



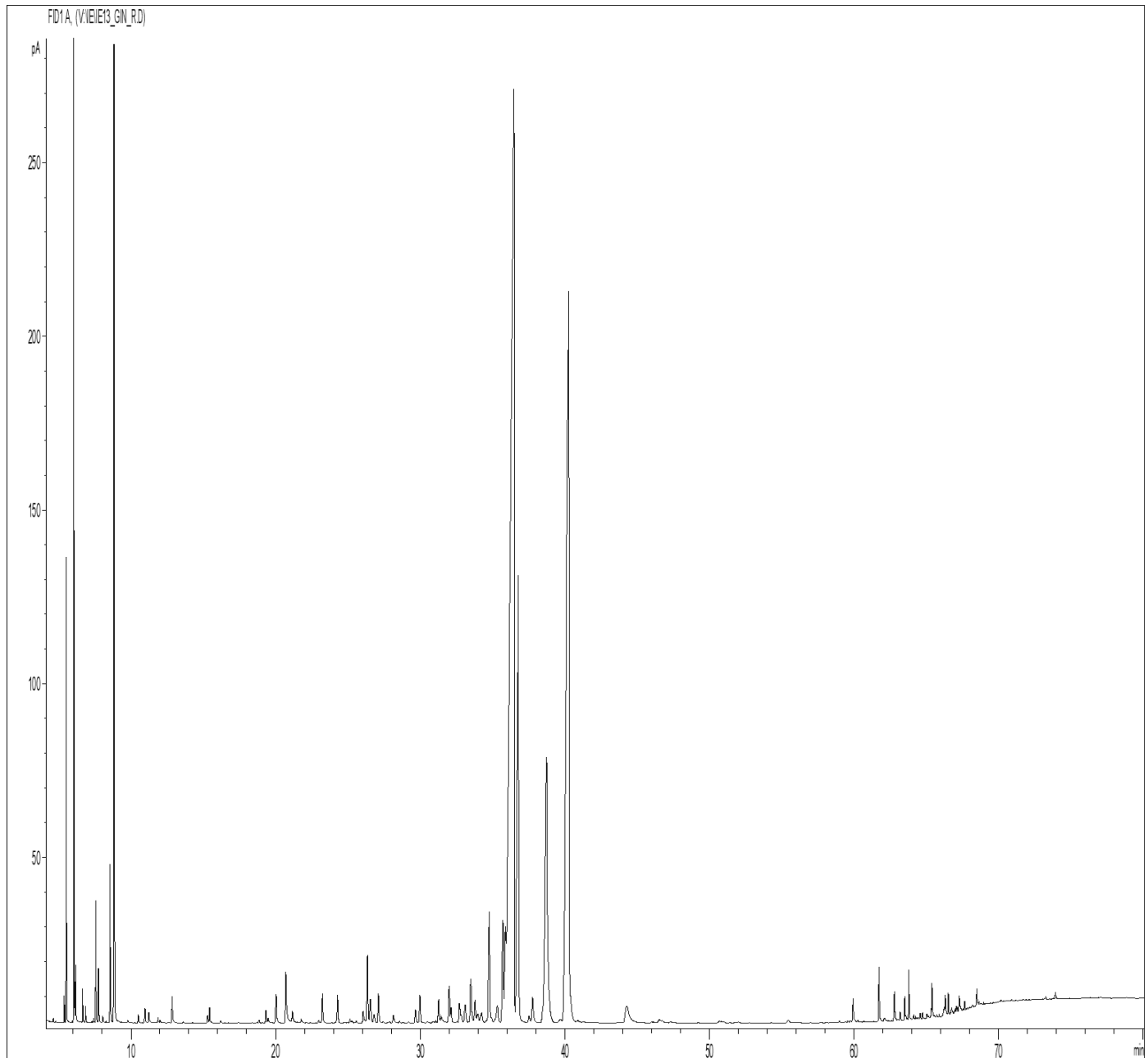
NEW DIRECTIONS
A R O M A T I C S

NATURAL INGREDIENTS ETHICALLY SOURCED

GCMS ANALYSIS

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) - VERIFIED BY ECOCERT/COSMOS
APPROVED - 11063

DATE: August 18, 2022



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,



www.newdirectionsaromatics.com

Tel: 1-800-246-7817

Fax: 1-800-246-8207

GCMS ANALYSIS (cont'd)

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) - VERIFIED BY ECOCERT/COSMOS APPROVED - 11063

Peak	RT (min)	COMPOUND name	%
1	5,39	TRICYCLENE	0,10
2	5,53	alpha-PINENE	1,74
3	5,67	alpha-THUYENE	0,01
4	6,06	CAMPHENE	4,35
5	6,17	HEXANAL	0,31
6	6,67	beta-PINENE	0,15
7	6,86	SABINENE	0,07
8	7,42	delta3-CARENE	0,02
9	7,58	beta-MYRCENE	0,56
10	7,76	alpha-PHELLANDRENE	0,27
11	7,82	psi-LIMONENE	0,04
12	8,06	2-HEPTANONE	0,02
13	8,10	alpha-TERPINENE	0,03
14	8,56	LIMONENE	0,98
15	8,83	1,8-CINEOLE	6,23
16		beta-PHELLANDRENE	
17	9,79	gamma-TERPINENE	0,02
18	10,50	p-CYMENE	0,07
19	10,96	TERPINOLENE	0,12
20	11,23	OCTANAL	0,09
21	11,86	1,3,7-NONATRIENE, 4,8-DIMETHYL-	0,03
22	12,00	2-HEPTANOL	0,02
23	12,84	5-HEPTEN-2-ONE, 6-METHYL-	0,23
24	15,29	2-NONANONE	0,06
25	15,43	ROSEFURAN	0,13
26	16,20	PERILLENE	0,02
27	18,86	alpha-CUBEBENE	0,03
28	19,34	delta-ELEMENE	0,11
29	19,49	CITRONELLAL	0,05
30	20,04	BICYCLOELEMENE	0,29
31		ISOLEDENE	

Disclaimer & Caution

Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources, New Directions Aromatics Inc, provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc, is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc, shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc, shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the Customer hereby agrees that Jurisdiction is limited to the province of Ontario, Canada

GCMS ANALYSIS (cont'd)

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) - VERIFIED BY ECOCERT/COSMOS APPROVED - 11063

Peak	RT (min)	COMPOUND name	%
32	20,14	YLANGENE	0,02
33	20,71	alpha-COPAENE	0,49
34	20,78	DECANAL	0,14
35	21,17	CAMPHOR	0,14
36	21,78	2-NONANOL	0,04
37	22,99	TERPENIC COMPOUND	0,03
38	23,25	beta1-CUBEBENE	0,12
39	23,29	LINALOOL	0,17
40	24,30	alpha-cis-BERGAMOTENE	0,28
41	25,15	epsilon-CADINENE	0,04
42	25,29	BORNYL ACETATE	0,02
43	25,59	ELEMENE ISOMER	0,02
44	26,06	alpha-trans-BERGAMOTENE	0,12
45	26,18	beta-CARYOPHYLLENE	0,04
46	26,36	beta-ELEMENE	0,74
47	26,56	ROSEFURAN OXIDE	0,30
48	26,82	TERPINENE-4-OL	0,14
49	27,12	2-UNDECANONE	0,32
50	27,45	COMPOUND Mw=152	0,02
51	27,88	SESQUITERPENE	0,01
52	28,15	GURJUNENE ISOMER	0,09
53	28,58	MYRTENAL	0,02
54	29,22	cis-p-MENTH-2-EN-1-OL	0,01
55	29,69	GERMACRENE A	0,15
56	29,99	ALLO-AROMADENDRENE	0,33
57	30,87	MELONOL	0,01
58	31,09	ZONARENE	0,02
59	31,29	FARNESENE ISOMER	0,27
60	31,46	SESQUITERPENE	0,09

Disclaimer & Caution

Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources. New Directions Aromatics Inc. provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the Customer hereby agrees that Jurisdiction is limited to the province of Ontario, Canada.

GCMS ANALYSIS (cont'd)

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) - VERIFIED BY ECOCERT/COSMOS APPROVED - 11063

Peak	RT (min)	COMPOUND name	%
61	31,57	alpha-HUMULENE	0,04
62	31,70	SESQUITERPENE	0,02
63	32,01	E-beta-FARNESENE	0,42
64	32,15	gamma-SELINENE	0,18
65	32,55	SESQUITERPENE	0,01
66	32,73	NERAL	0,26
67	32,85	Z-beta-FARNESENE	0,09
68	33,12	gamma-MUUROLENE	0,28
69	33,51	BORNEOL	0,63
70	33,80	alpha-TERPINEOL	0,30
71	33,99	CURCUMENE ISOMER	0,15
72	34,20	SESQUITERPENE	0,05
73	34,27	ARISTOLOCHENE ISOMER	0,14
74	34,62	SESQUITERPENE	0,02
75	34,79	GERMACRENE D	1,50
76	34,93	SESQUITERPENE	0,05
77	35,20	SESQUITERPENE	0,03
78	35,35	SESQUITERPENE	0,32
79	35,73	SESQUITERPENE	1,29
80	35,91	SESQUITERPENE	1,44
81	36,49	alpha-ZINGIBERENE	33,76
82	36,54	SESQUITERPENE	0,12
83	36,80	beta-BISABOLENE	6,98
84		GERANIAL	
85	37,54	SESQUITERPENE	0,09
86	37,78	SESQUITERPENE	0,37
87	38,51	TERPENIC COMPOUND	0,15
88	38,75	E,E-alpha-FARNESENE	5,78
89		delta-CADINENE	
90	38,76	7-epi-alpha-SELINENE	0,69

Disclaimer & Caution

Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources. New Directions Aromatics Inc. provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the Customer hereby agrees that Jurisdiction is limited to the province of Ontario, Canada.

GCMS ANALYSIS (cont'd)

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) - VERIFIED BY ECOCERT/COSMOS APPROVED - 11063

Peak	RT (min)	COMPOUND name	%
91	39,68	CITRONELLOL	0,07
92	40,27	beta-SESQUIPELLANDRENE	12,68
93	40,37	alpha-CURCUMENE	7,33
94	40,89	SESQUITERPENE Mw=202	0,04
95	40,98	SESQUITERPENE	0,02
96	41,28	SESQUITERPENE Mw=202	0,02
97	44,30	GERMACRENE B	0,57
98	44,51	cis-CALAMENENE	0,07
99	44,69	trans-CALAMENENE	0,03
100	45,99	AROMATIC COMPOUND	0,01
101	46,11	SESQUITERPENE Mw=202	0,01
102	46,53	GERANIOL	0,07
103	46,72	AROMATIC COMPOUND	0,03
104	47,32	E-GERANYL ACETONE	0,02
105	50,68	Epi-CUBEBOL	0,03
106	50,81	SESQUITERPENOL	0,02
107	50,97	SESQUITERPENONE	0,02
108	51,98	alpha-CALACORENE	0,02
109	55,44	CUBEBOL	0,05
110	58,98	COMPOUND Mw=200	0,02
111	59,39	SESQUITERPENOL	0,01
112	59,56	IONONE ISOMER	0,02
113	59,74	SANTALOL ISOMER	0,02
114	59,93	TERPENIC OXIDE	0,13
115	60,00	AROMATIC COMPOUND	0,11
116	60,03	ALIPHATIC ESTER	0,03
117	60,26	KETONIC COMPOUND	0,02
118	61,73	NEROLIDOL	0,35
119	61,79	SESQUITERPENOL	0,03
120	62,08	GERMACRENE D-4-OL	0,02

Disclaimer & Caution

Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources. New Directions Aromatics Inc. provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the Customer hereby agrees that Jurisdiction is limited to the province of Ontario, Canada.

GCMS ANALYSIS (cont'd)

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) - VERIFIED BY ECOCERT/COSMOS APPROVED - 11063

Peak	RT (min)	COMPOUND name	%
121	62,13	AROMATIC COMPOUND	0,03
122	62,26	AROMATIC COMPOUND	0,01
123	62,76	GERANYL-alpha-TERPINENE ISOMER	0,03
124	62,80	ELEMOL	0,22
125	62,87	SESQUITERPENOL	0,02
126	62,99	SESQUITERPENOL	0,01
127	63,06	GUAIOL	0,01
128	63,19	10-epi-gamma-EUDESOL	0,07
129	63,50	TERPENIC OXIDE	0,16
130	63,59	TERPENIC COMPOUND	0,03
131	63,79	beta-SESQUIPELLANDROL	0,31
132	63,91	AROMATIC COMPOUND	0,01
133	64,13	EUDESOL ISOMER	0,04
134	64,26	SESQUITERPENOL	0,02
135	64,41	SESQUITERPENOL	0,01
136	64,58	TERPENIC COMPOUND	0,05
137	64,74	beta-BISABOLOL	0,05
138	65,03	MINT SULFIDE	0,03
139	65,06	gamma-EUDESOL	0,01
140	65,15	T-CADINOL	0,02
141	65,34	METHYLISOEUGENOL	0,05
142	65,40	SESQUIPELLANDROL ISOMER	0,21
143	65,45	4-VINYL-GUAIACOL	0,03
144	65,56	SESQUITERPENOL	0,02
145	65,73	SESQUITERPENOL	0,02
146	65,89	SESQUITERPENOL	0,02
147	66,18	alpha-BISABOLOL	0,02
148	66,23	alpha-EUDESOL	0,06
149	66,31	beta-EUDESOL	0,12
150	66,33	alpha-CADINOL	0,06

Disclaimer & Caution

Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources. New Directions Aromatics Inc. provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the Customer hereby agrees that Jurisdiction is limited to the province of Ontario, Canada

GCMS ANALYSIS (cont'd)

PRODUCT NAME: GINGER ROOT ESSENTIAL OIL (DRIED) - VERIFIED BY ECOCERT/COSMOS APPROVED - 11063

Peak	RT (min)	COMPOUND name	%
151	66,42	SESQUITERPENOL	0,01
152	66,52	TERPENIC OXIDE	0,13
153	66,70	SESQUITERPENOL	0,01
154	66,74	EUDESMA-7(11)-EN-4-OL	0,04
155	66,80	AROMATIC COMPOUND	0,02
156	67,00	GERANYL- α -TERPINENE	0,03
157	67,08	CAPRIC ACID	0,04
158	67,15	COMPOUND Mw=152	0,03
159	67,28	AROMATIC COMPOUND	0,13
160	67,37	DITERPENIC COMPOUND	0,04
161	67,55	AROMATIC COMPOUND	0,01
162	67,66	GERANYL-p-CYMENE	0,06
163	67,82	TERPENIC OXIDE	0,02
164	67,97	AROMATIC COMPOUND	0,01
165	68,19	ISOEUGENOL	0,03
166	68,48	ZINGIBERENOL	0,14
167	68,64	AROMATIC COMPOUND	0,02
168	70,16	TERPENIC ALCOHOL	0,02
169	73,26	SESQUITERPENOL	0,01
170	73,32	XANTHORRHIZOL	0,01
171	73,93	ACORENONE	0,06
172	77,02	ZINGIBEROL	0,01
173	77,07	SESQUITERPENOL	0,01
		TOTAL	99,99

Disclaimer & Caution

Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources. New Directions Aromatics Inc. provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the Customer hereby agrees that Jurisdiction is limited to the province of Ontario, Canada.