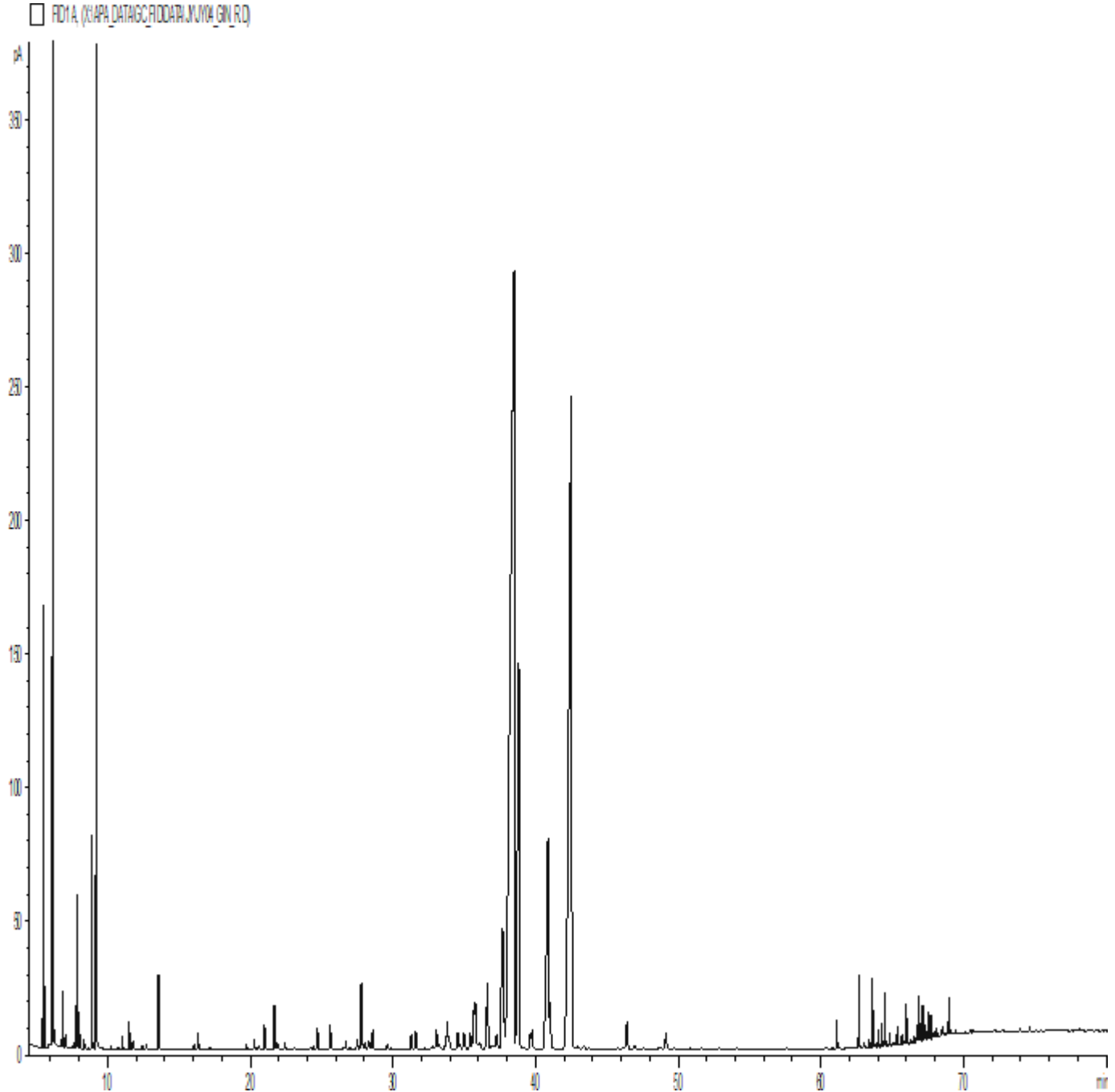


GCMS ANALYSIS

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) – 11063

DATE: January 2, 2024



Due to volume turnover, this report is not lot specific, it is representative of the quality of this oil produced by the manufacturer of this product, Specific lots may vary slightly as is the case in natural products,

GCMS ANALYSIS (cont'd)

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) – 11063

Peak	RT (min)	COMPOUND name	%
1	5.39	TRICYCLENONE	0.11
2	5.55	alpha-PINENE	1.76
3	6.16	CAMPHERE	6.08
4	6.29	HEXANAL	0.09
5	6.84	beta-PINENE	0.26
6	7.05	SABINENE	0.06
7	7.55	MENTHATRIENE ISOMER	0.01
8	7.66	delta3-CARENE	0.02
9	7.85	beta-MYRCENE	0.75
10	8.03	alpha-PHELLANDRENE	0.19
11	8.11	psi-LIMONENE	0.02
12	8.37	2-HEPTANONE	0.06
13		alpha-TERPINENE	
14	8.91	LIMONENE	1.20
15	9.22	1,8-CINEOLE	2.86
16	9.30	beta-PHELLANDRENE	3.24
17	10.26	gamma-TERPINENE	0.03
18	11.05	p-CYMENE	0.08
19	11.52	TERPINOLENE	0.18
20	11.78	OCTANAL	0.07
21	12.44	1,3,7-NONATRIENE, 4,8-DIMETHYL-	0.03
22	12.72	2-HEPTANOL	0.05
23	13.57	5-HEPTEN-2-ONE, 6-METHYL-	0.53
24	14.33	ALIPHATIC ESTER	0.01
25	16.07	2-NONANONE	0.04
26	16.35	ROSEFURAN	0.13
27	17.18	PERILLENE	0.02
28	19.74	alpha-CUBEBENE	0.05
29	20.29	delta-ELEMENE	0.10
30	20.58	SESQUITERPENE	0.03

Disclaimer & Caution

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GCMS ANALYSIS (cont'd)

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) – 11063

Peak	RT (min)	COMPOUND name	%
31	21.00	ISOLEDENE	0.19
32	21.02	CITRONELLAL	0.06
33	21.11	YLANGENE	0.01
34	21.69	alpha-COPAENE	0.46
35	21.90	DECANAL	0.12
36	22.42	CAMPHOR	0.09
37	22.67	beta-BOURBONENE	0.02
38	23.10	2-NONANOL	0.05
39	23.46	COMPOUND Mw=152	0.02
40	24.23	SESQUITERPENE	0.03
41	24.42	beta1-CUBEBENE	0.04
42	24.71	LINALOOL	0.22
43	25.61	alpha-cis-BERGAMOTENE	0.29
44	26.26	TERPENIC COMPOUND	0.02
45	26.54	SESQUITERPENE	0.02
46	26.70	BORNYL ACETATE	0.11
47	26.98	FENCHOL	0.04
48	27.50	alpha-trans-BERGAMOTENE	0.13
49	27.79	beta-ELEMENE	0.84
50	28.05	CAMPHENE HYDRATE	0.08
51	28.28	COMPOUND Mw=166	0.10
52	28.39	beta-CARYOPHYLLENE	0.09
53	28.59	2-UNDECANONE	0.25
54	28.91	SESQUITERPENE	0.02
55	29.24	SESQUITERPENE Mw=202	0.01
56	29.61	GURJUNENE ISOMER	0.06
57	29.88	MYRTENAL	0.03
58	30.31	SESQUITERPENE	0.02
59	31.30	GERMACRENE A	0.21
60	31.59	ALLO-AROMADENDRENE	0.28

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GCMS ANALYSIS (cont'd)

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) – 11063

Peak	RT (min)	COMPOUND name	%
61	32.25	SESQUITERPENE	0.02
62	32.69	SESQUITERPENE	0.03
63	32.81	GURJUNENE ISOMER	0.04
64	33.05	FARNESENE ISOMER	0.30
65	33.23	CITRONELLYL ACETATE	0.07
66	33.25	alpha-HUMULENE	0.03
67	33.66	SESQUITERPENE	0.05
68	33.81	E-beta-FARNESENE	0.42
69	33.95	gamma-SELINENE	0.14
70	34.54	NERAL	0.23
71	34.72	Z-beta-FARNESENE	0.09
72	34.99	gamma-MUUROLENE	0.28
73	35.42	gamma-CURCUMENE	0.26
74	35.67	alpha-TERPINEOL	0.48
75	35.78	BORNEOL	0.86
76	36.00	SESQUITERPENE	0.06
77	36.10	ARISTOLOCHENE ISOMER	0.11
78	36.63	GERMACRENE D	1.09
79	36.92	SESQUITERPENE	0.08
80	37.09	SESQUITERPENE	0.03
81	37.27	SESQUITERPENE	0.28
82	37.69	SESQUITERPENE	3.08
83	38.50	alpha-ZINGIBERENE	31.60
84	38.83	beta-BISABOLENE	6.65
85	38.85	GERANIAL	0.41
86	39.65	SESQUITERPENE	0.20
87	39.76	beta-CURCUMENE	0.27
88	40.88	E,E-alpha-FARNESENE	4.48
89	41.04	GERANYL ACETATE	0.51
90	41.05	delta-CADINENE	0.10

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GCMS ANALYSIS (cont'd)

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Peak	RT (min)	COMPOUND name	%
91	41.05	gamma-CADINENE	0.20
92	41.08	7-epi-alpha-SELINENE	0.14
93	41.10	CITRONELLOL	12.56
94	42.50	beta-SESQUIPELLANDRENE	7.04
95	42.55	alpha-CURCUMENE	0.05
96	42.96	CADINA-1,4-DIENE	0.07
97	43.38	MYRTENOL	0.02
98	43.73	alpha-AMORPHENE	0.02
99	45.79	2-TRIDECANONE	0.02
100	46.07	COMPOUND Mw=220	0.45
101	46.42	GERMACRENE B	0.08
102	46.99	cis-CALAMENENE	0.02
103	47.59	trans-CALAMENENE	0.02
104	48.73	AROMATIC COMPOUND	0.24
105	49.14	GERANIOL	0.24
106	49.74	E-GERANYL ACETONE	0.02
107	50.87	TERPENIC COMPOUND	0.02
108	51.63	AROMATIC COMPOUND	0.03
109	52.86	Epi-CUBEBOL	0.03
110	54.15	alpha-CALACORENE	0.03
111	57.62	CUBEBOL	0.03
112	60.39	COMPOUND Mw=200	0.03
113	60.82	IONONE ISOMER	0.02
114	61.13	7-epi-SESQUISABINENE HYDRATE	0.12
115	61.15	AROMATIC COMPOUND	0.12
116	61.76	COMPOUND Mw=220	0.01
117	62.67	NEROLIDOL	0.43
118	62.78	TERPENIC COMPOUND	0.02
119	63.05	CAPRYLIC ACID	0.06
120	63.29	Epi-CUBENOL	0.01

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GCMS ANALYSIS (cont'd)

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) – 11063

Peak	RT (min)	COMPOUND name	%
121	63.41	SESQUITERPENOL	0.05
122	63.63	ELEMOL	0.40
123	63.78	COMPOUND Mw=218	0.02
124	63.85	AROMATIC COMPOUND	0.03
125	64.02	COMPOUND Mw=222	0.11
126	64.25	10-epi-gamma-EUDESOL	0.13
127	64.37	SESQUITERPENOL	0.03
128	64.52	beta-SESQUIPELLANDROL	0.29
129	64.68	COMPOUND Mw=220	0.01
130	64.86	SESQUITERPENOL	0.13
131	64.97	SESQUITERPENOL	0.02
132	65.03	SESQUITERPENOL	0.02
133	65.11	SESQUITERPENOL	0.04
134	65.26	SESQUITERPENOL	0.07
135	65.38	beta-BISABOLOL	0.13
136	65.69	gamma-EUDESOL	0.09
137	65.82	T-CADINOL	0.03
138	65.94	HINESOL	0.04
139	66.00	SESQUIPELLANDROL ISOMER	0.22
140	66.08	alpha-MUUROLOL	0.08
141	66.33	4-VINYL-GUAIACOL	0.03
142	66.49	AROMATIC COMPOUND	0.03
143	66.67	SESQUITERPENOL	0.04
144	66.72	alpha-BISABOLOL	0.04
145	66.77	alpha-EUDESOL	0.08
146	66.88	beta-EUDESOL	0.34
147	66.98	SESQUITERPENOL	0.01
148	67.14	SESQUITERPENIC OXIDE	0.20
149	67.29	SESQUITERPENOL	0.10
150	67.35	SESQUITERPENIC COMPOUND	0.03

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GCMS ANALYSIS (cont'd)

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) – 11063

Peak	RT (min)	COMPOUND name	%
151	67.49	SESQUITERPENIC COMPOUND	0.06
152	67.59	AROMATIC COMPOUND	0.19
153	67.78	SESQUITERPENIC COMPOUND	0.13
154	67.88	AROMATIC COMPOUND	0.02
155	68.06	GERANYL-p-CYMENE	0.06
156	68.18	AROMATIC COMPOUND	0.03
157	68.51	GERANIC ACID	0.05
158	68.60	AROMATIC COMPOUND	0.02
159	68.97	ZINGIBERENOL	0.18
160	69.09	AROMATIC COMPOUND	0.03
161	69.24	COMPOUND Mw=220	0.01
162	69.47	COMPOUND Mw=218	0.02
163	70.50	TERPENIC ALCOHOL	0.02
164	70.64	LAURIC ACID	0.02
165	73.95	XANTHORRHIZOL	0.03
166	74.64	ACORENONE	0.04
167	78.08	ZINGIBEROL	0.03
		TOTAL	99.86

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