



Sample & Analysis Information

Sample Information

Sample Name: Blue Tansy**Botanical Name:** Tanacetum annuum**Lot Number:** 13024**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Morocco**Analysis Date:** 2/6/2025**Manufacture Date:** February 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

Not Measurable

1.49972

0.90337

Ret. Time	Component	Ret. Idx.	Conc. %	
8.197	Ethyl 2-methylbutyrate	842	0.03%	
11.502	Tricyclene	921	0.1%	
11.652	alpha-Thujene	924	0.36%	
12.055	alpha-Pinene	931	2.82%	
12.586	Propyl-2-methylbutyrate	941	0.03%	
12.840	Unidentified	946	0.01%	
12.940	Camphene	947	0.94%	
14.216	Sabinene	971	18.6%	
14.500	beta-Pinene	976	7.37%	
14.817	6-Methyl hept-5-en-2-one	982	0.03%	
15.118	Myrcene	988	4.83%	
15.980	Octanal	1003	0.03%	
16.012	para-Mentha-1(7),8-diene	1003	0.07%	
16.169	alpha-Phellandrene	1006	6.44%	
16.301	delta-3-Carene	1008	0.04%	
16.683	2-Methylbutyl isobutyrate	1014	0.02%	
16.811	alpha-Terpinene	1016	0.98%	
17.300	para-Cymene	1023	5.48%	
17.587	Limonene	1028	2.35%	IFRA
17.687	beta-Phellandrene	1029	0.33%	
17.765	1,8-Cineole	1030	1.65%	
18.288	Butyl-2-methylbutyrate	1038	0.02%	
18.658	trans-beta-Ocimene	1044	0.01%	
19.440	gamma-Terpinene	1056	2.09%	
20.218	trans-Sabinene hydrate	1068	0.12%	
21.225	Terpinolene	1084	1.02%	
21.574	6,7-Epoxymyrcene	1089	0.18%	
22.173	Linalool	1098	0.09%	IFRA
22.260	cis-Sabinene hydrate	1100	0.03%	
22.394	2-Methylbutyl-2-methylbutyrate	1102	0.07%	
23.093	trans-4,8-Dimethylnona-1,3,7-triene	1112	0.01%	
23.205	Unidentified	1113	0.12%	
23.853	cis-para-Menth-2-en-1-ol	1123	0.07%	
24.279	Limona ketone	1129	0.21%	
25.082	trans-para-Menth-2-en-1-ol	1141	0.07%	
25.431	Camphor	1146	10.64%	
25.761	Unidentified	1151	0.07%	
26.978	Unidentified isomer I	1168	0.03%	
27.111	Borneol	1170	2.06%	
27.241	Unidentified isomer I	1172	0.06%	

Ret. Time	Component	Ret. Idx.	Conc. %	
27.712	Terpinen-4-ol	1179	2.31%	
27.953	Unidentified	1183	0.06%	
28.709	alpha-Terpineol	1194	0.19%	
29.245	alpha-Phellandrene epoxide	1201	0.08%	
29.503	Decanal	1205	0.03%	
29.646	trans-Piperitol	1207	0.03%	
30.298	Unidentified	1217	0.04%	
31.123	Hex-(3Z)-enyl-2-methylbutyrate	1229	0.03%	
31.628	Pulegone	1236	0.03%	
31.776	alpha-Phellandrene epoxide analogue	1239	0.05%	
31.918	Cuminaldehyde	1241	0.04%	IFRA
32.361	Carvotanacetone	1247	0.07%	
35.150	Thymol	1288	1.04%	
35.687	Carvacrol	1296	0.04%	
36.127	2-Methyl-4-methylhexylbutyrate	1303	0.04%	
37.695	para-Mentha-1,4-dien-7-ol	1327	0.04%	
40.615	para-Methyl anisate	1371	0.03%	
40.773	alpha-Copaene	1374	0.61%	
41.555	7-epi-Sesquithujene	1386	0.08%	
41.667	beta-Elemene	1387	0.22%	
43.564	trans-beta-Caryophyllene	1417	2.28%	
44.437	Unidentified	1431	0.09%	
44.901	cis-beta-Farnesene	1438	0.82%	
45.673	trans-beta-Farnesene	1451	0.04%	
45.804	alpha-Humulene	1453	0.18%	
46.080	Alloaromadendrene	1457	0.03%	
46.709	4,5-di-epi-Aristolochene	1467	0.04%	
47.028	gamma-Murolene	1473	0.07%	
47.210	gamma-Curcumene	1475	0.11%	
47.395	Germacrene D	1478	1.1%	
47.585	trans-beta-Bergamotene	1481	0.04%	
47.805	Valencene	1485	0.08%	
47.884	beta-Selinene	1486	0.24%	
48.279	Bicyclogermacrene	1493	0.26%	
48.487	alpha-Murolene	1496	0.05%	
49.235	3,6-Dihydrochamazulene	1508	5.34%	
49.353	3,6-Dihydrochamazulene isomer	1510	0.75%	
49.669	delta-Cadinene	1516	0.23%	
49.832	3,6-Dihydrochamazulene isomer	1518	0.15%	
50.013	beta-Sesquiphellandrene	1522	0.59%	

Ret. Time	Component	Ret. Idx.	Conc. %	
50.293	3,6-Dihydrochamazulene isomer	1526	0.04%	
51.440	alpha-Elemol	1546	0.04%	
53.106	Spathulenol	1574	0.03%	
53.414	Caryophyllene oxide	1579	0.23%	
55.268	5,6-Dihydrochamazulene	1611	0.26%	
56.025	7,12-Dehydro-5,6,7,8-tetrahydrochamazulene isomer	1624	1.04%	
56.208	Eremoligenol isomer	1628	0.09%	
57.480	7,12-Dehydro-5,6,7,8-tetrahydrochamazulene	1650	0.89%	
57.574	beta-Eudesmol	1652	0.64%	
59.284	Unidentified	1682	0.04%	
61.688	Chamazulene	1726	7.69%	
62.988	Unidentified	1751	0.03%	
63.652	Unidentified	1763	0.04%	
65.130	Unidentified	1791	0.03%	
67.607	Phytone	1839	0.03%	
72.845	meta-Camphorene	1944	0.07%	
75.361	Unidentified isomer II	1996	0.11%	
75.721	Unidentified isomer II	2003	0.72%	
75.826	Unidentified	2006	0.13%	
90.087	Unidentified	2329	0.04%	
93.421	Unidentified isomer III	2411	0.16%	
96.043	Unidentified isomer III	2478	0.67%	

Total Identified Compounds **98.47 %**



GC/MS Report: Chromatogram

TIC
7,994,274

