

Sample Information

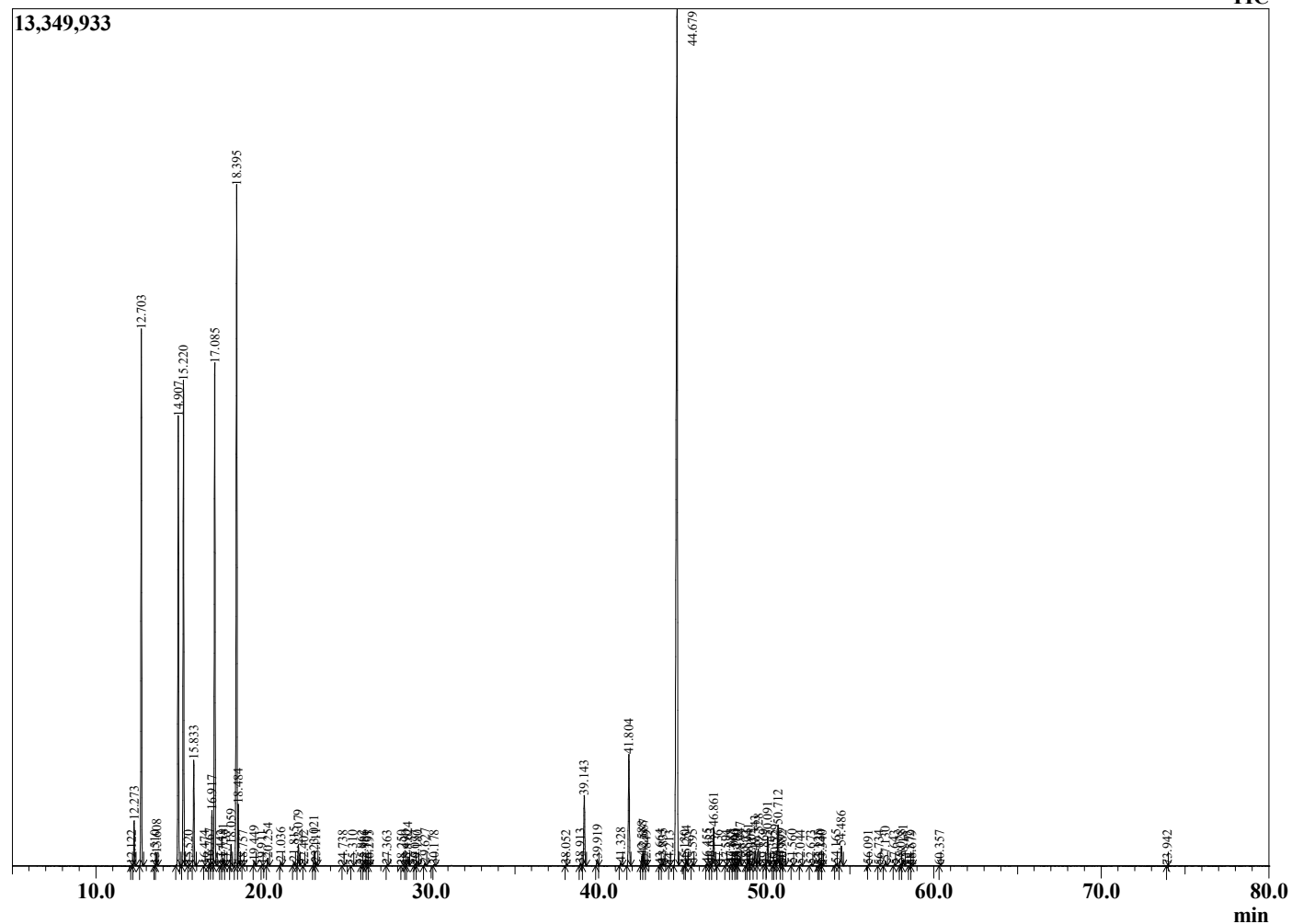
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 12/15/2022 1:42:02 AM
 Sample Type : Essential Oil
 Sample Name : Black Pepper, Super India - Revive
 Sample ID : 0H
 Injection Volume : 0.10
 Instrument ID: : GC-3



Peak Report TIC

R.Time	Name	Area%
12.122	Tricyclene	0.01
12.273	alpha-Thujene	0.79
12.703	alpha-Pinene	9.81
13.510	alpha-Fenchene	0.01
13.608	Camphene	0.22
14.907	Sabinene	8.92
15.220	beta-Pinene	9.47
15.520	trans-Isolimonene	0.01
15.833	Myrcene	2.03
16.474	delta-2-Carene	0.01
16.767	Pseudolimonene	0.05
16.917	alpha-Phellandrene	1.15
17.085	delta-3-Carene	10.42
17.442	1,4-Cineole	0.00
17.581	alpha-Terpinene	0.15
17.737	ortho-Cymene	0.02
18.059	para-Cymene	0.45
18.395	Limonene	15.21
18.484	beta-Phellandrene	1.14
18.757	trans-beta-Ocimene	0.01
19.449	cis-beta-Ocimene	0.11
19.911	Terpinene analogue	0.02
20.254	gamma-Terpinene	0.17
21.036	trans-Sabinene hydrate	0.08
21.815	Isoterpinolene	0.09
22.079	Terpinolene	0.47
22.402	para-Cymenene	0.01
23.021	Linalool	0.34
23.111	cis-Sabinene hydrate	0.06
24.738	cis-para-Menth-2-en-1-ol	0.01
25.310	cis-Limonene oxide	0.01
25.862	trans-Pinocarveol	0.01
25.986	Unidentified	0.02
26.191	trans-Verbenol	0.01
26.295	Unidentified	0.01
27.363	para-Mentha-1,5-dien-8-ol	0.01
28.250	Unidentified	0.01
28.490	Unidentified	0.00
28.624	Terpinen-4-ol	0.21
29.037	para-Cymen-8-ol	0.02
29.180	Unidentified	0.01
29.627	alpha-Terpineol	0.06
30.178	alpha-Phellandrene epoxide	0.03
38.052	Unidentified	0.02
38.913	Elemene isomer	0.06
39.143	delta-Elemene	1.80
39.919	alpha-Cubebene	0.16
41.328	Cyclosativene	0.09
41.804	alpha-Copaene	2.90
42.588	beta-Cubebene	0.25
42.687	beta-Elemene	0.31
42.849	Unidentified	0.01
43.664	cis-beta-Caryophyllene	0.03
43.835	alpha-Gurjunene	0.06
44.213	Gurjunene isomer	0.00
44.679	trans-beta-Caryophyllene	26.53
45.130	Unidentified	0.01
45.254	beta-Copaene	0.13
45.595	alpha-Guaiene	0.05
46.455	Cadina-3,5-diene	0.04
46.683	trans-beta-Farnesene	0.05
46.861	alpha-Humulene	1.00

Chromatogram Black Pepper, Super India - Revive



Comments:

The analysis of this Black Pepper batch sample meets the expected chemical profile for authentic essential oil of *Piper nigrum*. 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.

R.Time	Name	Area%
47.136	Alloaromodendrene	0.02
47.594	Unidentified	0.02
47.888	Cadina-1(6),4-diene	0.04
48.063	gamma-Muurolene	0.06
48.190	Unidentified	0.04
48.260	Unidentified	0.01
48.447	Germacrene D	0.25
48.822	delta-Selinene	0.01
48.941	beta-Selinene	0.19
49.102	gamma-Amorphene	0.07
49.343	Bicyclogermacrene	0.46
49.528	alpha-Muurolene	0.42
49.869	trans,trans-alpha-Farnesene	0.02
50.091	beta-Bisabolene	0.76
50.395	gamma-Cadinene	0.00
50.529	Cubebol	0.15
50.712	delta-Cadinene	1.07
50.899	trans-Calamenene	0.03
50.982	Unidentified	0.03
51.560	trans-Cadina-1,4-diene	0.05
52.044	trans-alpha-Bisabolene	0.03
52.673	Unidentified	0.04
53.125	Germacrene B	0.01
53.230	trans-Nerolidol	0.04
53.340	Unidentified	0.01
54.165	Spathulenol	0.04
54.486	Caryophyllene oxide	0.59
56.091	Humulene epoxide II	0.01
56.734	Unidentified	0.01
57.130	Spathulenol analogue	0.13
57.643	Caryophylla-4(12),8(13)-dien-5-beta-ol	0.01
58.028	epi-alpha-Muurolol	0.04
58.181	alpha-Muurolol	0.16
58.572	Valerianol	0.01
58.679	Unidentified	0.01
60.357	alpha-Bisabolol	0.01
73.942	Camphorene	0.01
		100.00