



Essential Oil University

GC/MS Report

Item	Lot
German Chamomile (Blue) EO <i>Matricaria chamomilla</i>	0E
Date	Analyst
12/19/2025	Dr. Robert S. Pappas

© Copyright 2025 by Essential Oil University. All rights reserved. Any publishing, copying, use, dissemination, or distribution of this report, including online, without the express written permission of Essential Oil University is strictly prohibited.

The analysis of this batch sample, German Chamomile (Blue) EO, meets the expected chemical profile for authentic essential oil of *Matricaria chamomilla*. 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: German Chamomile (Blue) EO
Botanical Name: Matricaria chamomilla
Lot Number: 0E
Production Method: Steam distilled

Sample Type: EO - Single
Country of Origin: Bulgaria
Analysis Date: 12/19/2025
Manufacture Date: November 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	METHOD	RESULTS
Optical Rotation @20°C	USP[781]	Not Measurable
Refractive Index @20°C	USP[831]	1.50860
Specific Gravity @20°C	USP[841]	0.94454



Ret. Time	Component	Ret. Idx.	Conc. %	
4.203	3-Methylbutanal	635	0.01%	
4.320	2-Methylbutanal	648	0.02%	
8.743	Ethyl 2-methylbutyrate	841	0.07%	
11.096	Santolina triene	900	0.02%	
12.807	alpha-Pinene	930	0.08%	ALLERGEN
13.357	Propyl 2-methylbutyrate	940	0.04%	
15.023	Sabinene	969	0.04%	
15.338	beta-Pinene	975	0.03%	ALLERGEN
15.680	6-Methyl hept-5-en-2-one	981	0.02%	
16.000	2-Pentyl furan	987	0.06%	
16.286	Yomogi alcohol	992	0.03%	
16.838	Octanal	1001	0.02%	
17.714	alpha-Terpinene	1014	0.01%	ALLERGEN
18.196	para-Cymene	1022	0.08%	
18.498	Limonene	1026	0.04%	ALLERGEN IFRA
18.706	1,8-Cineole	1029	0.03%	
18.891	cis-beta-Ocimene	1032	0.1%	
19.224	Butyl 2-methylbutyrate	1037	0.01%	
19.589	trans-beta-Ocimene	1043	0.55%	
20.340	Artemisia ketone	1054	0.4%	
20.400	gamma-Terpinene	1055	0.1%	
21.816	Artemisia alcohol	1076	0.04%	
22.236	Terpinolene	1082	0.06%	ALLERGEN
23.195	Linalool	1097	0.01%	ALLERGEN IFRA
23.560	Nonanal	1102	0.03%	
27.605	beta-Artemisia acetate	1160	0.03%	
28.227	Borneol	1169	0.02%	
28.824	Terpinen-4-ol	1178	0.01%	
32.294	Unidentified	1228	0.02%	
32.594	cis-3-Hexenyl isovalerate	1233	0.03%	IFRA
34.906	Unidentified	1266	0.02%	
36.057	trans-Anethole	1283	0.04%	ALLERGEN
36.813	Carvacrol	1294	0.02%	
37.039	Tridecane	1297	0.03%	
38.648	Unidentified	1322	0.02%	
39.109	delta-Elemene	1329	0.12%	
40.071	Unidentified	1343	0.04%	
40.329	Unidentified	1347	0.03%	
41.125	Decanoic acid	1359	0.07%	
41.991	alpha-Copaene	1373	0.08%	



Ret. Time	Component	Ret. Idx.	Conc. %	
42.395	Modheph-2-ene	1379	0.06%	
42.554	Unidentified	1381	0.03%	
42.832	alpha-Isocomene	1385	0.21%	
43.193	Unidentified	1391	0.01%	
44.020	Unidentified	1404	0.01%	
44.295	beta-Isocomene	1408	0.03%	
44.745	beta-Ylangene	1415	0.03%	
44.811	beta-Caryophyllene	1416	0.2%	ALLERGEN
45.106	beta-Cedrene	1421	0.01%	IFRA
45.454	beta-Copaene	1426	0.03%	
45.994	Aromadendrene	1435	0.14%	
46.913	trans-beta-Farnesene	1450	19.2%	
47.067	alpha-Humulene	1452	0.05%	
47.183	Unidentified	1454	0.03%	
47.346	Alloaromodendrene	1457	0.14%	
47.732	Dehydrosesquicineole	1463	0.08%	
48.282	trans-Cadina-1(6),4-diene	1472	0.11%	
48.439	gamma-Curcumene	1474	0.04%	
48.665	Germacrene D	1478	2.16%	
49.175	beta-Selinene	1486	0.16%	
49.236	cis,cis-alpha-Farnesene	1487	0.55%	
49.550	Bicyclogermacrene	1492	1.92%	
49.725	alpha-Muurolene	1495	0.06%	
50.068	trans,trans-alpha-Farnesene	1500	2.45%	
50.294	beta-Bisabolene	1504	0.15%	
50.456	3,6-Dihydrochamazulene	1507	0.21%	
50.605	gamma-Cadinene	1509	0.14%	
50.731	Unidentified	1511	0.02%	
50.909	delta-Cadinene	1514	0.21%	
51.260	beta-Sesquiphellandrene	1520	0.21%	
51.312	Matricaria ester	1521	0.99%	
51.535	Unidentified	1525	0.04%	
52.241	trans-alpha-Bisabolene	1537	0.04%	
52.602	Sesquirosefuran	1543	0.03%	
53.281	Unidentified	1554	0.08%	
53.434	trans-Nerolidol	1557	0.13%	
53.604	Unidentified	1559	0.05%	
53.925	Dendrolasin	1565	0.21%	
54.189	Matricaria ester isomer	1569	0.04%	
54.388	Spathulenol	1573	0.68%	



Ret. Time	Component	Ret. Idx.	Conc. %	
54.530	Unidentified	1575	0.02%	
54.718	Caryophyllene oxide	1578	0.06%	
54.880	Unidentified	1581	0.08%	
54.922	Gleenol	1582	0.13%	
55.077	Unidentified	1584	0.03%	
55.380	Unidentified	1589	0.05%	
55.431	Viridiflorol	1590	0.1%	
55.495	Unidentified	1591	0.05%	
55.681	Unidentified	1594	0.04%	
56.027	Ledol	1600	0.08%	
56.172	Rosifoliol	1603	0.08%	
56.499	Unidentified	1609	0.14%	
56.697	Unidentified	1612	0.17%	
56.960	Unidentified	1617	0.09%	
57.170	Unidentified	1620	0.07%	
57.257	Unidentified	1622	0.13%	
57.503	Unidentified	1626	0.19%	
57.616	Unidentified	1628	0.11%	
57.790	Unidentified	1631	0.02%	
57.940	Unidentified	1634	0.06%	
58.148	tau-Cadinol	1638	0.36%	
58.225	epi-alpha-Muurolol	1639	0.06%	
58.409	Unidentified	1642	0.09%	
58.576	Unidentified	1645	0.05%	
58.865	alpha-Bisabolol oxide B	1651	7.07%	
59.050	Unidentified	1654	0.08%	
59.219	Unidentified	1657	0.26%	
59.265	Unidentified	1658	0.15%	
59.535	trans-Bisabolol-11-ol	1662	0.16%	
59.702	epi-alpha-Bisabolol	1665	0.12%	IFRA
59.765	Unidentified	1666	0.06%	
60.002	Unidentified	1671	0.04%	
60.361	alpha-Bisabolone oxide A	1677	5.14%	
60.632	alpha-Bisabolol	1682	16.5%	IFRA
60.705	Unidentified	1683	0.33%	
60.862	Unidentified	1686	0.15%	
61.057	Unidentified	1689	0.06%	
62.496	Herniarin	1716	0.04%	IFRA
62.979	Chamazulene	1725	3.43%	
63.125	Unidentified	1727	0.08%	



Ret. Time	Component	Ret. Idx.	Conc. %	
64.076	alpha-Bisabolol oxide A	1745	25.3%	IFRA
64.618	Unidentified	1755	0.06%	
64.970	Unidentified	1762	0.03%	
65.081	Unidentified	1764	0.07%	
66.425	Unidentified	1789	0.05%	
66.724	Unidentified	1794	0.05%	
67.168	Unidentified	1803	0.05%	
68.800	Unidentified	1835	0.02%	
68.876	Phytone	1836	0.25%	
70.787	cis-Spiroether (cis-Tonghaosu)	1874	2.9%	
71.494	trans-Spiroether (trans-Tonghaosu)	1887	0.26%	
73.115	Unidentified	1920	0.03%	
74.386	Unidentified	1946	0.08%	
76.424	Unidentified	1988	0.02%	
83.082	Oxacycloheptadec-7-en-2-one	2131	0.12%	
90.169	Tricosane	2294	0.22%	
94.265	Tetracosane	2394	0.04%	
98.208	Pentacosane	2494	0.6%	
105.664	Heptacosane	2693	0.1%	
109.849	Unidentified	2812	0.43%	

Total Identified Compounds **96.14 %**



TIC
8,994,866

