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Balancing Body, Mind Spirit with Pure Essential Oils  
Since 1995  
[www.naturesgift.com](http://www.naturesgift.com)

## Lime

*Citrus aurantifolia*

Batch No. #MX-59439

Mexico

### Monoterpenes

limonene + β phellandrene	34.56
γ terpinene	12.33
terpinolene	9.84
α terpinene	3.42
β pinene	3.04
α pinene	1.75
myrcene	1.66
para-cymene	1.6
o-cymene	1.41
camphene	0.76
α phellandrene	0.7
(E) β ocimene	0.56
para-cymenene	0.36
α fenchene	0.3
(Z) β ocimene	0.2
p-mentha-3,8-diene	0.11
alloocimene	0.06
para-menthatriene	0.06
2-carene	0.05
1,3,8-para-menthatriene	0.05
sabinene	0.04
tricyclene	0.04
α thujene	0.04
bornylene	0.03
cyclofenchene	0.01
isoterpinolene	0.01

### Ketones

Camphor	0.01
carvone	0.01

### Monoterpenols

α terpineol	9.68
γ terpineol	1.68
β terpineol	0.96
terpinen-1-ol	0.9
fenchol	0.72
terpinen-4-ol	0.67
borneol	0.43
linalol	0.23
para-cymen-8-ol	0.12
δ terpineol	0.07
myrcenol	0.06
geraniol	0.05
(E) ascaridol glycol	0.04
isoborneol	0.04
isopulegol	0.01

### Aldehydes

decanal	0.17
geranal	0.14
neral	0.12
dodecanal	0.07
nonanal	0.06
tetradecanal	0.03
undecanal	0.01
hexadecanal	0.01

### Esters

neryl acetate	0.09
geranyl acetate	0.08
citronellyl acetate	0.01
tricosane	0.01

### Sesquiterpenes

β bisabolene	1.6
(E,E) α farnesene	0.9
trans α bergamotene	0.79
β caryophyllene	0.52
β cadinene	0.27
zonarene	0.23
cis α bisabolene	0.18
γ murolene	0.13
γ selinene	0.13
α selinene	0.11
(E) β farnesene	0.09
α humulene	0.09
trans α bisabolene	0.08
γ curcumene	0.08
δ elemene	0.07
cis α bergamotene	0.06
selina-3,7(11)-diene	0.06
β elemene	0.06
δ cadinene	0.06
β santalene	0.05
γ cadinene	0.05
6,9 guaiadiene	0.03
trans γ bisabolene	0.02
α murolene	0.02
longifolene	0.02
valencene	0.02
germacrene B	0.01
α longipinene	0.01
α ylangene	0.01
cis-caryophyllene	0.01



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Ethers	Other	Sesquiterpenols
1,4 cineole	nonane	caryophyllenyl alcohol
(Z) myroxide	1-octanol	$\gamma$ eudesmol
perillene	cyclohexene 3-methylene	$\alpha$ bisabolol
cis-limonene oxide	para-menthylacetophenc	(E) bisabolol-11-ol
caryophyllene oxide	tridecane	junenol
		guaiol
		bisaboladien-4-ol
		widdrol
		himachalol
		$\tau$ muurolol
		$\beta$ bisabolol

Client



Source



Lime (Citrus aurantifolia)

MX-59439 - Mexico

Sample	Lime (Citrus aurantifolia) Identification #: MX-59439 Type: Essential Oil CAS Number: 8008-26-2 <b>Nature's Gift</b>	Properties	Country Of Origin   Mexico Specific Gravity   NT Refractive Index   NT	Conclusion	<b>Monoterpenes</b> 72.99%  Monoterpenes   Sesquiterpenes   Monoterpenols   Sesquiterpenols   Ketones   Esters   Ethers   Aldehydes   Phenols   Other																														
Primary	<u>34.56%</u>   <u>Limonene (Co-Eluting)</u> <u>12.33%</u>   <u>gamma-Terpinene</u> <u>9.84%</u>   <u>Terpinolene</u>			 <b>Percentage Identified</b> 98.42%	0																														
Result	 3/2/2025				Internal Number:   EVS-6615																														
	 <b>Essential Validation Services</b> 240 Goose Hollow Road Berthoud, CO 80513 317.361.5044   <a href="https://essentialvalidationservices.com/">https://essentialvalidationservices.com/</a> 			 <table border="1"> <tr> <td>Monoterpenes</td> <td>72.99%</td> <td>72.99</td> </tr> <tr> <td>Sesquiterpenes</td> <td>5</td> <td>5.83%</td> </tr> <tr> <td>Monoterpenols</td> <td>15.75</td> <td>15.75</td> </tr> <tr> <td>Sesquiterpenols</td> <td></td> <td>0.16%</td> </tr> <tr> <td>Ketones</td> <td></td> <td>0.02%</td> </tr> <tr> <td>Esters</td> <td></td> <td>0.18%</td> </tr> <tr> <td>Ethers</td> <td></td> <td>2.66%</td> </tr> <tr> <td>Aldehydes</td> <td></td> <td>0.61%</td> </tr> <tr> <td>Phenols</td> <td></td> <td>0.01%</td> </tr> <tr> <td>Other</td> <td></td> <td>1.65%</td> </tr> </table>	Monoterpenes	72.99%	72.99	Sesquiterpenes	5	5.83%	Monoterpenols	15.75	15.75	Sesquiterpenols		0.16%	Ketones		0.02%	Esters		0.18%	Ethers		2.66%	Aldehydes		0.61%	Phenols		0.01%	Other		1.65%	
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Lime (*Citrus aurantifolia*)

MX-59439

Total Percentage	98.42%			
Number	RT	Area %	Compound Name	Chemical Family
1	3.83	0.02%	3.03 Cyclohexene<3-methylene->	0.00
2	6.39	0.01%	Cyclofenchene	Monoterpene
3	7.01	0.04%	Nonane	Alkane
4	7.13	0.03%	Bornylene	Monoterpene
5	7.75	0.04%	Tricyclene	Monoterpene
6	7.91	0.04%	alpha-Thujene	Monoterpene
7	8.17	1.75%	alpha-Pinene	Monoterpene
8	8.72	0.30%	alpha-Fenchene	Monoterpene
9	8.77	0.76%	Camphene	Monoterpene
10	9.72	0.04%	Sabinene	Monoterpene
11	9.89	3.04%	beta-Pinene	Monoterpene
12	10.47	1.66%	Myrcene	Monoterpene
13	10.61	0.05%	2-Carene	Monoterpene
14	11.12	0.70%	alpha-Phellandrene	Monoterpene
15	11.50	2.63%	1,4-Cineole	Monoterpene Ether
16	11.61	3.42%	alpha-Terpinene	Monoterpene
17	11.96	1.41%	o-Cymene	Monoterpene
18	11.98	1.60%	para-Cymene	Monoterpene
19	12.35	34.56%	Limonene	Monoterpene
20	12.44	Co-Eluting	beta-Phellandrene	Monoterpene
21	12.52	0.20%	(Z)-beta-Ocimene	Monoterpene
22	12.97	0.56%	(E)-beta-Ocimene	Monoterpene
23	13.54	12.33%	gamma-Terpinene	Monoterpene
24	14.01	0.11%	p-Mentha-3,8-diene	Monoterpene
25	14.14	0.02%	1-Octanol	Aliphatic Alcohol
26	14.49	0.01%	Isoterpinolene	Monoterpene
27	14.74	9.84%	Terpinolene	Monoterpene
28	14.89	0.36%	para-Cymenene	Monoterpene
29	15.40	0.23%	Linalool	Monoterpenol
30	15.59	0.06%	Nonanal	Aliphatic Aldehyde
31	15.89	0.05%	1,3,8-para-Menthatriene	Monoterpene
32	15.99	0.01%	Perillene	Monoterpene Ether
33	16.18	0.72%	Fenchol	Monoterpenol
34	16.36	0.06%	Myrcenol	Monoterpenol
35	16.67	0.06%	Alloocimene	Monoterpene

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Number	RT	Area %	Compound Name	Chemical Family
36	16.779	0.01%	cis-Limonene oxide	Monoterpene
37	16.97	0.90%	Terpinen-1-ol	Monoterpenol
38	17.17	0.06%	para-Menthatriene	Monoterpene
39	17.27	0.08%	12.82 Myroxide<Z->	0.00
40	17.36	0.01%	Camphor	Monoterpene Ketone
41	17.50	0.01%	Isopulegol	Monoterpenol
42	17.61	0.96%	beta-Terpineol	Monoterpenol
43	17.89	0.07%	delta-Terpineol	Monoterpenol
44	18.17	0.04%	Isoborneol	Monoterpenol
45	18.59	0.43%	Borneol	Monoterpenol
46	18.99	0.67%	Terpinen-4-ol	Monoterpenol
47	19.19	0.01%	para-Methylacetophenone	Simple Phenolic
48	19.42	0.12%	para-Cymen-8-ol	Monoterpenol
49	19.82	9.68%	alpha-Terpineol	Monoterpenol
50	19.97	1.68%	gamma-Terpineol	Monoterpenol
51	20.26	0.17%	Decanal	Aliphatic Aldehyde
52	21.65	0.12%	Neral	Monoterpene Aldehyde
53	21.84	0.01%	Carvone	Monoterpene Ketone
54	22.27	0.05%	Geraniol	Monoterpenol
55	22.99	0.14%	Geranial	Monoterpene Aldehyde
56	23.27	0.04%	trans-Ascaridol glycol	Monoterpenol
57	24.51	0.01%	Tridecane	Alkane
58	24.79	0.01%	Undecanal	Sesquiterpene Aldehyde
59	25.87	0.07%	delta-Elemene	Sesquiterpene
60	26.61	0.01%	Citronellyl acetate	Monoterpene Ester
61	26.98	0.09%	Neryl acetate	Monoterpene Ester
62	27.25	0.01%	alpha-Longipinene	Sesquiterpene
63	27.59	0.01%	alpha-Ylangene	Sesquiterpene
64	27.83	0.08%	Geranyl acetate	Monoterpene Ester
65	28.20	0.06%	beta-Elemene	Sesquiterpene
66	28.76	0.01%	cis-Caryophyllene	Sesquiterpene
67	28.89	0.02%	Longifolene	Sesquiterpene
68	29.16	0.07%	Dodecanal	Aliphatic Aldehyde
69	29.19	0.06%	cis-alpha-Bergamotene	Sesquiterpene
70	29.37	0.52%	beta-Caryophyllene	Sesquiterpene

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72	30.03	0.79%	trans-alpha-Bergamotene	Sesquiterpene
73	30.58	0.03%	6,9-Guaiadiene	Sesquiterpene
74	30.83	0.09%	alpha-Humulene	Sesquiterpene
75	30.91	0.09%	(E)-beta-Farnesene	Sesquiterpene
76	31.06	0.05%	beta-Santalene	Sesquiterpene
77	31.61	0.13%	gamma-Selinene	Sesquiterpene
78	31.86	0.08%	gamma-Curcumene	Sesquiterpene
79	32.08	0.13%	gamma-Muurolene	Sesquiterpene
80	32.18	0.27%	beta-Cadinene	Sesquiterpene
81	32.38	0.02%	Valencene	Sesquiterpene
82	32.50	0.11%	alpha-Selinene	Sesquiterpene
83	32.66	0.02%	alpha-Muurolene	Sesquiterpene
84	32.82	0.18%	cis-alpha-Bisabolene	Sesquiterpene
85	33.02	0.90%	(E,E)-alpha-Farnesene	Sesquiterpene
86	33.10	1.60%	beta-Bisabolene	Sesquiterpene
87	33.46	0.06%	delta-Cadinene	Sesquiterpene
88	33.81	0.02%	trans-gamma-Bisabolene	Sesquiterpene
89	33.98	0.23%	Zonarene	Sesquiterpene
90	34.10	0.05%	gamma-Cadinene	Sesquiterpene
91	34.30	0.06%	Selina-3,7(11)-diene	Sesquiterpene
92	34.37	0.08%	trans-alpha-Bisabolene	Sesquiterpene
93	34.92	0.01%	Germacrene B	Sesquiterpene
94	35.57	0.09%	Caryophyllenyl alcohol	Monoterpenol
95	35.80	0.01%	Caryophyllene oxide	Sesquiterpene Ether
96	36.84	0.01%	Guaiol	Sesquiterpenol
97	37.22	0.03%	Tetradecanal	Sesquiterpene Aldehyde
98	37.33	0.02%	Junenol	Sesquiterpenol
99	37.41	0.01%	33.60 Bisaboladien-4-ol<2,7Z->	0.00
100	37.55	0.01%	Widdrol	Sesquiterpenol
101	37.77	0.05%	gamma-Eudesmol	Sesquiterpenol
102	38.40	0.01%	Himachalol	Sesquiterpenol
103	38.64	0.01%	T-Muurolol	Sesquiterpenol
104	39.12	0.03%	35.47 Bisabol-11-ol<E->	0.00
105	39.23	0.01%	beta-Bisabolol	Sesquiterpenol
106	39.89	0.04%	alpha-Bisabolol	Sesquiterpenol
107	44.52	0.01%	Hexadecanal	Sesquiterpene Aldehyde
108	58.36	0.01%	Tricosane	Alkane