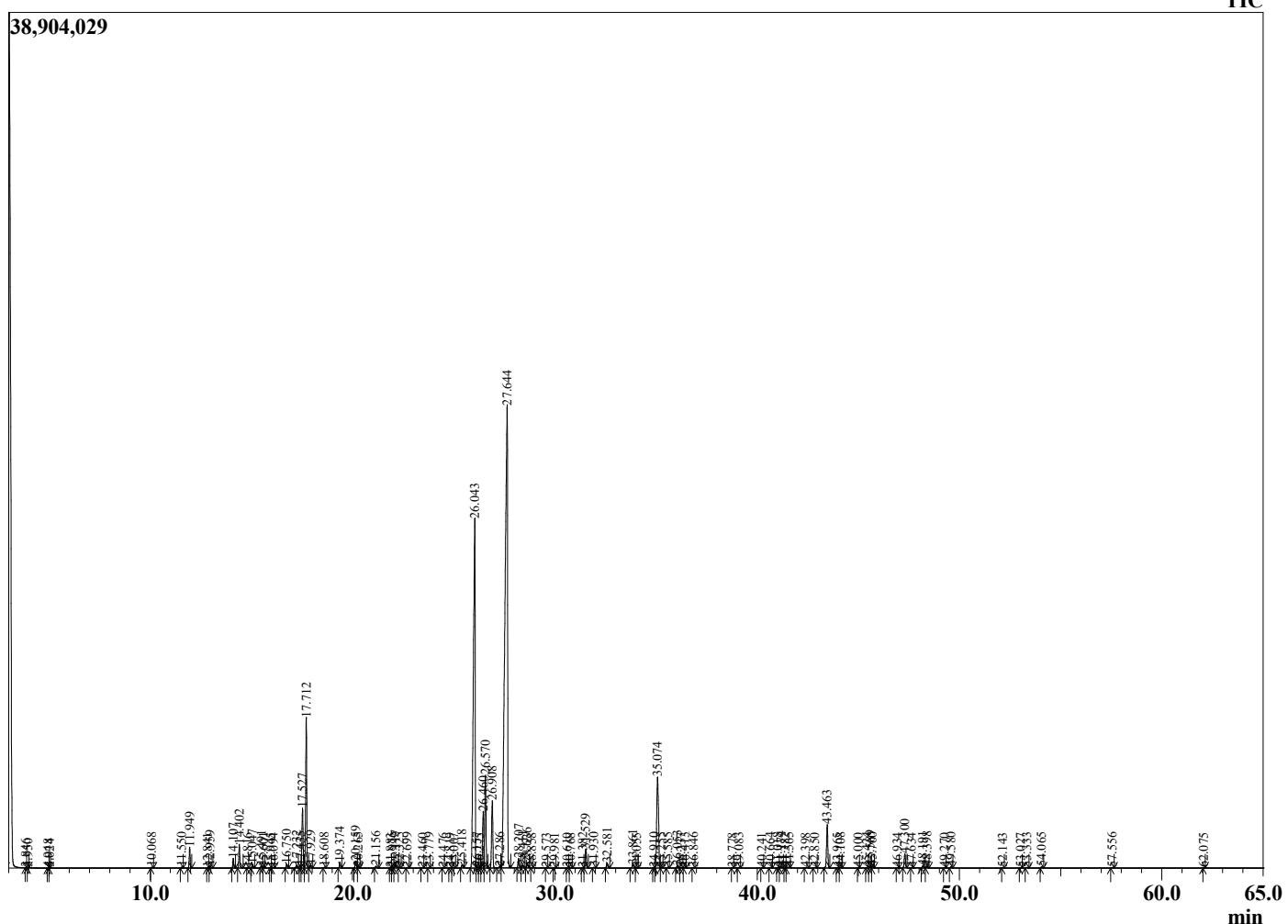


Sample Information

Analyzed by : Dr. Robert S. Pappas
Analyzed : 7/8/2022 8:39:46 AM
Sample Type : Essential Oil
Sample Name : Peppermint Oil, India - Barefut
Sample ID : 0119
Injection Volume : 0.10
Instrument ID: : GC-2



Peppermint Oil, India - Barefut



Comments:

The analysis of this Peppermint Oil batch sample meets the expected chemical authentication of *Mentha piperita*. 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.

©Copyright 2022 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.

Peak Report TIC

R.	Time	Name	Area%
	3.846	3-Methylbutanal	0.01
	3.950	2-Methylbutanal	0.01
	4.948	3-Methylbutanol	0.01
	5.024	2-Methyl butanol	0.01
	10.068	2,5-Diethyltetrahydrofuran	0.03
	11.550	alpha-Thujene	0.03
	11.949	alpha-Pinene	0.69
	12.841	Camphepane	0.01
	12.959	3-Methylcyclohexanone	0.08
	14.107	Sabinene	0.34
	14.402	beta-Pinene	0.88
	14.816	3-Octanone	0.00
	15.047	Myrcene	0.13
	15.491	3-Octanol	0.10
	15.601	Unidentified	0.02
	15.945	Pseudolimonene	0.01
	16.094	alpha-Phellandrene	0.01
	16.750	alpha-Terpinene	0.14
	17.232	para-Cymene	0.11
	17.435	2-Ethyl-hexanol	0.05
	17.527	Limonene	2.36
	17.712	1,8-Cineole	5.79
	17.929	cis-beta-Ocimene	0.11
	18.608	trans-beta-Ocimene	0.03
	19.374	gamma-Terpinene	0.23
	20.159	trans-Sabinene hydrate	0.35
	20.265	Unidentified	0.04
	21.156	Terpinolene	0.09
	21.883	Menthol analogue	0.01
	21.976	3-Nonanol	0.03
	22.117	Linalool	0.15
	22.325	2-Methylbutyl-2-methylbutyrate	0.03
	22.699	2-Methylbutyl-3-methylbutyrate	0.02
	23.460	3-Octyl acetate	0.01
	23.779	cis-para-Menth-2-en-1-ol	0.02
	24.476	Unidentified	0.01
	24.819	trans-Sabinol	0.02
	25.007	trans-para-Menth-2-en-1-ol	0.02
	25.418	Isopulgol	0.14
	26.043	Menthone	22.79
	26.157	para-Menthane-4-ol	0.04
	26.275	trans-Pinocamphone	0.01
	26.460	Menthofuran	2.49
	26.570	Isomenthone	3.87
	26.908	Neomenthol	2.97
	27.286	Unidentified	0.04
	27.644	Menthol	43.92
	28.207	Isomenthol	0.38
	28.411	Neoisomenthol	0.11
	28.636	alpha-Terpineol	0.20
	28.858	Unidentified	0.01
	29.573	trans-Piperitol	0.00
	29.981	Unidentified	0.02
	30.610	Nerol	0.01
	30.768	Citronellol	0.01
	31.382	cis-3-Hexenyl isovalerate	0.03
	31.529	Pulegone	0.83
	31.930	Carvone	0.03
	32.581	Piperitone	0.22
	33.861	Neomenthyl acetate	0.17
	34.055	Unidentified	0.01
	34.910	Dihydroedulan I	0.02

R.Time	Name	Area%
35.074	Methyl acetate	5.91
35.255	Dihydroedulan II	0.02
35.585	Unidentified	0.03
36.053	Isomenthyl acetate	0.10
36.237	Unidentified	0.01
36.413	Nonyl acetate	0.02
36.846	beta-Terpineol	0.02
38.778	alpha-Terpinal acetate	0.01
39.083	Eugenol	0.02
40.241	alpha-Ylangene	0.01
40.664	alpha-Copaene	0.03
41.018	Bourbonene analogue	0.01
41.174	beta-Bourbonene	0.07
41.382	Unidentified	0.01
41.565	beta-Elemene	0.03
42.398	Cyprene	0.02
42.850	Perillyl acetate	0.02
43.463	beta-Caryophyllene	2.09
43.965	Unidentified	0.01
44.108	beta-Copaene	0.02
45.000	Isogermacrene D	0.01
45.424	Unidentified	0.01
45.589	trans-beta-Farnesene	0.12
45.700	alpha-Humulene	0.05
46.934	gamma-Murolene	0.01
47.300	Germacrene D	0.66
47.634	5-Methyl-2,4-diisopropylphenol	0.01
48.191	Bicyclogermacrene	0.10
48.398	epsilon-Amorphene	0.07
49.270	gamma-Cadinene	0.01
49.580	delta-Cadinene	0.05
52.143	trans-Nerolidol	0.01
53.027	Spathulenol	0.01
53.333	Caryophyllene oxide	0.03
54.065	Viridiflorol	0.05
57.556	Cadin-4-en-10-ol	0.02
62.075	Unidentified	0.01
		100.00