

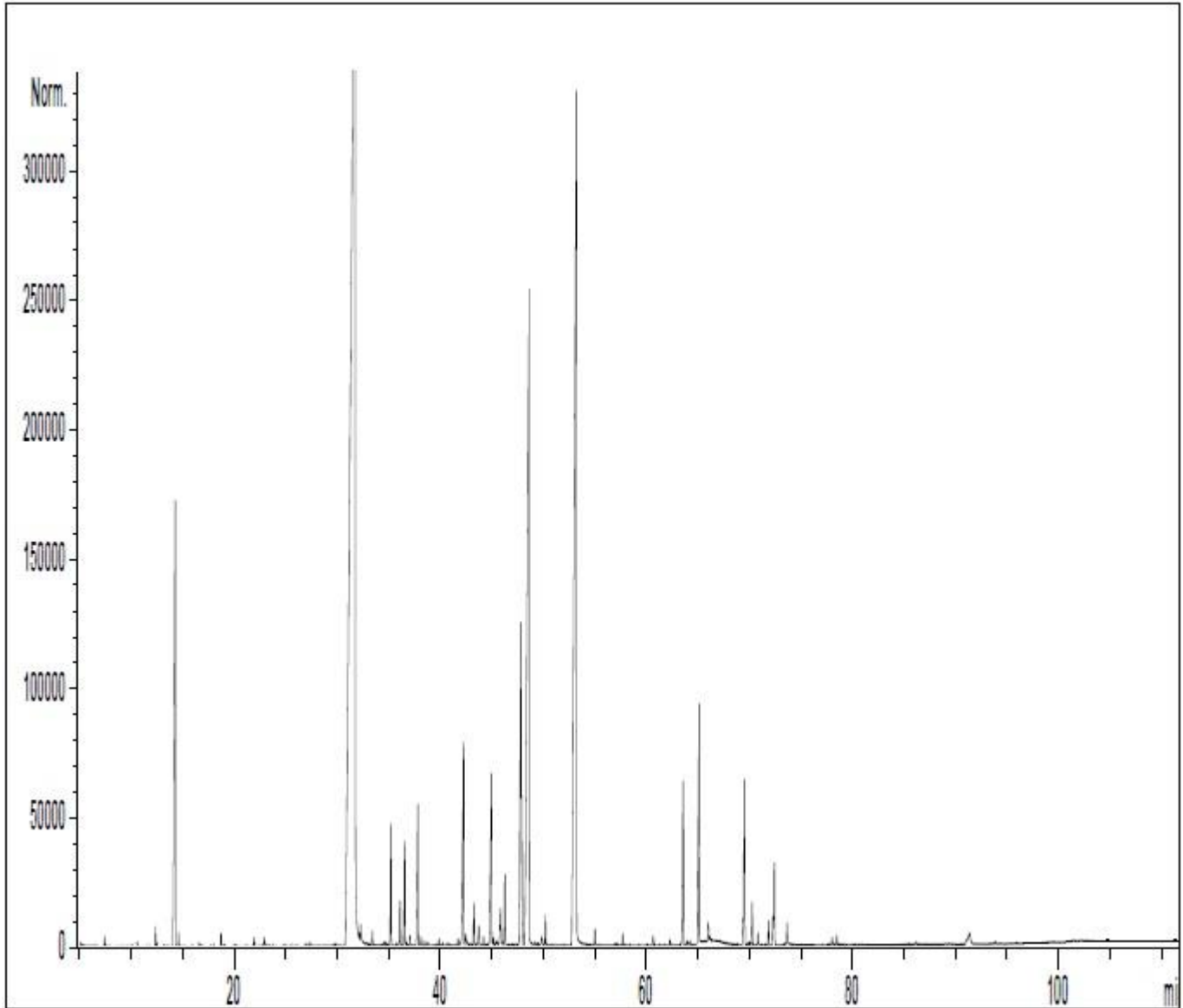


NEW DIRECTIONS
A R O M A T I C S

GCMS ANALYSIS

PRODUCT NAME: CITRONELLA JAVA ESSENTIAL OIL - 11229

DATE: May 2, 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.



PRODUCT NAME: CITRONELLA JAVA ESSENTIAL OIL - 11229

Peak	RT (min)	COMPONENT name	%	Norm (%)	Allergens (%)
1	5,1	CYCLOPENTANE, 1-METHYL-1-METHYLETHYL	0,01		
2	7,4	α -PINENE	0,03		
3	7,5	α -THUYENE	0,01		
4	10,1	β -PINENE	0,01		
5	10,5	SABINENE	0,02		
6	12,3	β -MYRCENE	0,08		
7	12,5	α -PHELLANDRENE	0,02		
8	13,2	α -TERPINENE	0,01		
9	14,3	LIMONENE	4,12		4,12
10	14,6	β -PHELLANDRENE	0,05		
11	16,6	γ -TERPINENE	0,02		
12	16,9	Trans- β -OCIMENE	0,01		
13	18,0	p-CYMENE	0,01		
14	18,7	TERPINOLENE	0,07		
15	19,0	OCTANAL	0,01		
16	20,1	2-BUTEN-1-OL, 3-METHYL	0,01		
17	21,9	6-METHYL-5-HEPTEN-2-ONE	0,05		
18	22,9	5-HEPTANAL, 2,6-DIMETHYL-	0,06		
19	23,0	ROSE, cis-OXIDE	0,01		
20	23,7	ROSE, trans-OXIDE	0,01		
21	24,9	ANISALDEHYDE TRIMETHYL	0,01		
22	27,0	Cis-p-MENTHANE-3,8-DIOL	0,02		
23	27,3	Trans-p-MENTHANE-3,8-DIOL	0,03		
24	29,6	α -CUBEBENE	0,01		
25	29,8	MENTHONE	0,03		
26	31,7	CITRONELLAL	44,48		
27	32,1	DECANAL	0,02		
28	32,3	ISOMENTHONE	0,10		
29	33,4	β -BOURBONENE	0,07		
30	34,5	MENTHENIC COMPONENT	0,03		
31	34,7	β 1-CUBEBENE	0,05		
32	35,2	LINALOOL	0,73		0,73
33	35,8	1-OCTANOL	0,03		
34	36,1	NEOISOPULEGOL	0,28		
35	36,5	ISOPULEGOL	0,70		
36	36,7	ϵ -CADINENE	0,04		
37	37,1	SESQUITERPENE	0,07		
38	37,3	α -trans-BERGAMOTENE	0,01		
39	37,8	β -ELEMENE	1,22		
40	38,1	β -CUBEBENE	0,07		
41	38,5	TERPINENE-4-OL	0,03		
42	38,8	β -CARYOPHYLLENE	0,04		
43	39,3	CITRONELLYL FORMIATE	0,01		
44	39,6	TERPENIC ALCOHOL	0,01		
45	39,8	ISOPULEGOL ISOMER	0,05		

Disclaimer & Caution

Please refer to the Material Safety Data Sheet (MSDS) and all other relevant technical information specific to the product, prior to use. The user of this product is solely responsible for determining the suitability of the product for their particular use and to be in compliance with all laws and regulations applying to the use of this product. New Directions Aromatics Inc. shall not be held responsible for any damages or for any adverse physical effects (including injury or bodily harm) caused by insufficient knowledge, wrongful application or the improper handling or use of this product. 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 information on the New Directions Aromatics Inc. website is obtained from current and reliable sources but makes no representation as to its comprehensiveness or accuracy. 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.

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46	40,2	CADINA-3,5-DIENE	0,03		
47	40,6	GERMACRENE A	0,04		
48	41,7	ZONARENE	0,06		
49	42,2	CITRONELLYL ACETATE	2,06		
50	42,5	α -HUMULENE	0,11		
51	41,6	Cis-4,5-MUUROLADIENE	0,04		
52	42,8	γ -SELINENE	0,04		
53	43,3	NERAL	0,30		0,30
54	43,7	γ -MUUROLENE	0,17		
55	44,2	α -TERPINEOL	0,06		
56	44,4	GERANYL FORMIATE	0,02		
57	45,0	GERMACRENE D	1,79		
58	45,2	CUBEBENE ISOMER	0,07		
59	45,4	MUUROLENE ISOMERE	0,02		
60	45,5	β -SELINENE	0,04		
61	45,8	α -MUUROLENE	0,40		
62	46,3	GERANIAL	0,51		0,51
63	47,8	GERANYL ACETATE	3,78		
64	48,6	CITRONELLOL	11,13		11,13
65	48,7	δ -CADINENE	0,05		
66	48,8	γ -CADINENE	0,20		
67	49,2	γ -GERANIOL	0,04		
68	49,5	CADINA-1,4-DIENE	0,02		
69	49,8	NEROL	0,18		
70	50,2	α -AMORPHENE	0,10		
71	50,6	Cis-ISOGERANIOL	0,01		
72	50,9	ISOGERANIOL	0,01		
73	53,2	GERANIOL	16,94		16,94
74	55,0	Epi-CUBEBOL	0,11		
75	55,3	OXO HYDROXY KETONIC COMPONENT	0,01		
76	56,9	α -CALACORENE	0,01		
77	57,2	CYCLOCARBOXYLATE ESTER	0,02		
78	57,7	CUBEBOL	0,07		
79	59,3	CUBENBOL ISOMER	0,01		
80	60,1	CUBEBOL ISOMER	0,01		
81	60,6	CARYOPHYLLENE EPOXIDE	0,08		
82	61,3	METHYLEUGENOL	0,01		
83	62,3	SESQUITERPENOL	0,04		
84	63,5	GERMACRA-1,5-DIEN-4-OL	1,40		
85	63,9	Epi-CUBENOL	0,04		
86	64,2	CUBENOL	0,05		
87	65,1	ELEMOL	3,35		
88	66,0	8-epi- γ -EUDESMOL	0,13		
89	66,2	SESQUITERPENOL	0,02		
90	69,4	EUGENOL	1,12		1,12

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Peak	RT (min)	COMPONENT name	%	Norm (%)	Allergens (%)
91	69,5	T-CADINOL	0,30		
92	69,8	γ -EUDESMOL	0,03		
93	70,0	α -MUUROLOL	0,03		
94	70,3	CADINOL ISOMER	0,29		
95	70,8	δ -CADINOL	0,08		
96	71,9	α -EUDESMOL	0,16		
97	72,3	β -EUDESMOL	0,20		
98	72,4	α -CADINOL	0,57		
99	73,6	CITRONELIC ACID	0,22		
100	78,0	FARNESOL	0,07		0,07
101	78,5	GERANYLGERANIOL	0,07		
102	86,2	EUGENOL METHOXY	0,02		
103	91,4	AROMATIC COMPONENT	0,30		
104	93,9	PHENOL ETHER COMPONENT	0,02		
105	99,5	ALIPHATIC ALCOHOL	0,01		
106	101,4	AROMATIC COMPONENT	0,03		
107	102,2	AROMATIC COMPONENT	0,02		
108	104,7	AROMATIC COMPONENT	0,02		
109	106,0	ALIPHATIC ALCOHOL	0,02		
110	111,3	BENZYL COMPONENT	0,02		
		TOTAL	99,94		34,92

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