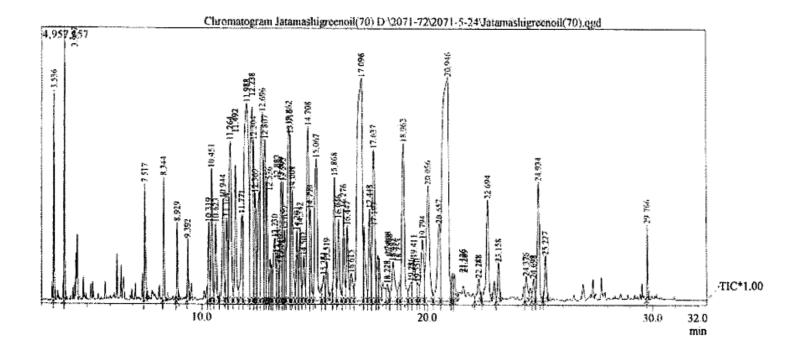


## **GCMS ANALYSIS**

PRODUCT NAME: SPIKENARD ESSENTIAL OIL - 11134

DATE: August 4, 2015



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**

Peak Report TIC						
Peak#	R.Time	Area	Area%	-		
1	3.536	6932451	0.86	Pinene <alpha-></alpha->		
2	3.997	9731920	1.21	Pinene <beta-></beta->		
3	7.517	6144688	0.76	Isovalerate <isobutyl-></isobutyl->		
4	8.344	5949907	0.74	Myrtenate <methyl-></methyl->		
5	8.929	3815082	0.47	Myrtenyl acetate		
6	9.392	3180824	0.39	1,3-Cyclopentanedimethanol		
7	10.319	5784414	0.72	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-methylene-1-(1-methylene-1)		
8	10.451	10027571	1.24	4,7-Methanoazulene, 1,2,3,4,5,6,7,8-octahydro-1,4,9,9-tetramethyl-, [1S-(		
9	10.623	6165550	0.76	Cyclohexane, 1-ethenyl-1-methyl-2,4-bis(1-methylethenyl)-, [1S-(1 alpha.,		
10	10.944	10377152		Sesquithujene <7-epi->		
11	11.104	6777820	0.84	1,5,9,13-Tetradecatetraene		
12	11.264	19877126	2.46			
13	11,492	12854471	1.59	Arístolene		
14	11.771	10993134	1.36	Aristola-1(10),8-diene		
15	11.988	48221673	5.98	IH-Cyclopropa[a]naphthalene, 1a,2,3,5,6,7,7a,7b-octahydro-1,1,7,7a-tetra		
16	12.238	28983895	3.59	(-)-Aristolene		
17	12.304	8504192	1.05	Seychellene		
18	12,369	7492766	0.93	Isolongifolene, 4,5-dehydro-		
19	12.536	12751991	1.58	Linalyl formate		
20	12.696	27146660	3.37	Valerena-4,7(11)-diene		
21	12.807	14245794	1,77	1H-Cycloprop[e]azulene, decahydro-1,1,7-trimethyl-4-methylene-, [1aR-(		
22	12.883	8123869	1.01	5-Hydroxymethyl-1,3,3-trimethyl-2-(3-methyl-buta-1,3-dienyl)-cyclopenta		
23	13.016	3183705	0.39	Calamenene <trans-></trans->		
24	13.078	2668683	0.33	Cedrene -beta->		
25	13.230	8521867	1.06	Curcumene <gamma-></gamma->		
26	13,344	4697953	0.58	Curcumene <alpha-></alpha->		
27	13.509	12446403		Muurola-4(14),5-diene <cis-></cis->		
28	13.595	9335305		Eudesma-4(14),11-diene		



## **GCMS ANALYSIS**

Peak#	R Time	Area	Area%	Nama
29	13.659	5399012		1,4-Methano-1H-cyclohepta[d]pyridazine, 4,4a,5,6,7,8,9,9a-octahydro-10
30	13.862	24393848		Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-methylene-1-(1-meth
31	13.916	9175779		Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(1-methylethen)
32	14 008	8582869		Bicyclo[5.2 0]nonane, 4-methylene-2,8,8-trimethyl-2-vinyl-
33	14 203	6346621		Azulene, 1,2,3,5,6,7,8,8a-octalnydro-1,4-dimethyl-7-(1-methylethenyl)-, [1
34	14.342	6420078		Curcumene Seta->
35	14.502	4959682		Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-methylene-1-(1-metl
36	14 708	20441684		(-)-alpha -Panasinsen
37	14 790	7510114		Cadinene <delta-></delta->
38	15.067	20739408		Neoisolongifolene, 8,9-dehydro-
39	15.381	3080738		2,11-Dioxatetracyclo[4.3.1 1(3,10).0(6,9)]undec-4-ene, 3,7,7,10-tetrameti
40	15 519	4161844		2,4,6-Tris(cyclohexyl)hept-1-ene
41	15.868	11906111		1-Ethyl-4,4-dimethyl-cyclohex-2-en-1-ol
42	16.046	8484132		Myrtenyl isobutyrate
43	16.276	8639716		Cyclohex-3-ene-1-carboxaldehyde <1-methyl-, 4-(4-methylpentyl)->
44	16 447	7639286		Viridiflorol
45	16.615	3758645		
46	17.096	63643812		Isolongifolene, 4,5,9,10-dehydro- Cadin-4-en-10-ol
47	17.193	7861962		Globulol
48	17.448	9098391		
49	17.637	19760658		Epiglobulol
50	17.808	4587171		Carotol
51				2-Naphthalenemethanol, 2,3,4,4a,5,6,7,8-octahydro- alpha, alpha,4a,8-tet
52	17.868	3694485		1H-Cycloprop[e]azulen-4-ol, decahydro-1,1,4,7-tetramethyl-, [1ar-(1a alpl
	18.228	2056972		1-Naphthalenol, decahydro-1,4a-dimethyl-7-(1-methylethylidene)-, [1R-(1
53	18.482	7434612	0.92	Chabridad
54	18.753	2106894		Globulol
55	18.963	23199178		Cadin-4-en-10-ol
56	19.286	2799233	0.35	This state of the
57	19,411	6516381		Bicyclo[3.3.1]nonan-9-one, 1,2,4-trimethyl-3-nitro-, (2-endo,3-exo,4-exo)
58	19.550	2081579		Bisabolol <alpha-></alpha->
59	19.794	9794258		Cadin-4-en-10-ol
60	20.056	23057716		Patchouli alcohol
61	20,557	12994334		6-Isopropenyl-4,8a-dimethyl-1,2,3,5,6,7,8,8a-octahydro-naphthalen-2-ol
62	20.946	75740212		1(2H)-Naphthalenone, octahydro-4a,8a-dimethyl-7-(1-methylethyl)-, [4aR
63	21.126	2526364		Bisabolol <alpha-></alpha->
64	21 209	2782171		2,10-Dodecadien-1-ol, 3,7,11-trimethyl-, (E)-(.+/)-
65	22.288	3278289		Alloaromadendrene oxide-(2)
66	22.694	13855852		Azulene, 1;2,3,3a,4,5,6,7-octahydro-1,4-dimethyl-7-(1-methylethenyl)-, [1
67	23 158	3797478		Naphthalene, 1,2,3,4-tetrahydro-2,5,8-trimethyl-
68	24.376	3155146		2(3H)-Naphthalenone, 4,4a,5,6,7,8-hexahydro-4,4a-dimethyl-6-(1-methyle
69	24 698	2481249		2,2,7,7-Tetramethyltricyclo[6.2.1.0(1,6)]undec-4-en-3-one
70	24.934	14512584		2s,6s-2,6,8,8-Tetramethyltricyclo[5 2 2.0(1,6)]undecan-2-ol
71	25.227	4637260		Formic acid, 8-formyloxymethyl-2-isopropyl-5-methyl-bicyclo[3.2 1]oct-6
72	29.766	2433032		Aristola-I(10),8-diene
		806463706	100,00	

