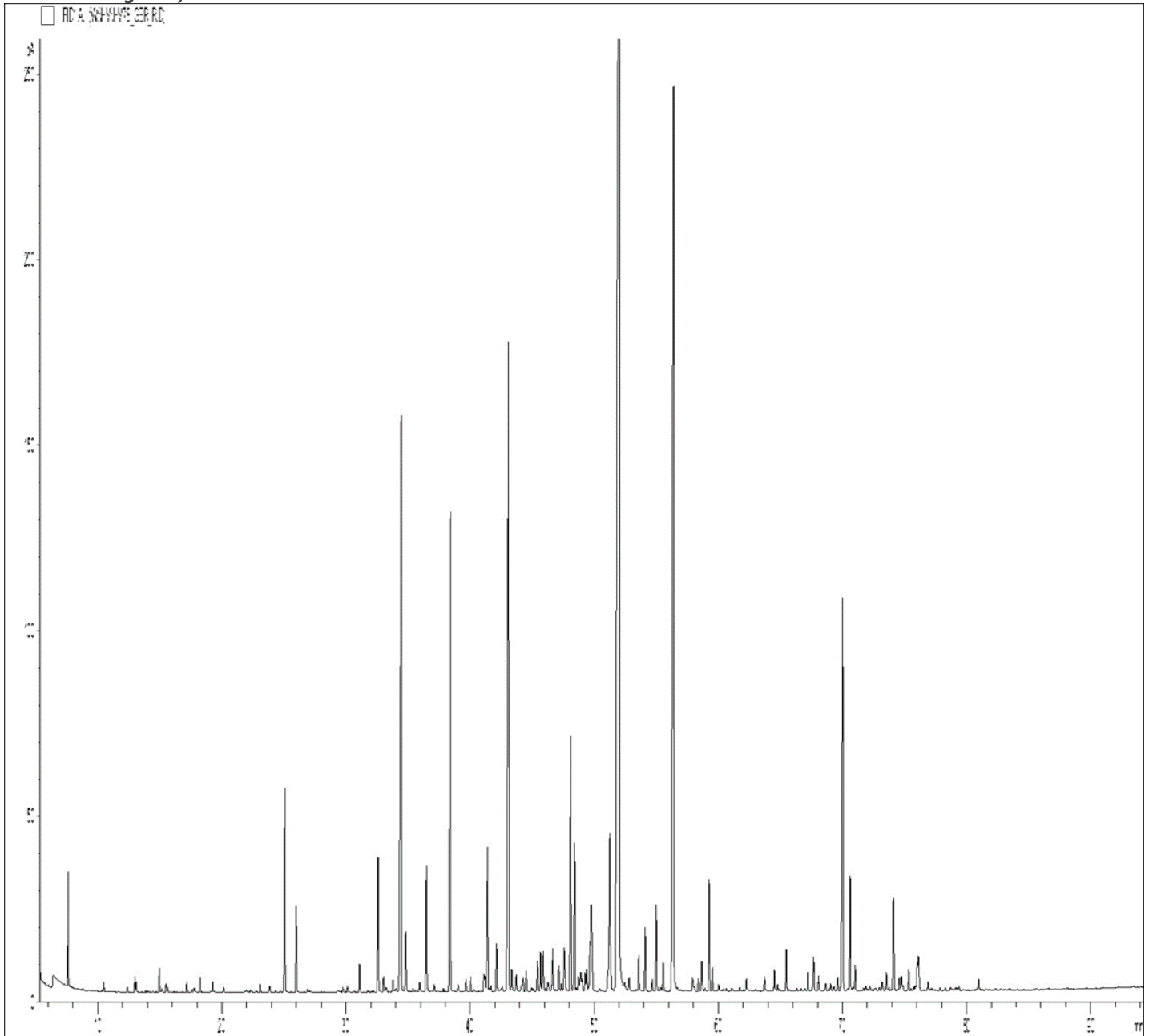


GCMS ANALYSIS

PRODUCT NAME: GERANIUM ESSENTIAL OIL (EGYPT) Verified By ECOCERT / Cosmos  
Approved- 11062  
DATE: May 24, 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,*

GCMS ANALYSIS (cont'd.)

PRODUCT NAME: GERANIUM ESSENTIAL OIL (EGYPT) Verified By ECOCERT / Cosmos Approved- 11062

Peak	RT (min)	Compound name	%
1	5,38	ACETONE	0,02
2	7,61	alpha-PINENE	0,53
3	10,49	DEHYDROXYLINALOOL OXIDE A	0,06
4	12,38	gamma-PYRONENE	0,03
5	13,00	beta-MYRCENE	0,10
6	13,09	alpha-PHELLANDRENE	0,07
7	13,86	alpha-TERPINENE	0,02
8	14,96	LIMONENE	0,18
9	15,16	1,8-CINEOLE	0,03
10	15,50	beta-PHELLANDRENE	0,07
11	15,63	cis-ARBUSCULON	0,04
12	17,19	cis-beta-OCIMENE	0,08
13	17,61	trans-ARBUSCULON	0,03
14	17,77	gamma-TERPINENE	0,04
15	18,25	trans-beta-OCIMENE	0,11
16	19,27	p-CYMENE	0,09
17	20,15	TERPINOLENE	0,04
18	23,10	1-PENTANOL, 3-METHYL-	0,07
19	23,87	5-HEPTEN-2-ONE, 6-METHYL-	0,05
20	25,09	<b>ROSE cis-OXIDE</b>	<b>1,64</b>
21	26,01	<b>ROSE trans-OXIDE</b>	<b>0,66</b>
22	26,92	3-HEXEN-1-OL	0,05
23	29,76	cis-p-MENTHANE-8-OL	0,04
24	30,12	trans-p-MENTHANE-8-OL	0,04
25	31,10	LINALOOL cis-OXIDE	0,22
26	32,50	alpha-CUBEBENE	0,20
27	32,59	<b>MENTHONE</b>	<b>0,90</b>
28	33,04	LINALOOL trans-OXIDE	0,12
29	33,25	NERYL OXIDE	0,06
30	33,79	CITRONELLAL	0,12

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: GERANIUM ESSENTIAL OIL (EGYPT) Verified By ECOCERT / Cosmos Approved- 11062

Peak	RT (min)	Compound name	%
31	34,04	YLANGENE	0,05
<b>32</b>	<b>34,46</b>	<b>ISOMENTHONE</b>	<b>6,74</b>
33	34,83	alpha-COPAENE	0,52
34	35,42	EXO-ISOCITRAL	0,04
35	35,94	alpha-BOURBONENE	0,09
36	36,50	beta-BOURBONENE	1,13
37	37,12	alpha-GURJUNENE	0,07
38	37,86	beta1-CUBEBENE	0,03
<b>39</b>	<b>38,41</b>	<b>LINALOOL</b>	<b>4,18</b>
40	39,04	NEOISOPULEGOL	0,08
41	39,68	ISOPULEGOL	0,11
42	40,04	epsilon-CADINENE	0,14
43	41,13	beta-CUBEBENE	0,16
44	41,21	3,5-HEPTADIENE-2-ONE, 6-METHYL-	0,14
45	41,42	beta-CARYOPHYLLENE	1,33
46	41,54	ALIPHATIC ESTER	0,04
47	41,69	TERPINENE-4-OL	0,07
<b>48</b>	<b>42,15</b>	<b>6,9-GUAIADIENE</b>	<b>0,49</b>
49	42,61	KETONIC COMPOUND Mw=152	0,10
<b>50</b>	<b>43,11</b>	<b>CITRONELLYL FORMATE</b>	<b>7,64</b>
51	43,37	NEOISOMENTHOL	0,22
52	43,74	CADINA-3,5-DIENE	0,20
53	44,17	SESQUITERPENE	0,09
54	44,29	GERMACRENE A	0,13
55	44,53	ALLO-AROMADENDRENE	0,20
56	44,98	SESQUITERPENE Mw=202	0,05
57	45,13	ALIPHATIC ALCOHOL	0,03
58	45,43	ZONARENE	0,28
59	45,69	alpha-HUMULENE	0,33
60	45,89	CITRONELLYL ACETATE	0,41

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: GERANIUM ESSENTIAL OIL (EGYPT) Verified By ECOCERT / Cosmos Approved- 11062

Peak	RT (min)	Compound name	%
61	46,11	SELINENE ISOMER	0,04
62	46,28	NERYL FORMATE	0,08
63	46,32	cis-4,5-MUUROLADIENE	0,05
64	46,58	SESQUITERPENE	0,05
65	46,68	NERAL	0,37
66	47,16	gamma-SELINENE	0,27
67	47,38	gamma-MUUROLENE	0,08
<b>68</b>	<b>47,60</b>	<b>alpha-TERPINEOL</b>	<b>0,33</b>
69	47,63	LEDENE	0,20
70	48,11	GERANYL FORMATE	2,14
71	48,44	GERMACRENE D	1,43
72	48,58	EREMOPHILENE	0,04
73	48,74	MUUROLADIENE ISOMER	0,15
74	48,92	beta-SELINENE	0,25
75	49,03	PIPERITONE	0,12
76	49,27	alpha-SELINENE	0,19
77	49,42	alpha-MUUROLENE	0,21
78	49,68	CITRONELLYL PROPIONATE	0,42
79	49,75	BICYCLOGERMACRENE	0,73
80	49,80	GERANIAL	0,46
81	50,47	E,E-alpha-FARNESENE	0,06
82	51,12	gamma-CADINENE	0,14
83	51,26	delta-CADINENE	1,66
84	51,32	GERANYL ACETATE	0,26
85	52,05	CITRONELLOL	34,56
86	52,44	beta-SESQUIPELLANDRENE	0,15
87	52,82	CADINA-1,4-DIENE	0,14
88	53,60	NEROL	0,27
89	54,12	CITRONELLYL BUTYRATE	0,51
90	54,69	NERYL ISOBUTYRATE	0,09

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GCMS ANALYSIS (cont'd.)

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Peak	RT (min)	Compound name	%
91	55,02	GERANYL PROPIONATE	0,70
92	55,36	GERMACRENE B	0,04
93	55,56	trans-CALAMENENE	0,27
94	56,40	GERANIOL	10,98
95	56,72	GERANYL ISOBUTYRATE	0,05
96	57,93	2-PHENYLETHYL ISOBUTYRATE	0,13
97	58,02	2-PHENYLETHYL BUTYRATE	0,07
98	58,41	ISOGERANIOL ISOMER	0,11
99	58,67	alpha-AGAROFURAN	0,28
<b>100</b>	<b>59,27</b>	<b>GERANYL BUTYRATE</b>	<b>0,92</b>
101	59,53	NERYL 2-METHYLBUTYRATE	0,18
102	60,03	alpha-CALACORENE	0,06
103	61,73	CUBEBOL	0,03
104	62,27	CITRONELLYL METHYLVALERATE	0,11
105	63,74	CARYOPHYLLENE OXIDE	0,15
106	64,52	NERYL METHYLVALERATE	0,18
107	64,78	CITRONELLYL CAPROATE	0,06
108	65,49	CITRONELLYL TIGLATE	0,35
109	66,32	LEDOL	0,04
110	67,23	NERYL CAPROATE	0,15
111	67,68	Epi-CUBENOL	0,36
112	68,09	CUBENOL	0,14
113	68,66	GLOBULOL	0,10
114	69,06	VIRIDIFLOROL	0,07
115	69,33	FUOPELARGON	0,05
116	69,63	GERANYL CAPROATE	0,12
<b>117</b>	<b>70,02</b>	<b>10-epi-gamma-EUDESOL</b>	<b>4,23</b>
<b>118</b>	<b>70,63</b>	<b>GERANYL TIGLATE</b>	<b>0,99</b>
119	71,03	SPATHULENOL	0,22
120	71,89	PENTADECANONE, TRIMETHYL-	0,06

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GCMS ANALYSIS (cont'd.)

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Peak	RT (min)	Compound name	%
121	72,22	AROMATIC COMPOUND	0,04
122	72,98	T-CADINOL	0,04
123	73,20	gamma-EUDESOL	0,10
124	73,55	AGAROSPIROL	0,16
<b>125</b>	<b>74,12</b>	<b>2-PHENYLETHYL TIGLATE</b>	<b>0,83</b>
126	74,59	SESQUITERPENOL	0,12
127	74,77	NERYL CAPRYLATE	0,14
128	74,87	CITRONELLIC ESTER	0,04
129	75,34	VALERIANOL	0,19
130	75,78	CITRONELLIC ESTER	0,03
131	75,90	alpha-EUDESOL	0,04
132	76,04	4-HYDROXY-DIHYDRO-alpha-AGAROFURAN	0,23
133	76,12	beta-EUDESOL	0,40
134	76,90	CITRONELLIC ACID	0,08
135	77,87	ALIPHATIC ESTER	0,04
136	79,40	CITRONELLIC ESTER	0,04
137	80,96	GERANIC ACID	0,11
		<b>TOTAL</b>	<b>100,00</b>

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