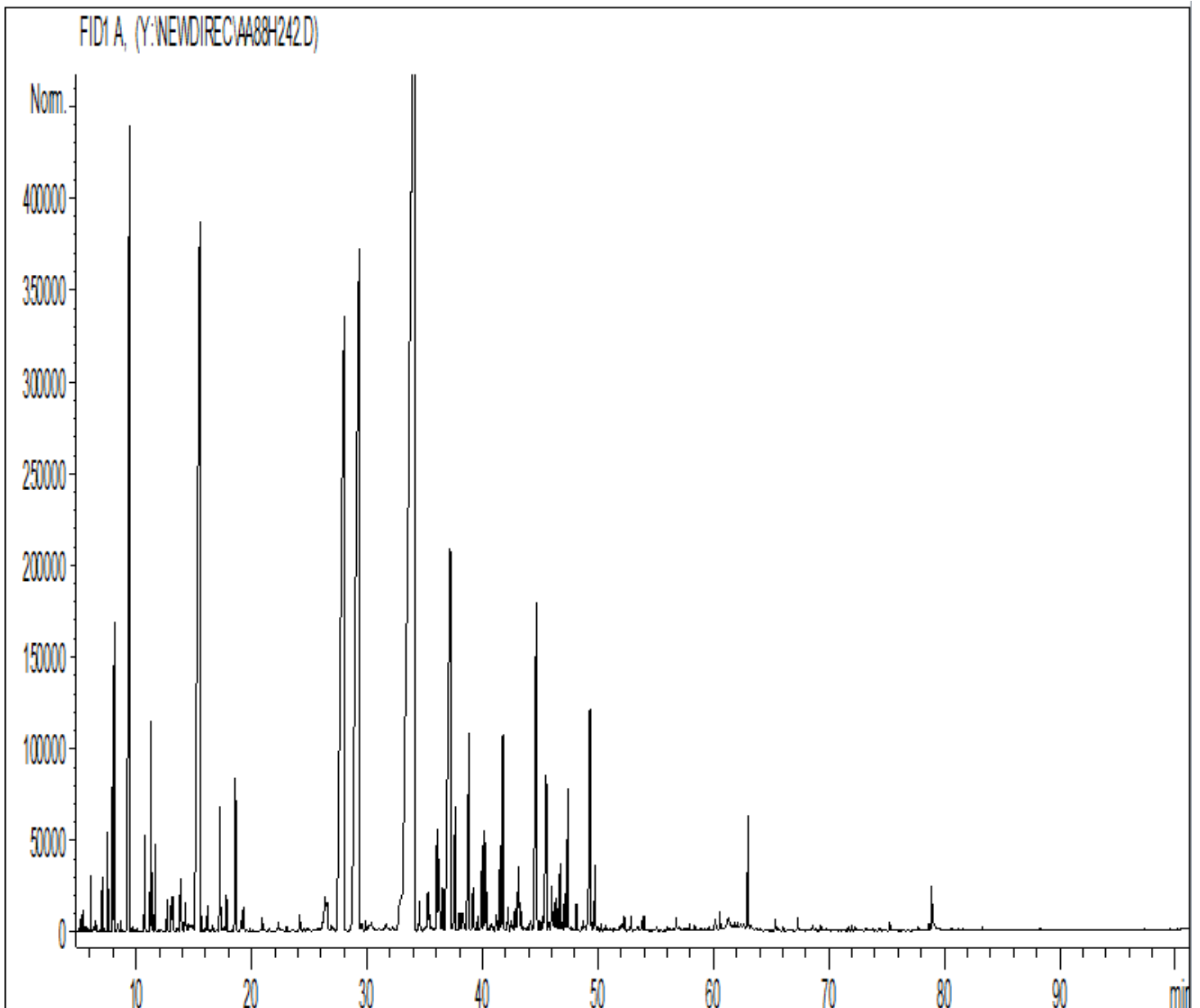




GCMS ANALYSIS

PRODUCT NAME: Armoise Mugwort Essential Oil
DATE: May 16, 2016



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.



Peak	RT (min)	Compound name	%
1	4,5	ACETONE	0,02
2	4,7	1-OCTENE	0,05
3	5,0	FURANE 2-METHYL	0,01
4	5,1	2-BUTENAL	0,03
5	5,3	Z-SALVENE	0,04
6	6,0	HEXENE METHYL Mw=98	0,10
7	6,4	E-SALVENE	0,03
8	7,0	3-METHYL-3-BUTEN-2-ONE Mw=84	0,10
9	7,5	TRICYCLENE	0,26
10	7,9	α -PINENE	0,42
11	8,0	ARTEMISIA TRIENE	0,76
12	8,4	1-DECENE	0,04
13	8,7	ETHYL 2-METHYLBUTYRATE	0,03
14	9,3	ETHYL ISOVALERATE	0,04
15	9,4	CAMPHENE	4,93
16	9,5	ALIPHATIC COMPONENT	0,06
17	9,7	HEXANAL	0,01
18	10,7	β -PINENE	0,31
19	11,3	SABINENE	0,76
20	11,4	PINADIENE	0,15
21	11,5	THUYADIENE	0,02
22	11,6	5-NONEN-2-ONE Mw=140	0,25
23	12,7	HEXAHYDROINDOLE	0,10
24	13,0	β -MYRCENE	0,11
25	13,1	α -PHELLANDRENE	0,18
26	13,5	ψ -LIMONENE	0,03
27	13,8	α -TERPINENE	0,33
28	14,2	2,3-DEHYDRO-1,8-CINEOLE	0,15
29	14,5	BUTANOL 2-METHYL	0,04
30	14,7	FURANIC COMPONENT	0,04
31	14,8	LIMONENE	0,05
32	15,5	1,8-CINEOLE	9,29
33	15,6	MENTHATRIENE ISOMER	0,04
34	16,1	ALKYL COMPONENT	0,06
35	16,2	ETHYL DIMETHYLACRYLATE	0,08
36	16,6	ETHYL TIGLATE	0,03
37	17,0	COMPONENT Mw=122	0,02
38	17,2	γ -TERPINENE	0,55
39	17,6	3-OCTANONE	0,02
40	17,8	ALIPHATIC ESTER	0,13
41	18,6	p-CYMENE	0,68
42	19,1	KETONIC COMPONENT	0,05
43	19,3	TERPINOLENE	0,13
44	19,8	HYDROXYTERPENIC COMPONENT ISOMER	0,01
45	20,9	HYDROXYTERPENIC COMPONENT	0,05

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NEW DIRECTIONS AROMATICS

Peak	RT (min)	Compound name	%
46	20,9	ALIPHATIC ALCOHOL	0,05
47	21,5	AROMATIC COMPONENT	0,02
48	22,3	KETONE ARTEMISIA	0,07
49	23,0	1-HEXANOL	0,02
50	24,1	METHACRYLIC ESTER	0,11
51	24,4	TERPENIC EPOXIDE	0,03
52	24,7	TERPENIC ALCOHOL	0,02
53	24,9	3-HEXEN-1-OL	0,03
54	26,1	YOMOGI ALCOHOL	0,07
55	26,3	SANTOLINA ALCOHOL	0,42
56	26,6	LYRATOL ISOMER	0,18
57	26,9	SANTOLINA EPOXIDE	0,05
58	27,1	ARTEMISYL ACETATE	0,03
59	28,0	α-THUYONE	10,52
60	11,0	PINANONE	0,20
61	29,3	β-THUYONE	11,37
62	29,5	CHRYSANTHENONE ISOMER	0,04
63	29,6	CAMPHENILONE	0,03
64	29,9	α -CUBEBENE	0,06
65	30,3	Trans-THUYANOL	0,18
66	31,6	TERPENIC EPOXIDE	0,10
67	32,2	CYCLOSATIVENE	0,05
68	33,0	α -COPAENE	0,51
69	33,2	ARTEMISIA ALCOHOL	1,30
70	33,3	CYCLOALKYL EPOXYDE Mw=136	1,87
71	33,4	Cis-3-HEXENYL BUTYRATE	0,60
72	33,7	CHRYSANTHENONE	9,22
73	34,1	CAMPHOR	18,12
74	34,5	CAMPHOLENIC ALCOHOL	0,15
75	35,2	Cis-THUYANOL	0,23
76	35,4	LINALOOL	0,10
77	35,6	1-OCTANOL	0,04
78	36,1	HEXENYLIC ESTER	0,63
79	36,3	Trans-p-MENTH-2-EN-1-OL	0,40
80	36,4	PINOCARVONE	0,20
81	37,2	CHRYSANTHENYL ACETATE	4,60
82	37,4	BORNYL FORMIATE	0,05
83	37,6	BORNYL ACETATE	0,64
84	38,0	Cis-VERBENYL ACETATE	0,12
85	38,2	β -ELEMENE	0,12
86	38,3	CAMPHENE HYDRATE	0,07
87	38,8	TERPINENE-4-OL + METHACRYLIC ESTER	1,29
88	39,2	HOTRIENOL	0,24
89	39,6	SESQUITERPENE	0,07
90	40,0	Cis-p-MENTH-2-EN-1-OL	0,41

Disclaimer & Caution

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Peak	RT (min)	Compound name	%
91	40,1	DEHYDROSABINACETONE	0,30
92	40,2	MYRTENAL	0,45
93	40,4	SABINACETONE	0,14
94	41,2	1-NONEN-3-OL	0,14
95	41,5	Trans-VERBENYL ACETATE	0,39
96	41,7	SABINYL ACETATE	0,62
97	41,8	Trans-PINOCARVEOL	0,63
98	42,0	1-NONANOL	0,05
99	42,2	FARNESENE ISOMER	0,09
100	42,5	LAVANDE LACTONE	0,09
101	42,8	δ-TERPINEOL + LAVANDULOL	0,09
102	43,1	Cis-VERBENOL	0,35
103	43,2	Cis-PIPERITOL	0,13
104	43,3	γ-SELINENE	0,09
105	43,8	MYRTENYL ACETATE	0,03
106	44,0	CARVOTANACETONE	0,05
107	44,2	γ-MUUROLENE	0,05
108	44,4	α-TERPINEOL	0,31
109	44,6	BORNEOL	2,78
110	45,0	LEDENE	0,05
111	45,2	VERBENONE	0,09
112	45,5	GERMACRENE D	1,02
113	46,0	SESQUITERPENE	0,25
114	46,2	β-SELINENE	0,16
115	49,7	α-MUUROLENE	0,17
116	46,7	PIPERITONE	0,35
117	46,8	TERPENIC EPOXYDE	0,04
118	47,1	CARVONE	0,19
119	47,4	BICYCLOGERMACRENE	0,71
120	48,1	δ-CADINENE	0,12
121	48,6	γ-CADINENE	0,03
122	48,7	TERPENIC COMPONENT	0,06
123	49,1	LYRATOL	1,16
124	49,2	TERPENIC KETONE	0,05
125	49,4	CUMINAL	0,16
126	49,7	MYRTENOL	0,32
127	50,0	TERPENIC ALCOHOL	0,02
128	50,3	MYRTENOL ISOMER	0,04
129	52,0	TERPENIC COMPONENT	0,06
130	52,4	CALAMENENE	0,02
131	52,8	p-CYMEN-8-OL	0,07
132	53,7	Cis-CARVEOL	0,05
133	54,0	TAGETENONE ISOMER	0,07
134	56,0	AROMATIC COMPONENT Mw=178	0,02
135	56,7	ALIPHATIC KETONE	0,08

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NEW DIRECTIONS AROMATICS

Peak	RT (min)	Compound name	%
136	57,9	Trans-JASMONE	0,04
137	58,4	HEXENYLIC ESTER	0,02
138	60,1	CYCLOALKYL COMPONENT Mw=140	0,09
139	60,6	TERPENIC ALCOHOL	0,09
140	60,7	TERPENIC KETONE Mw=150	0,61
141	61,8	CYCLOALKYL COMPONENT Mw=140 ISOMER	0,02
142	62,1	METHYL FUR-3-YL PENT-1-EN-3-OL	0,02
143	62,4	COMPONENT Mw=234	0,02
144	63,0	DAVANONE	0,67
145	63,2	MENTHADIENOL COMPONENT	0,03
146	65,4	VIRIDIFLOROL	0,06
147	65,6	CUMINOL	0,02
148	66,0	COMPONENT Mw=220	0,02
149	67,3	SPATHULENOL	0,06
150	68,6	EUGENOL	0,03
151	69,3	DIOXOLANE COMPONENT	0,04
152	71,6	CARVACROL	0,02
153	72,0	METHYL ETHYL PHENOL	0,02
154	72,2	COMPONENT Mw=220	0,02
155	74,4	AROMATIC COMPONENT	0,02
156	75,3	ACETYL CYCLOALKYL KETONE COMPONENT	0,04
157	77,7	ACETYL CYCLOALKYL KETONE COMPONENT	0,02
158	78,6	AROMATIC COMPONENT	0,04
159	78,9	CYCLOALKYL ACID Mw=168	0,37
160	83,3	CYCLOALKYL ALCOHOL	0,02
161	88,3	CYCLOPROPANE CARBOXYLIC ACID	0,01
		TOTAL	99,78

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