

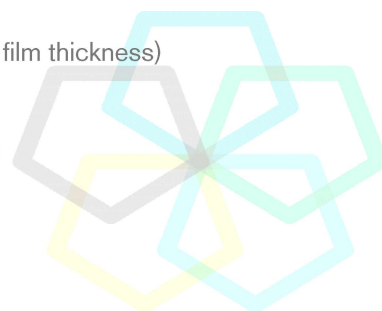


## Aromatic Plant Research Center

We provide uncompromising  
quality control for your products.

**Customer** : doTERRA International  
**Lot Number** : 2035214  
**Date Filled** : 12/17/2020

**Column** : ZB5 (60 m length × 0.25 mm inner diameter × 0.25 µm film thickness)  
**Instrument** : Shimadzu GCMS-QP2010 Ultra  
**Carrier gas** : Helium 80 psi  
**Temperature ramp** : 2 degrees celsius per minute up to 260-degrees celsius  
**Split ratio** : 30:1  
**Sample preparation** : 5%w/v solution with Dichloromethane.



**Comments:**

The analysis of this Ylang Ylang lot revealed no contaminants or adulteration.  
The sample meets the expected chemical profile for authentic essential oils of *Cananga odorata*.

**Analysied by** : Ambika Poudel  
**Reviewed by** : Dr. Prabodh Satyal



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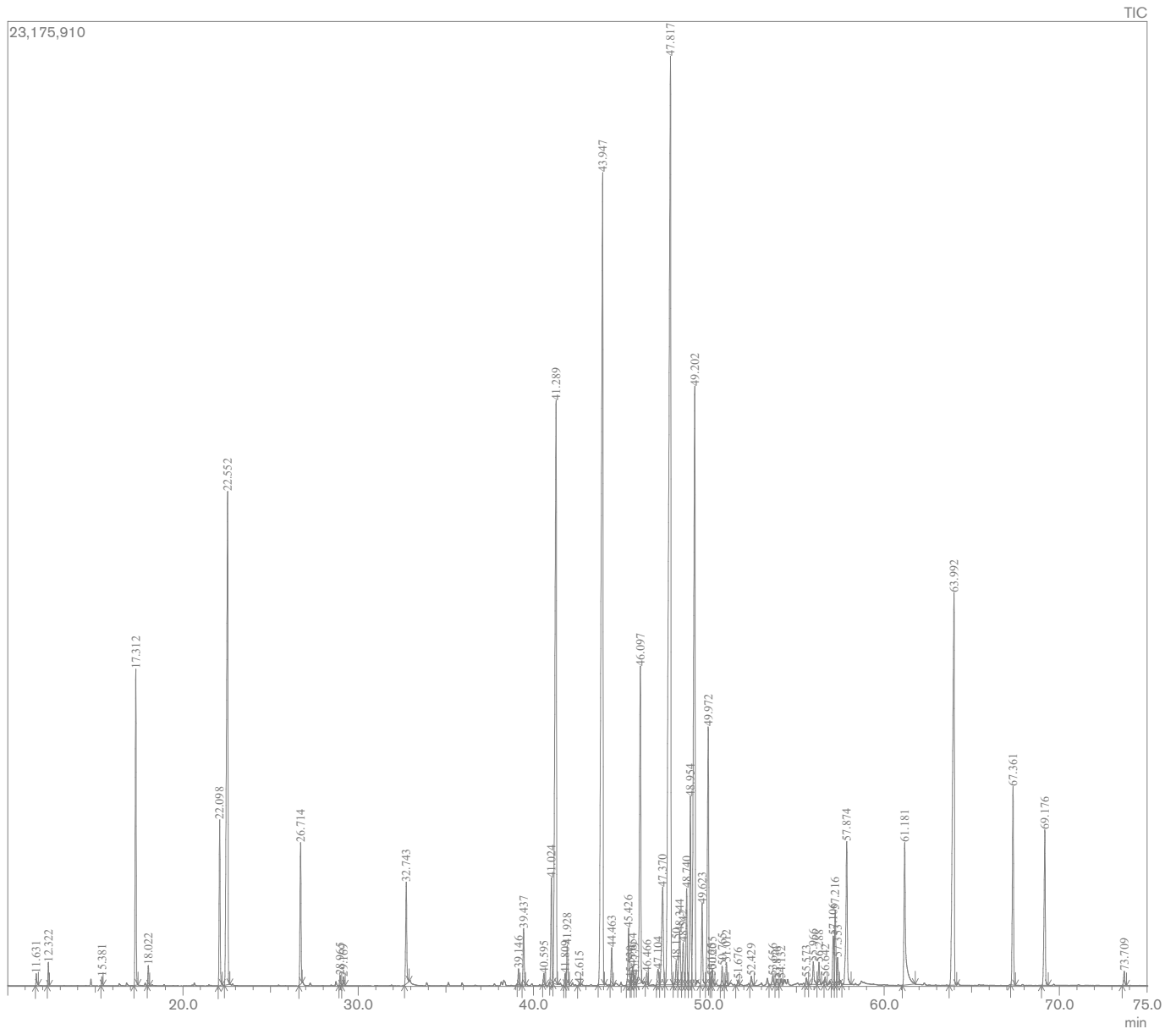
# Ylang Ylang Essential Oil

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## Chromatogram



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## Peak Report

Peak#	R.Time	Name	Area%
1	11.631	Prenyl acetate	0.09
2	12.322	alpha-Pinene	0.16
3	15.381	Myrcene	0.07
4	17.312	para-Methyl anisole	2.78
5	18.022	1,8-Cineole	0.16
6	22.098	Methyl benzoate	1.49
7	22.552	Linalool	6.89
8	26.714	Benzyl acetate	1.38
9	28.965	alpha-Terpineol	0.09
10	29.169	Methyl chavicol	0.08
11	32.743	Geraniol	1.03
12	39.146	alpha-Cubebene	0.15
13	39.437	Eugenol	0.57
14	40.595	alpha-Ylangene	0.11
15	41.024	alpha-Copaene	1.08
16	41.289	Geranyl acetate	8.44
17	41.809	beta-Cubebene	0.11
18	41.928	beta-Elemene	0.45
19	42.615	Methyl eugenol	0.02
20	43.947	beta-Caryophyllene	13.85
21	44.463	beta-Copaene	0.38
22	45.426	trans-Cinnamyl acetate	0.65
23	45.530	trans-Isoeugenol	0.04
24	45.654	cis-Muurolo-3,5-diene	0.21
25	45.779	trans-Muurolo-3,5-diene	0.10
26	46.097	alpha-Humulene	3.79
27	46.466	cis-Muurolo-4(14),5-diene	0.12
28	47.104	cis-Cadina-1(6),4-diene	0.21
29	47.370	trans-Cadina-1(6),4-diene	1.59
30	47.817	Germacrene D	18.24
31	48.150	Prenyl benzoate	0.27
32	48.344	trans-Muurolo-4(14),5-diene	0.78
33	48.542	Bicyclogermacrene	0.51
34	48.740	alpha-Muurolo	1.02
35	48.954	cis-trans-alpha-Farnesene	2.16
36	49.202	trans-trans-alpha-Farnesene	8.43
37	49.623	gamma-Cadinene	0.91
38	49.972	delta-Cadinene	3.16
39	50.165	trans-Calamenene	0.08
40	50.205	Zonarene	0.17
41	50.765	trans-Cadina-1,4-diene	0.19
42	51.012	alpha-Cadinene	0.24
43	51.676	alpha-Elemol	0.07
44	52.429	trans-Nerolidol	0.11
45	53.656	10-epi-Juneol	0.12
46	53.876	Globulol	0.08
47	54.132	Sesquiterpene alcohol	0.08
48	55.573	1,10-Di-epi-cubenol	0.06
49	55.966	Humulane-1,6-dien-3-ol	0.29
50	56.288	1-epi-Cubenol	0.25
51	56.642	cis-Cadin-4-en-7-ol	0.09
52	57.106	epi-alpha-Cadinol	0.61
53	57.216	epi-alpha-Muurolo	0.85
54	57.353	delta-Cadinol	0.33
55	57.874	alpha-Cadinol	1.97
56	61.181	2-trans-6-cis-Farnesol	2.18
57	63.992	Benzyl benzoate	6.52
58	67.361	Farnesyl acetate	2.12
59	69.176	Benzyl salicylate	1.86
60	73.709	Geranyl benzoate	0.15
			100.00

