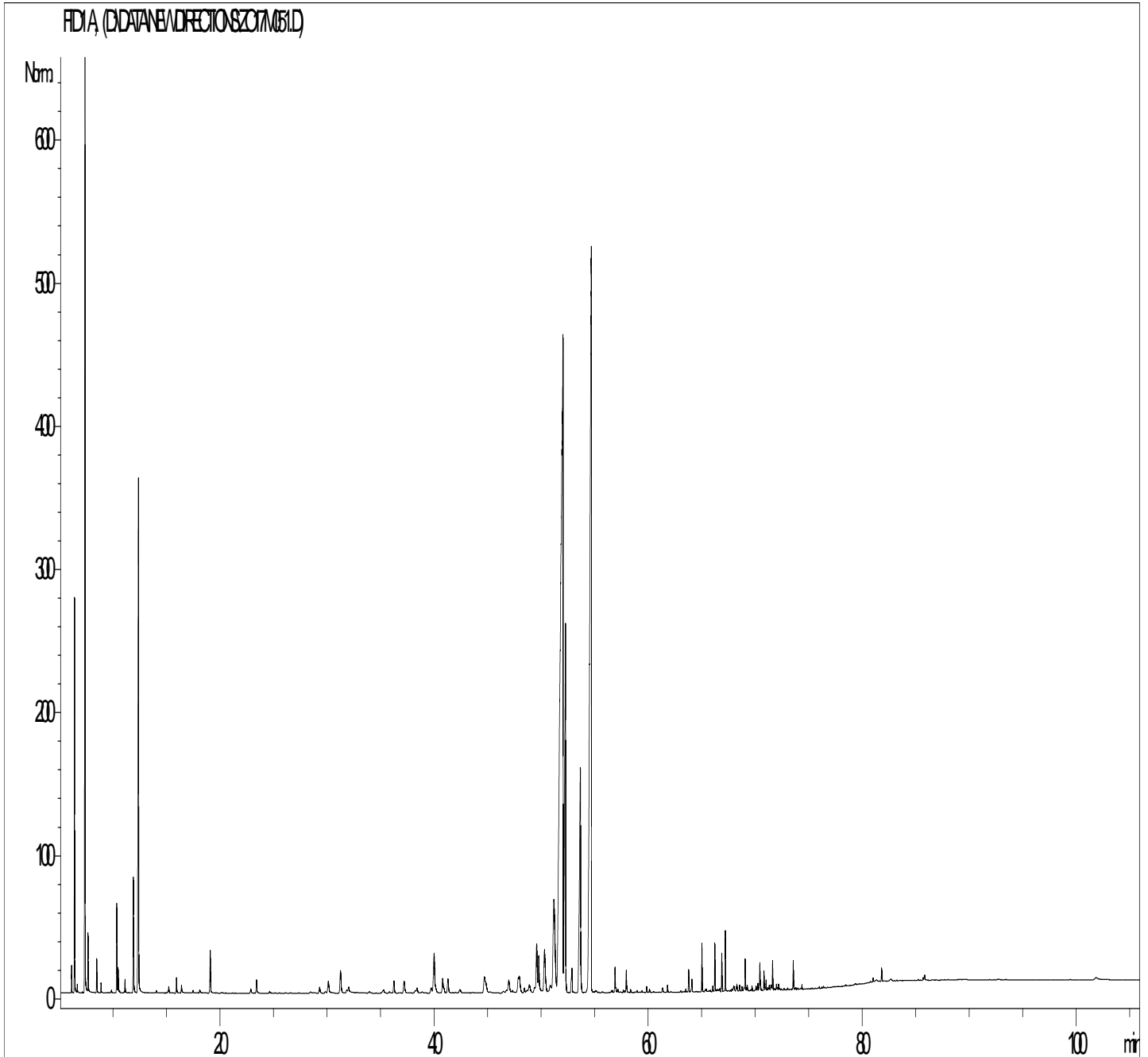




GCMS ANALYSIS

PRODUCT NAME: GINGER ORGANIC ESSENTIAL OIL - 50012

DATE: July 21, 2017



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 ORGANIC ESSENTIAL OIL - 50012

Peak	RT (min)	Compound name	%
1	6,1	TRICYCLENE	0,15
2	6,4	α-PINENE	2,26
3	6,5	α -THUYENE	0,02
4	6,6	TOLUENE	0,06
5	7,1	α -FENCHENE	0,01
6	7,4	CAMPHENE	6,88
7	7,7	HEXANAL	0,41
8	8,5	β -PINENE	0,25
9	8,8	SABINENE	0,07
10	9,8	MENTHATRIENE ISOMER	0,01
11	9,9	Δ 3-CARENE	0,02
12	10,3	β -MYRCENE	0,69
13	10,5	α -PHELLANDRENE	0,22
14	10,6	ψ -LIMONENE	0,03
15	11,0	α -TERPINENE	0,01
16	11,1	2-HEPTANONE	0,11
17	11,9	LIMONENE	1,13
18	12,2	1,8-CINEOLE	2,03
19	12,4	β-PHELLANDRENE	4,07
20	14,0	γ -TERPINENE	0,02
21	15,0	2-HEPTYL ACETATE	0,01
22	15,1	BORNYL METHYL ETHER	0,02
23	15,2	p-CYMENE	0,06
24	15,9	TERPINOLENE	0,15
25	16,4	OCTANAL	0,08
26	17,5	1,3,7-NONATRIENE, 4,8-DIMETHYL	0,03
27	18,1	2-HEPTANOL	0,04
28	19,1	5-HEPTEN-2-ONE, 6-METHYL-	0,47
29	22,8	2-NONANONE	0,06
30	23,4	GALBANOLENE	0,16

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GCMS ANALYSIS (cont'd.)
PRODUCT NAME: GINGER ORGANIC ESSENTIAL OIL - 50012

Peak	RT (min)	Compound name	%
31	24,6	PERILLENE	0,02
32	26,1	α ,p-DIMETHYLSTYRENE	0,01
33	28,4	α -CUBEBENE	0,02
34	29,3	δ -ELEMENE	0,10
35	29,8	CITRONELLAL	0,02
36	30,1	CYCLOSATIVENE	0,26
37	30,2	YLANGENE	0,01
38	31,3	α -COPAENE	0,44
39	31,8	DECANAL	0,05
40	32,0	CAMPHOR	0,12
41	33,9	2-NONANOL	0,03
42	35,3	β 1-CUBEBENE	0,08
43	35,8	Cis-THUYANOL	0,02
44	36,3	LINALOOL	0,18
45	36,7	COMPONENT Mw=162	0,01
46	37,2	α ,cis-BERGAMOTENE	0,26
47	38,2	ϵ -CADINENE	0,05
48	38,4	BORNYL ACETATE	0,10
49	38,9	SESQUITERPENE	0,04
50	39,7	α -trans-BERGAMOTENE	0,11
51	40,0	β-ELEMENE	0,90
52	40,2	β -CARYOPHYLLENE	0,04
53	40,8	COMPONENT Mw=166	0,25
54	40,9	TERPINENE-4-OL	0,06
55	41,3	2-UNDECANONE	0,26
56	42,0	SESQUITERPENE	0,02
57	42,4	GURJUNENE ISOMER	0,09
58	43,5	Trans-p-MENTH-2-EN-1-OL	0,02
59	44,7	GERMACRENE A	0,36
60	44,8	ALLO-AROMADENDRENE	0,26

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GCMS ANALYSIS (cont'd.)
PRODUCT NAME: GINGER ORGANIC ESSENTIAL OIL - 50012

Peak	RT (min)	Compound name	%
61	45,2	SESQUITERPENE	0,04
62	46,5	FARNESENE ISOMER	0,05
63	46,8	SESQUITERPENE	0,06
64	46,9	E- β -FARNESENE	0,32
65	47,3	α -HUMULENE	0,04
66	47,8	2-OCTENAL, 2-BUTYL-	0,23
67	47,9	γ -SELINENE + FARNESENE ISOMER	0,40
68	48,4	NERAL	0,07
69	48,7	Z- β -FARNESENE	0,06
70	48,9	γ -MUUROLENE + γ -CURCUMENE	0,25
71	49,4	α -TERPINEOL	0,11
72	49,5	BORNEOL	0,94
73	49,8	ARISTOLOCHENE ISOMER	0,66
74	50,3	GERMACRENE D	1,12
75	50,8	SESQUITERPENE	0,25
76	51,2	γ-MUUROLENE	3,19
77	52,0	α-ZINGIBERENE	30,17
78	52,2	GERANIAL	6,58
79	52,3	β-BISABOLENE	
80	52,4	SESQUITERPENE	0,08
81	52,8	β -CURCUMENE	0,15
82	52,9	SESQUITERPENE	0,25
83	53,6	E,E-α-FARNESENE	4,42
84	53,7	δ -CADINENE + γ -CADINENE	0,20
85	53,8	α -PANASINSEN	0,15
86	54,0	CITRONELLOL	0,02
87	54,5	β-SESQUIPELLANDRENE	19,73
88	54,6	α-CURCUMENE	
89	54,7	MYRTENOL	0,02
90	54,9	CADINA-1,4-DIENE	0,01

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GCMS ANALYSIS (cont'd.)
PRODUCT NAME: GINGER ORGANIC ESSENTIAL OIL - 50012

Peak	RT (min)	Compound name	%
91	55,1	SESQUITERPENE Mw=202	0,02
92	55,2	SESQUITERPENE	0,02
93	55,7	SESQUITERPENE Mw=202	0,01
94	56,5	2-TRIDECANONE	0,02
95	56,7	Trans-CARVEOL	0,03
96	56,9	GERMACRENE B	0,27
97	57,0	CALAMENENE	0,05
98	57,2	SESQUITERPENE Mw=202	0,04
99	57,7	ACID COMPONENT	0,02
100	57,8	p-CYMENE-8-OL	0,02
101	57,9	GERANIOL	0,22
102	58,0	ALIPHATIC ESTER	0,03
103	58,3	E-GERANYLACETONE	0,03
104	58,9	SESQUITERPENIC OXIDE	0,02
105	59,4	AROMATIC COMPONENT	0,02
106	59,8	Épi-CUBEBOL	0,06
107	60,1	SESQUITERPENIC OXIDE	0,04
108	61,3	SESQUITERPENOL	0,08
109	61,8	CUBEBOL	0,08
110	63,0	SESQUITERPENOL	0,02
111	63,5	SESQUITERPENONE	0,04
112	63,8	SESQUISABINENE HYDRATE	0,21
113	64,0	SESQUITERPENOL	0,15
114	65,0	NEROLIDOL	0,37
115	65,3	GERMACRA-1,5-DIEN-4-OL	0,03
116	65,5	EUDESMOL ISOMER	0,03
117	65,7	SESQUITERPENOL	0,04
118	65,8	SESQUITERPENOL	0,02
119	66,0	SESQUITERPENOL	0,06
120	66,2	ELEMOL	0,43

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GCMS ANALYSIS (cont'd.)
PRODUCT NAME: GINGER ORGANIC ESSENTIAL OIL - 50012

Peak	RT (min)	Compound name	%
121	66,4	SESQUITERPENONE	0,03
122	66,5	SESQUITERPENIC EPOXIDE	0,03
123	66,7	SESQUITERPENIC EPOXIDE	0,04
124	66,8	7-épi-SESQUISABINENE HYDRATE +10-épi- γ -EUDES,	0,34
125	67,2	β -SESQUIPELLANDROL	0,54
126	67,7	SESQUITERPENIC EPOXIDE	0,02
127	67,8	SESQUITERPENOL	0,03
128	68,0	SESQUITERPENIC EPOXIDE	0,11
129	68,2	CADINOL ISOMER	0,04
130	68,3	SESQUITERPENOL	0,08
131	68,5	AROMATIC COMPONENT	0,07
132	68,8	γ -EUDESMOL	0,06
133	68,9	T-CADINOL	0,05
134	69,0	SESQUIPELLANDROL ISOMER + CARVACROL	0,34
135	69,3	SESQUITERPENOL	0,08
136	69,7	α -MUUROL	0,05
137	70,0	Cis- α -BISABOL	0,02
138	70,1	α -BISABOL	0,04
139	70,2	α -EUDESMOL	0,07
140	70,4	β -EUDESMOL	0,28
141	70,5	α -CADINOL	0,05
142	70,8	SESQUITERPENIC EPOXIDE	0,18
143	71,0	EUDESMA-7-EN-4-OL	0,12
144	71,2	SESQUITERPENIC EPOXIDE Mw=202	0,03
145	71,3	GERANYL-p-CYMENE	0,07
146	71,4	SESQUITERPENIC EPOXIDE	0,05
147	71,5	ZINGIBERENONE	0,04
148	71,6	SESQUITERPENIC EPOXIDE	0,27
149	71,8	SESQUITERPENOL Mw=222	0,03
150	71,9	SESQUITERPENOL	0,06

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: GINGER ORGANIC ESSENTIAL OIL - 50012

Peak	RT (min)	Compound name	%
151	72,1	SESQUITERPENOL	0,02
152	72,2	GERANYL-p-CYMENE ISOMER	0,06
153	72,3	SESQUITERPENOL	0,02
154	72,7	AROMATIC COMPONENT	0,02
155	73,0	AROMATIC COMPONENT	0,02
156	73,6	ZINGIBERENOL	0,26
157	73,8	SESQUITERPENOL	0,03
158	74,4	ALIPHATIC ALCOHOL	0,04
159	76,0	ALIPHATIC ALCOHOL	0,01
160	76,4	AROMATIC COMPONENT	0,02
161	81,0	XANTHORRHIZOL	0,03
162	81,8	ACORENONE	0,11
163	82,6	ZINGERONE	0,06
164	85,7	PALMITIC ACID	0,02
165	85,8	ZINGIBEROL	0,05
166	101,8	GINGEROL	0,09
		TOTAL	99,85

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