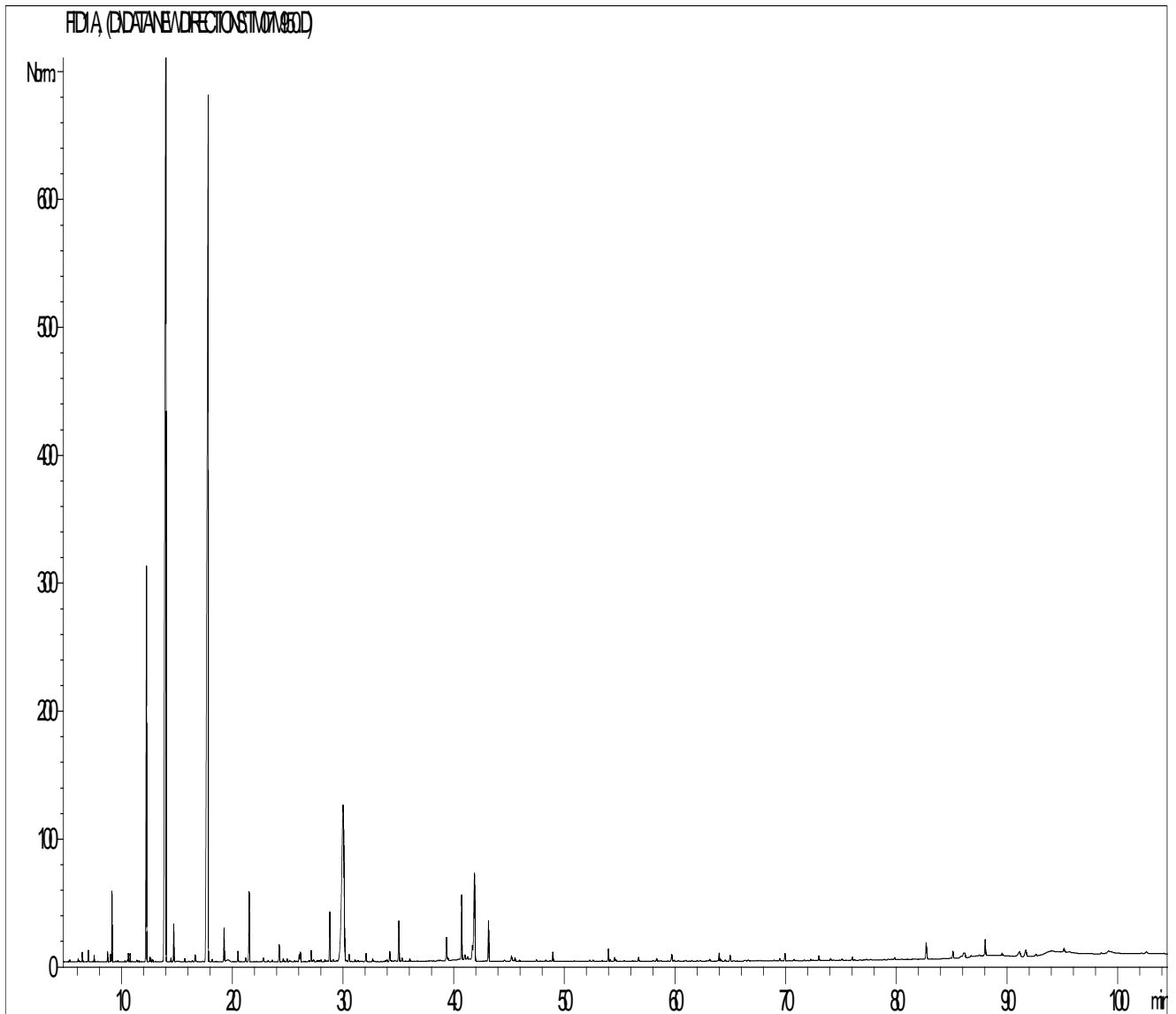




GCMS ANALYSIS

PRODUCT NAME: TAGETES (EGYPTIAN) ESSENTIAL OIL - 11140

DATE: September 06, 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: TAGETES (EGYPTIAN) ESSENTIAL OIL - 11140

Peak	RT (min)	Compound name	%
1	5,3	ETHYL ISOBUTYRATE	0,01
2	6,0	ETHYL BUTYRATE	0,01
3	6,1	METHYL ISOVALERATE	0,02
4	6,4	α -PINENE	0,08
5	6,5	α -THUYENE	0,02
6	7,0	ETHYL 2-METHYLBUTYRATE	0,11
7	7,5	CAMPHENE	0,07
8	8,7	β -PINENE	0,12
9	9,0	ISOAMYL ACETATE	0,09
10	9,1	SABINENE	0,81
11	9,4	4-METHYL-3-PENTEN-2-ONE	0,01
12	10,3	COMPONENT Mw=138	0,01
13	10,5	β -MYRCENE	0,13
14	10,7	α -PHELLANDRENE	0,10
15	11,3	α -TERPINENE	0,02
16	11,5	METHYL CAPROATE	0,01
17	12,2	LIMONENE	6,39
18	12,5	1,8-CINEOLE	0,06
19	12,6	β -PHELLANDRENE	0,05
20	12,8	TERPENE ISOMER	0,03
21	13,9	Cis-β-OCIMENE	33,19
22	14,4	γ -TERPINENE	0,05
23	14,6	Trans- β -OCIMENE	0,52
24	15,6	HEXYL ACETATE	0,02
25	15,7	p-CYMENE	0,03
26	16,3	TERPINOLENE	0,01
27	16,6	OCTANAL	0,12
28	17,8	DIHYDROTAGETONE	29,85
29	18,2	Cis-3-HEXENYL ACETATE	0,03
30	19,2	METHOXY HEXADIENIC COMPONENT Mw=152	0,55

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: TAGETES (EGYPTIAN) ESSENTIAL OIL - 11140

Peak	RT (min)	Compound name	%
31	19,6	METHOXY HEXADIENIC COMPONENT	0,17
32	20,5	TERPENIC EPOXIDE	0,17
33	21,2	ALIPHATIC KETONE	0,06
34	21,5	ALLO-OCIMENE	1,15
35	22,8	PINENE EPOXIDE	0,06
36	23,2	TRIMETHYL ANISALDEHYDE	0,02
37	23,6	ALLO-OCIMENE ISOMER	0,03
38	24,2	METHOXY COMPONENT Mw=152	0,29
39	24,6	ALIPHATIC ALCOHOL	0,05
40	24,9	ALIPHATIC ESTER	0,05
41	25,2	COMPONENT Mw=150	0,02
42	26,0	OCIMENONE ISOMER	0,12
43	26,1	SESQUITERPENE	0,18
44	27,1	PINENOL ISOMER	0,20
45	27,3	SESQUITERPENE	0,05
46	27,6	OCTYL ACETATE	0,03
47	27,8	SESQUITERPENE	0,02
48	28,0	BICYCLOELEMENE	0,03
49	28,3	PINENOL ISOMER	0,04
50	28,8	E-TAGETONE	0,89
51	29,1	TERPENIC EPOXIDE	0,04
52	29,4	AROMATIC COMPONENT	0,03
53	30,0	Z-TAGETONE	10,18
54	30,3	DIHYDROEDULAN ISOMER	0,02
55	30,5	MODHEPHENE	0,14
56	31,1	AROMATIC COMPONENT	0,03
57	31,3	α -ISOCOMENE	0,02
58	32,0	LINALOOL	0,14
59	32,6	1-OCTANOL	0,05
60	33,8	TAGETENONE ISOMER	0,03
61	34,0	BORNYL ACETATE	0,03

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GCMS ANALYSIS (cont'd.)
PRODUCT NAME: TAGETES (EGYPTIAN) ESSENTIAL OIL - 11140

Peak	RT (min)	Compound name	%
62	34,2	TAGETENONE ISOMER Mw=150	0,22
63	34,5	TERPENIC KETONE Mw=150	0,03
64	34,6	TAGETENONE ISOMER	0,07
65	35,0	β -CARYOPHYLLENE	0,85
66	35,3	TERPINENE-4-OL	0,09
67	35,6	ALIPHATIC CETONE	0,04
68	36,0	TERPENIC KETONE	0,05
69	38,6	TERPENIC KETONE	0,03
70	38,8	ESTRAGOL	0,03
71	39,3	α -HUMULENE	0,48
72	39,5	E- β -FARNESENE	0,05
73	40,5	NERAL	0,03
74	40,7	E-TAGETENONE	1,25
75	41,0	BORNEOL	0,11
76	41,2	LEDENE	0,06
77	41,8	Z-TAGETENONE + VERBENONE	4,11
78	41,9	GERMACRENE D	0,27
79	43,1	BICYCLOGERMARENE	0,81
80	44,5	GERANYL ACETATE	0,02
81	44,6	δ -CADINENE	0,02
82	45,2	AROMATIC COMPONENT Mw=166	0,19
83	45,5	TERPENIC ALCOHOL	0,08
84	45,9	SESQUITERPENE Mw=202	0,03
85	47,4	E,E-2,6-DIMETHYL-3,5,7-OCTATRIENE-2-OL	0,03
86	48,3	Z,Z-2,6-DIMETHYL-3,5,7-OCTATRIENE-2-OL	0,03
87	48,7	AROMATIC COMPONENT	0,02
88	49,0	ISOPIPERITENONE	0,18
89	50,9	TAGETENONE ISOMER	0,02
90	52,2	EICOSADIENE ISOMER Mw=278	0,03
91	52,6	PIPERITENONE ISOMER	0,03
92	53,4	HYDROXYCETONIC COMPONENT Mw=168	0,02

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GCMS ANALYSIS (cont'd.)
PRODUCT NAME: TAGETES (EGYPTIAN) ESSENTIAL OIL - 11140

Peak	RT (min)	Compound name	%
93	54,0	EICOSADIENE ISOMER Mw=278	0,25
94	54,2	AROMATIC COMPONENT Mw=166	0,03
95	54,5	PIPERITENONE	0,08
96	54,6	AROMATIC COMPONENT Mw=166	0,03
97	55,4	AROMATIC COMPONENT	0,02
98	56,7	CARYOPHYLLENE EPOXIDE	0,08
99	58,3	SESQUITERPENOL Mw=222	0,05
100	59,7	AROMATIC COMPONENT Mw=164	0,15
101	59,9	NEROLIDOL	0,02
102	60,3	SESQUITERPENONE Mw=218	0,02
103	60,9	GLOBULOL	0,02
104	61,5	VIRIDIFLOROL	0,02
105	62,0	SESQUITERPENOL	0,02
106	62,3	10-épi-γ-EUDESOL	0,02
107	63,1	OXYGENED COMPONENT Mw=220	0,04
108	63,9	SPATHULENOL	0,15
109	64,2	SESQUITERPENONE Mw=218	0,03
110	64,5	PENTADECANONE TRIMETHYL	0,03
111	65,0	SESQUITERPENIC EPOXIDE	0,12
112	65,3	EUGENOL	0,02
113	66,2	T-CADINOL	0,05
114	66,5	SESQUITERPENIC EPOXIDE	0,05
115	69,0	COMPONENT Mw=220	0,02
116	69,5	AROMATIC COMPONENT Mw=166	0,05
117	69,9	LACHNOPHYLLUM METHYL ESTER	0,14
118	70,7	AROMATIC COMPONENT	0,03
119	72,2	AROMATIC COMPONENT Mw=288	0,03
120	73,0	MATRICARIA ESTER	0,10
121	74,1	TAGETENONE COMPONENT Mw=302	0,04
122	75,1	AROMATIC COMPONENT Mw=286	0,04
123	76,0	AROMATIC COMPONENT Mw=286	0,06

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: TAGETES (EGYPTIAN) ESSENTIAL OIL - 11140

Peak	RT (min)	Compound name	%
124	79,8	AROMATIC COMPONENT	0,04
125	82,6	AROMATIC COMPONENT Mw=300	0,15
126	82,7	AROMATIC COMPONENT Mw=302	0,25
127	85,1	TAGETENONE DERIVED COMPONENT	0,15
128	86,1	AROMATIC COMPONENT Mw=304	0,20
129	88,0	AROMATIC COMPONENT Mw=300	0,14
130	88,0	AROMATIC COMPONENT Mw=302	0,35
131	89,5	AROMATIC COMPONENT Mw=300	0,06
132	91,1	AROMATIC COMPONENT Mw=300	0,30
133	91,7	AROMATIC COMPONENT Mw=300	0,29
134	95,1	AROMATIC COMPONENT Mw=300	0,10
		TOTAL	99,98

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