



Essential Oil University

GC/MS Report

Item	Lot
Clove Bud EO <i>Eugenia caryophyllata</i>	8B
Date	Analyst
3/3/2025	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:** 8B**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Madagascar**Analysis Date:** 3/3/2025**Manufacture Date:** November 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

-.48

1.53482

1.05884



Ret. Time	Component	Ret. Idx.	Conc. %	
23.250	Linalool	1095	0.01%	IFRA
29.612	Methyl salicylate	1186	0.08%	
33.620	Chavicol	1244	0.07%	
40.688	Eugenol	1349	78.05%	IFRA
42.112	alpha-Copaene	1371	0.13%	
43.581	Methyleugenol	1393	0.04%	IFRA
43.968	cis-beta-Caryophyllene	1399	0.01%	
44.938	beta-Caryophyllene	1414	6.81%	
45.440	Unidentified	1422	0.02%	
46.784	Humulen-(v1)	1443	0.02%	
47.172	alpha-Humulene	1450	1.09%	
47.439	Alloaromadendrene	1454	0%	
48.190	cis-Murrola-4(14),5-diene	1466	0.04%	
48.370	trans-Cadina-1(6),4-diene	1469	0.01%	
49.252	beta-Selinene	1483	0.01%	
49.686	alpha-Selinene	1490	0.01%	
49.831	alpha-Muurolene	1492	0.01%	
50.171	trans,trans-alpha-Farnesene	1497	0.02%	
50.487	Unidentified	1502	0.01%	
50.778	Eugenyl acetate	1507	12.97%	
51.015	delta-Cadinene	1511	0.15%	
51.210	cis-Calamenene	1515	0.05%	
51.305	Unidentified	1516	0.02%	
51.410	Unidentified	1518	0.01%	
51.868	trans-Cadine-1,4-diene	1526	0.02%	
52.915	Unidentified	1543	0.02%	
53.204	Unidentified	1548	0.03%	
54.434	Caryophyllene alcohol	1569	0.02%	
54.805	Caryophyllene oxide	1575	0.15%	
55.460	Unidentified	1586	0.01%	
56.102	Eugenyl acetate isomer	1597	0.01%	
56.428	Humulene epoxide II	1602	0.02%	
57.054	Unidentified	1613	0.02%	
57.446	Epicubenol	1620	0.01%	
57.961	Caryophylla-4(12),8(13)-dien-5-beta-ol	1629	0.02%	
59.012	Unidentified	1648	0.03%	
59.820	Unidentified	1662	0.02%	

Total Identified Compounds **99.83 %**

