



Essential Oil University

GC/MS Report

Item	Lot
Turmeric EO <i>Curcuma longa</i>	3D
Date	Analyst
2/10/2025	Dr. Robert S. Pappas

© Copyright 2025 by Essential Oil University. All rights reserved. Any publishing, copying, use, dissemination, or distribution of this report, including online, without the express written permission of Essential Oil University is strictly prohibited.

The analysis of this batch sample, Turmeric EO, meets the expected chemical profile for authentic essential oil of *Curcuma longa*. 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:** Turmeric EO**Botanical Name:** Curcuma longa**Lot Number:** 3D**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** India**Analysis Date:** 2/10/2025**Manufacture Date:** December 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

-1.80

1.50815

0.93397



Ret. Time	Component	Ret. Idx.	Conc. %	
11.497	Tricyclene	921	0.01%	
11.647	alpha-Thujene	924	0.14%	
12.047	alpha-Pinene	931	0.84%	
12.840	alpha-Fenchene	946	0.01%	
12.932	Camphene	947	0.11%	
14.180	Sabinene	970	0.16%	
14.477	beta-Pinene	976	0.1%	
14.825	6-Methyl hept-5-en-2-one	982	0.02%	
15.105	Myrcene	987	0.19%	
16.150	alpha-Phellandrene	1005	1.66%	
16.290	delta-3-Carene	1008	0.04%	
16.801	alpha-Terpinene	1015	0.05%	
17.281	para-Cymene	1023	1.08%	
17.578	Limonene	1027	1.14%	IFRA
17.640	beta-Phellandrene	1028	0.01%	
17.756	1,8-Cineole	1030	4.33%	
17.974	cis-beta-Ocimene	1034	0.01%	
18.647	trans-beta-Ocimene	1044	0.05%	
19.425	gamma-Terpinene	1056	0.13%	
21.214	Terpinolene	1084	0.03%	
25.375	Camphor	1145	0.01%	
26.980	delta-Terpineol	1168	0.01%	
27.081	Borneol	1170	0.01%	
27.689	Terpinen-4-ol	1179	0.05%	
27.990	4'-Methyl acetophenone	1183	0.01%	
28.691	alpha-Terpineol	1193	0.1%	
29.232	alpha-Phellandrene epoxide	1201	0.02%	
31.619	Neral	1236	0.01%	IFRA
33.641	Geranial	1266	0.01%	IFRA
33.855	Unidentified	1269	0.05%	
37.080	Unidentified	1317	0.02%	
42.348	Unidentified	1398	0.05%	
42.486	alpha-Funebrene	1400	0.21%	
43.163	cis-alpha-Bergamotene	1411	0.05%	
43.235	Acora-3,7(14)-diene	1412	0.02%	
43.322	alpha-Cedrene	1413	0.02%	IFRA
43.519	alpha-Santalene	1416	1.32%	
44.169	gamma-Elemene	1427	0.24%	
44.407	trans-alpha-Bergamotene	1431	0.08%	
44.523	Unidentified	1432	0.1%	



Ret. Time	Component	Ret. Idx.	Conc. %	
45.094	cis-beta-Farnesene	1442	0.15%	
45.273	epi-beta-Santalene	1444	0.18%	
45.660	trans-beta-Farnesene	1451	0.56%	
45.794	alpha-Humulene	1453	0.22%	
45.920	beta-Acoradiene	1455	0.04%	
46.031	epi-beta-Santalene	1457	0.03%	
46.314	alpha-Acoradiene	1461	0.06%	
47.196	gamma-Curcumene	1475	0.11%	
47.417	Ar-Curcumene	1479	5.36%	
47.575	trans-beta-Bergamotene	1481	0.08%	
47.770	Unidentified	1484	0.09%	
47.875	beta-Selinene	1486	0.03%	
48.284	alpha-Zingiberene	1493	6.22%	
48.478	gamma-Amorphene	1496	0.03%	
48.610	cis-alpha-Bisabolene	1498	0.03%	
48.831	beta-Curcumene	1502	0.11%	
49.051	beta-Bisabolene	1505	1.66%	
49.135	beta-Curcumene	1507	0.11%	
49.210	cis-gamma-Bisabolene	1508	0.04%	
49.359	Unidentified	1510	0.04%	
49.641	Ionone isomer	1515	1.18%	
50.039	beta-Sesquiphellandrene	1522	8.72%	
50.178	trans-gamma-Bisabolene	1524	0.28%	
50.255	Unidentified	1526	0.09%	
50.666	Unidentified	1533	0.07%	
50.757	Selina-4(15),7(11)-diene	1534	0.17%	
51.047	Selina-3,7(11)-diene	1539	0.28%	
51.485	Unidentified	1546	0.03%	
51.659	Unidentified	1549	0.06%	
51.788	Sesquisabinene hydrate isomer	1552	0.21%	
51.855	Unidentified	1553	0.08%	
52.041	Germacrene B	1556	0.49%	
52.184	Unidentified	1558	0.12%	
52.602	Unidentified	1565	0.12%	
52.921	Unidentified	1571	0.12%	
53.024	Unidentified	1572	0.13%	
53.158	Ar-Tumerol	1575	1.39%	
53.393	Caryophyllene oxide	1579	0.05%	
53.475	Unidentified	1580	0.02%	
53.720	Unidentified	1584	0.03%	



Ret. Time	Component	Ret. Idx.	Conc. %
53.887	Unidentified	1587	0.48%
53.993	Unidentified	1589	0.05%
54.361	Unidentified	1595	0.04%
54.557	Unidentified	1598	0.26%
54.683	Unidentified	1600	0.17%
54.785	Unidentified	1602	0.11%
54.898	Unidentified	1604	0.17%
55.010	Unidentified	1606	0.04%
55.288	cis-Zingiberenol	1611	0.62%
55.664	anti-syn-syn-Helifolen-12-al C	1618	0.4%
55.843	Unidentified	1621	0.11%
56.261	trans-Zingiberenol	1629	0.54%
56.457	Unidentified	1632	0.72%
56.636	Unidentified	1635	0.11%
56.976	Unidentified	1641	0.22%
57.030	Unidentified	1642	0.08%
57.562	alpha-Eudesmol	1652	0.04%
57.734	Unidentified	1655	0.14%
58.176	Ar-Tumerone	1663	23.62%
58.345	Deodarone isomer	1666	1.69%
58.445	Tumerone	1667	11.6%
58.505	beta-Bisabolol	1668	0.44%
58.666	Unidentified	1671	0.12%
58.754	Unidentified	1673	0.17%
58.891	trans-alpha-trans-Bergamotal	1675	0.07%
59.359	Unidentified	1684	0.57%
59.705	Germacrone	1690	0.03%
59.809	Unidentified	1692	0.13%
59.989	Unidentified	1695	0.2%
60.232	Curlone	1699	11.19%
60.476	Unidentified	1704	0.02%
60.818	cis-alpha-Atlantone	1710	0.26%
61.215	Unidentified	1718	0.03%
61.442	cis-Nuciferol	1722	0.11%
62.398	Unidentified	1740	0.95%
62.605	Unidentified	1744	0.11%
62.682	Unidentified	1745	0.15%
62.968	Unidentified	1750	0.06%
63.365	Unidentified	1758	0.11%
63.479	Unidentified	1760	0.12%



Ret. Time	Component	Ret. Idx.	Conc. %	
63.848	Unidentified	1767	0.05%	
64.035	trans-alpha-Atlantone	1770	1.44%	
64.384	Unidentified	1777	0.08%	
64.803	Unidentified	1785	0.06%	
64.931	Unidentified	1787	0.1%	
65.062	Unidentified	1790	0.15%	
65.794	Unidentified	1803	0.14%	
65.910	Unidentified	1806	0.07%	
65.976	Unidentified	1807	0.08%	
66.118	Unidentified	1810	0.05%	
67.505	Unidentified	1837	0.02%	
68.518	Unidentified	1857	0.03%	
68.651	Unidentified	1860	0.04%	
69.545	Unidentified	1877	0.13%	
70.426	Unidentified	1894	0.09%	
71.633	Unidentified	1919	0.03%	
72.044	Unidentified	1927	0.08%	
74.673	Unidentified	1982	0.07%	

Total Identified Compounds **92.12 %**

