



Essential Oil University

GC/MS Report

Item	Lot
Mandarin EO CP Green <i>Citrus reticulata blanco</i>	0G
Date	Analyst
6/11/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Mandarin EO CP Green, meets the expected chemical profile for authentic essential oil of *Citrus reticulata blanco*. 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:** Mandarin EO CP Green**Botanical Name:** Citrus reticulata blanco**Lot Number:** 0G**Production Method:** Cold Press**Sample Type:** EO - Single**Country of Origin:** Italy**Analysis Date:** 6/11/2025**Manufacture Date:** June 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

+76.48

1.47422

0.84960



Ret. Time	Component	Ret. Idx.	Conc. %	
3.020	Unidentified	551	0.01%	
11.621	alpha-Thujene	923	0.46%	
12.022	alpha-Pinene	931	1.89%	
12.904	Camphene	947	0.01%	
14.153	Sabinene	970	0.44%	
14.448	beta-Pinene	975	1.47%	
15.077	Myrcene	987	1.84%	
15.923	Octanal	1002	0.13%	
16.120	alpha-Phellandrene	1005	0.06%	
16.262	delta-3-Carene	1007	0.02%	
16.773	alpha-Terpinene	1015	0.28%	
17.264	para-Cymene	1023	0.52%	
17.667	Limonene	1029	72.07%	IFRA
17.720	beta-Phellandrene	1030	0.14%	
17.770	1,8-Cineole	1030	0.01%	
17.954	cis-beta-Ocimene	1033	0.01%	
18.620	trans-beta-Ocimene	1044	0.03%	
19.440	gamma-Terpinene	1056	18.59%	
20.177	trans-Sabinene hydrate	1068	0.06%	
20.296	Pinol	1069	0.01%	
21.179	Terpinolene	1083	0.53%	
22.130	Linalool	1098	0.1%	IFRA
22.203	cis-Sabinene hydrate	1099	0.05%	
22.494	Nonanal	1103	0.02%	
24.370	cis-Limonene oxide	1130	0%	
25.712	Citronellal	1150	0.01%	IFRA
27.653	Terpinen-4-ol	1178	0.03%	
28.654	alpha-Terpineol	1193	0.17%	
29.445	Decanal	1204	0.05%	
30.804	Citronellol	1224	0.01%	IFRA
33.618	Geranial	1266	0.02%	IFRA
33.910	Unidentified	1270	0.01%	
34.111	Perillaldehyde	1273	0.02%	IFRA
35.103	Thymol	1288	0.05%	
40.697	alpha-Copaene	1372	0.01%	
42.641	Dimethylantranilate	1402	0.4%	IFRA
42.935	Unidentified	1407	0.01%	
43.494	beta-Caryophyllene	1416	0.09%	
44.431	Unidentified	1431	0.04%	
48.252	alpha-Selinene	1492	0.04%	



Ret. Time	Component	Ret. Idx.	Conc. %	
48.609	Unidentified	1498	0%	
48.793	trans,trans-alpha-Farnesene	1501	0.18%	
49.600	delta-Cadinene	1515	0.01%	
62.698	alpha-Sinensal	1745	0.08%	

Total Identified Compounds **99.91 %**

