



Sample & Analysis Information

Sample Information

Sample Name: Sweet Orange 10X Essential Oil**Botanical Name:** Citrus sinensis**Lot Number:** 13357**Production Method:** Cold Press**Sample Type:** EO - Single**Country of Origin:** USA**Analysis Date:** 8/11/2025**Manufacture Date:** August 2025

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

+83.52

1.46887

0.84546

Ret. Time	Component	Ret. Idx.	Conc. %	
4.766	Heptane	699	0%	
11.032	Nonane	899	0.02%	
12.425	alpha-Thujene	924	0.07%	
12.850	alpha-Pinene	931	0.74%	
15.071	Sabinene	970	0.73%	
15.390	beta-Pinene	976	0.18%	
16.008	Myrcene	987	1.92%	
16.875	Octanal	1002	1.28%	
17.110	alpha-Phellandrene	1005	0.05%	
17.255	delta-3-Carene	1007	0.04%	
17.770	alpha-Terpinene	1015	0.03%	
18.263	para-Cymene	1023	0.26%	
18.657	Limonene	1029	81.71%	IFRA
18.726	beta-Phellandrene	1030	0.21%	
18.780	1,8-Cineole	1030	0.01%	
18.948	cis-beta-Ocimene	1033	0.01%	
19.650	trans-beta-Ocimene	1044	0.05%	
20.468	gamma-Terpinene	1056	1%	
21.257	1-Octanol	1068	0.15%	
22.300	Terpinolene	1083	0.02%	
22.390	trans-Linalool oxide (furanoid)	1085	0.02%	
23.254	Linalool	1098	2.91%	IFRA
23.615	Nonanal	1103	0.31%	
25.567	cis-Limonene oxide	1131	0.02%	
25.854	trans-Limonene oxide	1135	0.01%	
26.659	Isopulegol	1147	0.04%	
26.892	Citronellal	1150	0.52%	IFRA
27.361	Neoisopulegol	1157	0.02%	
28.242	Nonanol	1170	0.01%	
29.896	alpha-Terpineol	1193	0.88%	
30.672	Decanal	1205	4.97%	
30.940	Octyl acetate	1208	0.13%	
31.875	Nerol	1222	0.02%	
32.027	Citronellol	1224	0.08%	IFRA
32.824	Neral	1236	0.31%	IFRA
33.651	Geraniol	1248	0.02%	IFRA
34.847	Geranial	1265	0.49%	IFRA
35.196	Unidentified	1271	0.01%	
40.904	Neryl acetate	1356	0.05%	
42.084	alpha-Copaene	1374	0.02%	

Ret. Time	Component	Ret. Idx.	Conc. %	
42.961	Unidentified	1387	0.01%	
44.266	Dodecanal	1407	0.42%	
44.902	beta-Caryophyllene	1418	0.19%	
45.726	trans-alpha-Bergamotene	1431	0.02%	
47.163	alpha-Humulene	1454	0.02%	
48.753	Germacrene D	1479	0.01%	
50.999	delta-Cadinene	1516	0.01%	

Total Identified Compounds **99.98 %**

