NEW DIRECTIONS AROMATICS

NATURAL INGREDIENTS ETHICALLY SOURCED

GCMS ANALYSIS

PRODUCT NAME: LEMONGRASS ESSENTIAL OIL - VERIFIED BY ECOCERT/COSMOS APPROVED – 11080
DATE: April 20, 2021

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,

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GCMS ANALYSIS *(cont'd,)*

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Peak	RT (min)	Compound name	%
1	6,25	TRICYCLENE	0,12
2	6,50	alpha-PINENE	0,20
3	7,43	CAMPHENE	0,98
4	8,81	SABINENE	0,01
5	8,87	4-HEPTANONE	0,02
6	10,04	beta-MYRCENE	0,08
7	11,11	1,8-CINEOLE, 2,3-DEHYDRO-	0,03
8	11,45	**LIMONENE**	**0,28**
9	11,85	beta-PHELLANDRENE	0,04
10	12,81	cis-beta-OCIMENE	0,34
11	13,36	gamma-TERPINENE	0,01
12	13,56	trans-beta-OCIMENE	0,20
13	15,06	TERPINOLENE	0,05
14	15,34	OCTANAL	0,05
15	17,27	4-NONANONE	1,08
16	17,72	**5-HEPTEN-2-ONE, 6-METHYL-**	**1,04**
17	18,61	HEXENYLIC ESTER	0,02
18	20,01	ALLO-OCIMENE	0,01
19	20,85	3-HEXEN-1-OL	0,01
20	21,18	ROSEFURAN	0,13
21	22,16	PERILLENE	0,08
22	22,26	PHOTOCITRAL ISOMER	0,08
23	22,93	COMPOUND Mw=152	0,01
24	23,48	LINALOOL cis-OXIDE	0,01
25	24,63	SESQUITERPENE	0,02
26	25,14	LINALOOL trans-OXIDE	0,01
27	25,74	ISOGERANIAL	0,18
28	25,90	CITRONELLAL	0,13
29	26,05	ISOLEDENE	0,15
30	26,11	YLANGENE	0,06

Disclaimer & Caution
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GCMS ANALYSIS *(cont'd,)*

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Peak	RT (min)	Compound name	%
31	26,68	alpha-COPAENE	0,02
32	26,97	DECANAL	0,12
33	27,36	ISONERAL	0,26
34	27,71	CAMPHOR	0,01
35	28,01	COMPOUND Mw=138	0,03
36	28,19	beta-BOURBONENE	0,03
37	28,66	SATIVENE	0,03
38	29,02	4-UNDECANONE	0,04
39	29,38	COMPOUND Mw=154	0,03
40	29,46	PHOTOCITRAL A	0,87
41	29,72	LINALOOL	1,09
42	31,18	PHOTOCITRAL B	1,09
43	31,20	epsilon-CADINENE	0,10
44	32,40	beta-ELEMENE	0,11
45	32,79	**beta-CARYOPHYLLENE**	**1,29**
46	32,99	COMPOUND Mw=166	0,26
47	33,37	TERPINENE-4-OL	0,02
48	34,40	6,9-GUAIADIENE	0,01
49	34,86	CADINA-3,5-DIENE	0,01
50	35,29	GERMACRENE A	0,01
51	36,34	ISOBORNEOL	0,01
52	36,52	SESQUITERPENE	0,02
53	37,04	alpha-HUMULENE	0,14
54	37,22	cis-4,5-MUUROLADIENE	0,02
55	37,93	**NERAL**	**32,99**
56	38,00	gamma-MUUROLENE	0,04
57	38,49	alpha-TERPINEOL	0,18
58	38,62	BORNEOL	0,15
59	39,06	GERANYL FORMIATE	0,03
60	39,35	GERMACRENE D	0,18

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Peak	RT (min)	Compound name	%
61	39,64	CADINENE ISOMER	0,01
62	39,84	PIPERITONE	0,02
63	40,14	alpha-MUUROLENE	0,04
64	40,93	**GERANIAL**	**41,76**
65	41,39	trans-PIPERITOL	0,03
66	41,66	trans-ISOPIPERITENOL	0,03
67	42,12	**GERANYL ACETATE**	**3,28**
68	42,24	gamma-CADINENE	0,94
69	42,50	delta-CADINENE	0,17
70	43,38	SESQUITERPENE	0,01
71	43,57	SESQUITERPENE	0,02
72	44,05	CITRONELLOL	0,04
73	44,35	NEROL	0,24
74	44,82	SESQUITERPENE	0,01
75	45,01	trans-ISOGERANIOL	0,01
76	45,61	GERMACRENE B	0,02
77	45,99	CALAMENENE	0,02
78	47,06	**GERANIOL**	**6,57**
79	49,40	epi-CUBEBOL	0,09
80	49,81	GERANYL BUTYRATE	0,08
81	51,82	PHYTYL COMPOUND	0,03
82	52,19	CUBEBOL	0,26
83	52,65	KETONIC COMPOUND	0,01
84	53,82	ISOCARYOPHYLLENE EPOXIDE	0,10
85	54,31	CARYOPHYLLENE EPOXIDE	0,49
86	56,79	ALIPHATIC ALCOHOL	0,03
87	57,23	epoxy-6,7-HUMULENE	0,05
88	57,36	SESQUITERPENIC EPOXIDE	0,01
89	58,22	KETONIC COMPOUND + epi-CUBENOL	0,08
90	58,59	CUBENOL	0,04

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Peak	RT (min)	Compound name	%
91	59,10	SESQUITERPENOL	0,01
92	59,37	ELEMOL	0,04
93	62,09	PENTADECANONE, TRIMETHYL-	0,01
94	62,56	SESQUITERPENIC EPOXIDE	0,02
95	63,28	EUGENOL	0,01
96	64,25	AGAROSPIROL + 4-VINYL GUAIACOL	0,01
97	64,64	alpha-MUUROLOL	0,02
98	66,28	SESQUITERPENOL	0,02
99	68,65	SESQUITERPENIC EPOXIDE	0,01
100	69,48	NERIC ACID	0,06
101	69,74	ALIPHATIC ESTER	0,01
102	71,56	GERANIC ACID	0,20
103	71,79	ISOEUGENOL	0,41
104	73,32	SESQUITERPENIC EPOXIDE	0,01
105	85,74	AROMATIC COMPOUND	0,02
		TOTAL	**100,00**

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