



## Aromatic Plant Research Center

We provide uncompromising  
quality control for your products.

**Customer** : doTERRA International  
**Lot Number** : 231012  
**Date Filled** : 04/11/2023

**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 Rose lot revealed no contaminants or adulteration.  
The sample meets the expected chemical profile for authentic essential oils of *Rosa damascena*.

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



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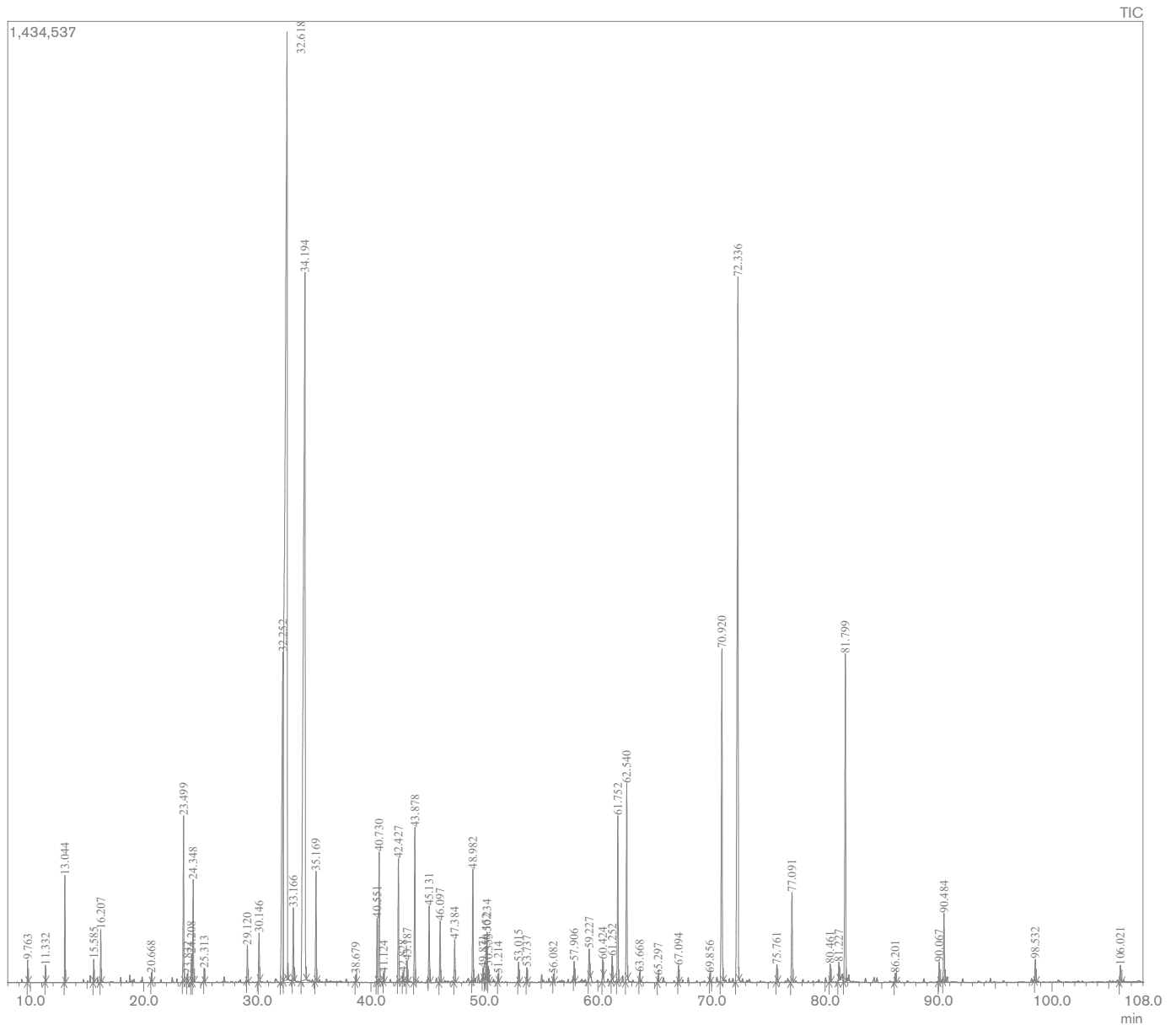
# Rose Essential Oil

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## Chromatogram



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## Peak Report

Peak#	R.Time	Name	Area%
1	9.763	n-Hexanol	0.13
2	11.332	Heptanal	0.10
3	13.044	alpha-Pinene	0.75
4	15.585	beta-Pinene	0.17
5	16.207	Myrcene	0.40
6	20.668	gamma-Terpinene	0.07
7	23.499	Linalool	1.54
8	23.832	n-Nonanal	0.07
9	24.208	cis-Rose oxide	0.29
10	24.348	Phenyl ethyl alcohol	1.00
11	25.313	trans-Rose oxide	0.11
12	29.120	Terpinen-4-ol	0.34
13	30.146	alpha-Terpineol	0.51
14	32.252	Nerol	6.72
15	32.618	Citronellol	29.92
16	33.166	Neral	0.72
17	34.194	Geraniol	17.89
18	35.169	Geranial	1.09
19	38.679	Methyl geranate	0.07
20	40.551	Citronellyl acetate	0.62
21	40.730	Eugenol	1.39
22	41.124	Neryl acetate	0.07
23	42.427	Geranyl acetate	1.22
24	42.828	beta-Bourbonene	0.09
25	43.187	beta-Elementene	0.21
26	43.878	Methyl eugenol	1.65
27	45.131	beta-Caryophyllene	0.75
28	46.097	alpha-Guaiene	0.63
29	47.384	alpha-Humulene	0.44
30	48.982	Germacrene D	1.18
31	49.871	Aciphyllene	0.10
32	50.152	n-Pentadecane	0.29
33	50.234	alpha-Bulnesene	0.50
34	50.353	trans-trans-alpha-Farnesene	0.14
35	51.214	delta-Cadinene	0.07
36	53.015	alpha-Elemol	0.20
37	53.737	trans-Nerolidol	0.14
38	56.082	Hexadecane	0.06
39	57.906	gamma-Eudesmol	0.17
40	59.227	beta-Eudesmol	0.40
41	60.424	Tetradecanol	0.18
42	61.252	2-cis-6-cis-Farnesal	0.24
43	61.752	Heptadecane	1.76
44	62.540	2-trans-6-cis-Farnesol	2.26
45	63.668	2-trans-6-trans-Farnesal	0.08
46	65.297	Benzyl benzoate	0.06
47	67.094	Octadecane	0.17
48	69.856	Phenyl ethyl octanoate	0.07
49	70.920	Nonadec-9-ene	4.30
50	72.336	Nonadecane	11.27
51	75.761	Heptadecanol	0.18
52	77.091	Eicosane	1.02
53	80.461	1-Eicosanal	0.19
54	81.227	Octadecanol	0.20
55	81.799	Heneicosane	4.19
56	86.201	Docosane	0.10
57	90.067	1-Tricosene	0.22
58	90.484	n-Tricosane	0.81
59	98.532	n-Pentacosane	0.24
60	106.021	n-Heptacosane	0.21
			100.00

