



Essential Oil University

GC/MS Report

Item	Lot
NOP Orange EO CP Sweet <i>Citrus sinensis</i>	3N
Date	Analyst
1/23/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, NOP Orange EO CP Sweet, meets the expected chemical profile for authentic essential oil of *Citrus sinensis*. 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:** NOP Orange EO CP Sweet**Botanical Name:** Citrus sinensis**Lot Number:** 3N**Production Method:** Cold Press**Sample Type:** EO - Certified Organics**Country of Origin:** USA**Analysis Date:** 1/23/2025**Manufacture Date:** May 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

+98.28

1.47326

0.84665



Ret. Time	Component	Ret. Idx.	Conc. %	
11.698	alpha-Thujene	925	0%	
12.104	alpha-Pinene	932	0.65%	
12.995	Camphene	948	0%	
14.244	Sabinene	971	0.27%	
14.545	beta-Pinene	977	0.02%	
15.173	Myrcene	989	2.21%	
16.013	Octanal	1003	0.32%	
16.220	alpha-Phellandrene	1007	0.05%	
16.363	delta-3-Carene	1009	0.11%	
17.824	Limonene	1031	94.85%	IFRA
17.875	beta-Phellandrene	1032	0.17%	
18.080	cis-beta-Ocimene	1035	0.01%	
18.730	trans-beta-Ocimene	1045	0.02%	
20.297	1-Octanol	1069	0.02%	
21.037	Isoterpinolene	1081	0%	
21.292	Terpinolene	1085	0.02%	
22.238	Linalool	1099	0.42%	IFRA
22.602	Nonanal	1105	0.05%	
24.781	trans-Limonene oxide	1136	0.01%	
25.826	Citronellal	1152	0.04%	IFRA
28.778	alpha-Terpineol	1195	0.05%	
29.562	Decanal	1206	0.25%	
29.851	Octyl acetate	1210	0.01%	
30.395	trans-Carveol	1218	0.01%	
30.770	Nerol	1224	0.01%	
30.935	Citronellol	1226	0%	
31.701	Neral	1237	0.04%	IFRA
32.103	Carvone	1243	0%	
33.716	Geranial	1267	0.08%	IFRA
34.040	Unidentified	1272	0%	
34.241	Perillaldehyde	1275	0.02%	IFRA
35.256	Unidentified	1290	0.01%	
36.460	Undecenal	1308	0.01%	
40.853	alpha-Copaene	1375	0.03%	
41.640	beta-Cubebene	1387	0.02%	
41.753	beta-Elemene	1389	0.01%	
43.079	Dodecanal	1409	0.05%	
43.640	beta-Caryophyllene	1418	0.02%	
44.290	beta-Copaene	1429	0.02%	
47.468	Germacrene D	1480	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %	
48.182	Valencene	1491	0.04%	
48.377	Bicyclogermacrene	1494	0.01%	
48.939	Unidentified	1503	0%	
49.748	delta-Cadinene	1517	0.03%	
51.514	Elemol	1547	0.01%	
53.745	Unidentified	1585	0.01%	
58.179	Unidentified	1663	0%	
59.817	beta-Sinensal	1692	0.01%	
62.831	alpha-Sinensal	1748	0.01%	
63.742	Unidentified	1765	0.02%	

Total Identified Compounds **100 %**

