



# GC/MS Report

GC3

Item	Lot <b>12774</b>
<b>Sweet Orange 10x</b>	
<i>Citrus sinensis</i>	
Orange EO 10-Fold, Decolorized	
Date	Analyst
<b>9/30/2024</b>	<b>KS</b>

## Sample Information

**Sample Name:** Sweet Orange 10x  
**Botanical Name:** Citrus sinensis  
**Lot Number:** 12804  
**Production Method:** Cold Press

**Sample Type:** EO - Single  
**Country of Origin:** USA  
**Analysis Date:** 9/30/2024  
**Date of Distillation:** September 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	METHOD	RESULTS
Optical Rotation @20°C	USP[781]	+83.64
Refractive Index @20°C	USP[831]	1.46876
Specific Gravity @20°C	USP[841]	0.84560

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Components

Ret. Time	Component	Ret. Idx.	Conc. %	
11.844	alpha-Thujene	923	0.03%	
12.245	alpha-Pinene	931	0.36%	
14.404	Sabinene	970	0.2%	
14.700	beta-Pinene	975	0.16%	
15.337	Myrcene	987	1.45%	
16.170	Octanal	1002	1.39%	
16.389	alpha-Phellandrene	1005	0.04%	
16.539	delta-3-Carene	1007	0.04%	
17.056	Unidentified	1015	0.02%	
17.538	para-Cymene	1023	0.38%	
17.929	Limonene	1029	81.26%	IFRA
17.985	beta-Phellandrene	1030	0.19%	
18.911	trans-beta-Ocimene	1044	0.07%	
19.693	gamma-Terpinene	1056	1.2%	
20.477	1-Octanol	1068	0.17%	
21.502	Terpinolene	1083	0.02%	
22.445	Linalool	1098	3.21%	IFRA
22.796	Nonanal	1103	0.3%	
24.709	Unidentified	1131	0.03%	
25.002	Unidentified	1135	0.02%	
25.780	Isopulegol	1146	0.04%	
26.032	Citronellal	1150	0.52%	IFRA
26.468	Unidentified	1156	0.02%	
28.987	alpha-Terpineol	1193	1%	
29.782	Decanal	1205	5.96%	
30.067	Octyl acetate	1209	0.12%	
30.985	Nerol	1222	0.02%	
31.139	Citronellol	1224	0.1%	IFRA
31.915	Neral	1236	0.33%	IFRA
32.317	Unidentified	1242	0.02%	
32.748	Geraniol	1248	0.02%	IFRA
33.932	Geranial	1265	0.59%	IFRA
35.441	Thymol	1288	0.03%	
39.978	Neryl acetate	1356	0.05%	
43.307	Dodecanal	1407	0.48%	
43.899	beta-Caryophyllene	1417	0.15%	
46.138	alpha-Humulene	1453	0.02%	

Total Identified Compounds **99.9 %**

# GC/MS Report: Chromatogram

