + alpha-Humulene	1447	0.17%	
46.778	Amorpha-4,11-diene	1449	0.52%	
46.879	beta-Santalene	1451	0.2%	
47.131	Unidentified	1455	0.01%	
47.350	Unidentified	1459	0.01%	
47.397	Unidentified	1459	0.04%	
47.516	Unidentified	1461	0.03%	
47.769	Selina-4,11-diene isomer	1465	0.12%	
47.965	Unidentified	1468	0.12%	
48.039	gamma-Curcumene	1470	0.37%	
48.236	Ar-Curcumene	1473	0.28%	
48.414	Selina-4,11-diene	1476	0.24%	
48.624	delta-Selinene	1479	0.06%	
48.739	beta-Selinene	1481	0.12%	



Ret. Time	Component	Ret. Idx.	Conc. %
48.959	Valencene	1484	0.5%
49.105	alpha-Zingiberene	1487	1.48%
49.460	Isodaucene	1492	0.01%
49.551	Unidentified	1494	0.03%
49.736	beta-Dihydroagarofuran	1497	0.83%
49.895	Unidentified	1499	0.7%
50.001	4-epi-cis-Dihydroagarofuran	1501	0.26%
50.350	Unidentified	1507	0.01%
50.505	Unidentified	1509	0.07%
50.578	7-epi-alpha-Selinene	1511	0.6%
50.860	beta-Sesquiphellandrene	1515	2.08%
51.031	(E)-gamma-Bisabolene	1518	0.02%
51.367	Unidentified	1524	0.31%
51.509	Unidentified	1526	0.08%
51.631	Selina-4(15),7(11)-diene	1528	0.11%
51.710	Kessane	1530	0.04%
51.923	Selina-3,7(11)-diene	1533	1.91%
52.333	alpha-Elemol	1540	8.92%
52.480	Unidentified	1543	0.01%
52.610	Unidentified	1545	0.01%
53.044	(E)-Nerolidol	1552	0.34%
53.415	Unidentified	1558	0%
53.918	Unidentified	1567	0.2%
54.022	Santalenone	1568	0.14%
54.284	Caryophyllene oxide	1573	0.05%
54.670	Unidentified	1579	0.01%
54.737	Unidentified	1580	0.02%
55.187	Eudesm-5-en-11-ol	1588	0.06%
55.353	beta-Eudesmol	1591	0.08%
55.440	Unidentified	1592	0.05%
55.738	5-epi-7-epi-alpha-Eudesmol	1597	2.06%
56.100	Unidentified	1604	0.05%
56.174	Unidentified	1605	0.14%
56.376	Unidentified	1608	0.1%
56.674	10-epi-gamma-Eudesmol	1614	10.64%
56.781	Guaiol	1616	0.84%
57.205	gamma-Eudesmol	1623	7.35%
57.423	Eremoligenol isomer	1627	0.15%
57.646	Unidentified	1631	0.39%
57.905	Unidentified	1636	0.41%



Ret. Time	Component	Ret. Idx.	Conc. %	
58.008	Unidentified	1637	1.01%	
58.158	Unidentified	1640	0.2%	
58.526	Valerianol	1646	31.28%	
58.607	alpha-Eudesmol	1648	4.77%	
58.912	7-epi-alpha-Eudesmol	1653	13.19%	
59.053	Unidentified	1656	0.19%	
59.225	Unidentified	1659	0.05%	
59.289	Unidentified	1660	0.17%	
59.476	Unidentified	1663	0.19%	
59.667	Unidentified	1667	0.06%	
59.861	Unidentified	1670	0.64%	
60.183	epi-alpha-Bisabolol	1676	0.19%	IFRA
60.260	alpha-Bisabolol	1677	0.07%	IFRA
60.380	Unidentified	1679	0.03%	
60.535	Unidentified	1682	0.02%	
60.671	Unidentified	1684	0.07%	
60.831	Unidentified	1687	0.43%	
61.111	Unidentified	1692	0.05%	
61.235	Unidentified	1694	0.02%	
61.443	Unidentified	1698	0.08%	
61.636	Unidentified	1702	0.03%	
61.785	(2E,6E)-Farnesol	1704	0.07%	IFRA
61.905	Unidentified	1707	0.03%	
62.134	Unidentified + Unidentified	1711	0.05%	
62.315	Unidentified	1714	0.02%	
62.528	Unidentified	1718	0.02%	
62.776	Unidentified	1723	0.04%	
62.920	Unidentified	1726	0.08%	
63.059	Unidentified	1728	0.01%	
63.147	Unidentified	1730	0.03%	
63.268	Unidentified	1732	0.19%	
63.335	Unidentified	1733	0.02%	
63.446	Unidentified	1735	0.01%	
63.558	Unidentified	1737	0%	
63.783	(Albicanol) Decahydro-2-methylene-5,5,8a-trimethyl-1-naphthalenemethanol	1742	0.18%	
63.870	Unidentified	1743	0.01%	
64.524	Unidentified	1755	0.02%	
64.700	Drimenol	1759	1.17%	
64.925	Unidentified	1763	0.02%	
65.119	Cryptomeridiol analogue	1766	0.03%	

Ret. Time	Component	Ret. Idx.	Conc. %
65.342	Unidentified	1771	0.03%
66.671	Unidentified	1795	0.03%
67.144	Cryptomeridiol	1804	0.03%
67.446	Unidentified	1810	0.03%
67.628	Unidentified	1814	0.02%
67.775	Unidentified	1817	0%
69.496	Unidentified	1850	0.02%
70.241	Viridiflorol	1865	0.01%
70.355	Unidentified	1867	0.01%
71.716	Unidentified	1894	0.01%
71.890	Unidentified	1897	0.01%
72.425	Unidentified	1908	0.01%
72.703	Unidentified	1914	0.01%
75.248	Unidentified	1966	0.01%
77.325	Unidentified	2009	0.01%

Total Identified Compounds **92.8 %**

