



Essential Oil University

GC/MS Report

Item	Lot
Clove Bud EO <i>Eugenia caryophyllata</i>	1C
Date	Analyst
10/14/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Clove Bud EO, meets the expected chemical profile for authentic essential oil of *Eugenia caryophyllata*. 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:** Clove Bud EO**Botanical Name:** *Eugenia caryophyllata***Lot Number:** 1C**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Madagascar**Analysis Date:** 10/14/2025**Manufacture Date:** September 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

-.44

1.53496

1.05919



Ret. Time	Component	Ret. Idx.	Conc. %	
18.310	Limonene	1021	0.01%	ALLERGEN IFRA
22.977	Linalool	1091	0.01%	ALLERGEN IFRA
23.906	trans-4,8-Dimethyl-nona-1,3,7-triene	1105	0.01%	
28.354	Linalyl acetate	1168	0.06%	ALLERGEN
29.319	Methyl salicylate	1182	0.1%	ALLERGEN
31.411	Unidentified	1212	0.06%	
31.933	Unidentified	1220	0.01%	
33.332	Chavicol	1240	0.11%	
39.605	alpha-Cubebene	1333	0.01%	
40.374	Eugenol	1344	76.68%	ALLERGEN IFRA
41.792	alpha-Copaene	1366	0.15%	
42.671	beta-Elemene	1379	0.02%	
42.963	Unidentified	1383	0.04%	
43.283	Methyleugenol	1388	0.04%	PROP. 65 IFRA
43.640	cis-beta-Caryophyllene	1394	0.02%	ALLERGEN
44.610	beta-Caryophyllene	1409	7.16%	ALLERGEN
45.118	Unidentified	1417	0.03%	
46.464	Humulen-(v1)	1438	0.04%	
46.846	alpha-Humulene	1444	1.19%	
47.124	Alloaromadendrene	1449	0.01%	
47.867	trans-Cadina-1(6),4-diene	1461	0.04%	
48.035	Germacrene D	1463	0.03%	
49.358	alpha-Selinene	1484	0.02%	
49.510	alpha-Muurolene	1487	0.01%	
49.858	trans,trans-alpha-Farnesene	1492	0.02%	
50.473	Eugenyl acetate	1502	13.32%	ALLERGEN
50.700	delta-Cadinene	1506	0.17%	
50.888	cis-Calamenene	1509	0.05%	
50.982	Unidentified	1511	0.02%	
51.558	trans-Cadine-1,4-diene	1520	0.02%	
52.593	Unidentified	1538	0.04%	
52.871	Unidentified	1542	0.04%	
54.104	Caryophyllene alcohol	1563	0.03%	
54.479	Caryophyllene oxide	1569	0.19%	
55.126	Unidentified	1580	0.02%	
55.678	Unidentified	1590	0.03%	
55.815	Unidentified	1592	0.02%	
56.099	Unidentified	1597	0.02%	
56.730	Unidentified	1608	0.03%	
57.640	Caryophylla-4(12),8(13)-dien-5-beta-ol	1624	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %	
58.687	Unidentified	1642	0.05%	
59.508	Unidentified	1657	0.03%	
60.217	Unidentified	1669	0.01%	
62.029	Unidentified	1701	0.02%	
63.473	Unidentified	1728	0.02%	

Total Identified Compounds **99.54 %**



TIC
32,879,305

