

GC-MS Reference Composition Profile

Product Name	Basil
Botanical Name	Ocimum basilicum
INCI Name	Ocimum Basilicum Oil
Country of Origin	Italy
CAS Number	8015-73-4 / 84775-71-3
EC / EINECS Number	283-900-8
Lot Number	5427956
Analytical method	Representative GC-MS profile dated October 7, 2025. Reported constituent percentages and retention times are reproduced as reference information; this is not analysis of WCA lot 5427956.
Profile Type	Representative estragole-rich Basil profile. Batch COA: methyl chavicol 71.38% and linalool 20.3%; representative GC-MS: estragole 73.56% and linalool 16.97%. Natural lots vary. Co-eluting compounds retain shared reported values. Printed GC total 99.91%; rounded displayed values sum to 99.93%.

Composition Overview

Reference constituent distribution

Composition graphic only - not an instrument chromatogram.

ESTRAGOL		73.56 %
LINALOOL		16.97 %
alpha-CURCUMENE + trans-alpha-BISABOLENE		1.78 %
GERANIAL		0.90 %
NERAL		0.67 %
alpha-trans-BERGAMOTENE		0.62 %
beta-CARYOPHYLLENE		0.56 %

Top Compounds

Compound	%
ESTRAGOL	73.56
LINALOOL	16.97
alpha-CURCUMENE + trans-alpha-BISABOLENE	1.78
GERANIAL	0.90
NERAL	0.67
alpha-trans-BERGAMOTENE	0.62
beta-CARYOPHYLLENE	0.56

Composition Table

No.	RT (min)*	Compound	% / Range
1	6.24	ISOVALERALDEHYDE	0.01
2	8.10	alpha-PINENE	0.08
3	8.73	TERPENIC COMPOUND	0.02
4	9.22	CAMPHENE	0.01
5	10.34	UNDECANE	0.01
6	10.51	beta-PINENE	0.05
7	10.96	SABINENE	0.02
8	12.05	delta3-CARENE	0.01
9	12.56	beta-MYRCENE	0.07
10	13.33	alpha-TERPINENE	0.01
11	14.23	LIMONENE	0.10
12	14.70	1,8-CINEOLE	0.15
13	15.92	cis-beta-OCIMENE	0.02
14	16.52	gamma-TERPINENE	0.01
15	16.81	trans-beta-OCIMENE	0.25

No.	RT (min)*	Compound	% / Range
16	17.74	p-CYMENTE	0.06
17	18.49	TERPINOLENE	0.03
18	18.91	OCTANAL	0.02
19	20.90	CYCLOHEXANONE, 2,2,6-TRIMETHYL-	0.01
20	21.55	5-HEPTEN-2-ONE, 6-METHYL-	0.17
21	24.14	3-HEXEN-1-OL	0.01
22	25.08	3-OCTANOL	0.01
23	25.15	FENCHONE	0.02
24	27.68	alpha,p-DIMETHYLSTYRENE	0.01
25	28.00	LINALOOL cis-OXIDE	0.05
26	28.46	1-OCTEN-3-OL	0.02
27	29.57	MENTHONE	0.04
28	29.78	LINALOOL trans-OXIDE	0.05
29	30.41	OCTYL ACETATE	0.02
30	30.59	EPIPHOTOCITRAL A	0.01
31	31.00	1-HEXANOL, 2-ETHYL-	0.01
32	31.15	ISOMENTHONE	0.03
33	31.74	alpha-COPAENE	0.04
34	32.12	EXO-ISOCITRAL	0.02
35	32.42	CAMPBOR	0.02
36	33.31	beta-BOURBONENE	0.02
37	33.92	alpha-GURJUNENE	0.02
38	34.41	BERGAMOTENE ISOMER	0.02
39	34.88	LINALOOL	16.97
40	35.31	1-OCTANOL	0.04
41	35.76	BERGAMOTENE ISOMER	0.02
42	35.89	MENTHYL ACETATE	0.01
43	36.38	alpha-cis-BERGAMOTENE	0.04
44	36.68	epsilon-CADINENE	0.04
45	37.51	alpha-trans-BERGAMOTENE	0.62
46	37.71	NEOMENTHOL	0.07
47	37.89	beta-ELEMENE + beta-CUBEBENE	0.03
48	38.05	beta-CARYOPHYLLENE	0.56
49	40.50	MENTHOL	0.24
50	40.88	SESQUITERPENE	0.01
51	41.32	FARNESENE ISOMER	0.06
52	42.29	ESTRAGOL	73.56
53	42.35	E-beta-FARNESENE	0.44
54	42.47	SESQUITERPENE	0.10
55	42.68	alpha-HUMULENE	0.30
56	42.94	NERAL	0.67
57	43.24	Z-beta-FARNESENE	0.10
58	43.47	gamma-MUROLENE	0.02
59	43.73	alpha-TERPINEOL	0.15
60	44.70	GERMACRENE D	0.40
61	45.20	beta-SELINENE	0.02
62	45.34	HEXENYLIC ESTER	0.07
63	45.41	alpha-ZINGIBERENE	0.04
64	45.53	SESQUITERPENE	0.04
65	45.90	GERANIAL	0.90
66	45.95	beta-BISABOLENE	0.11
67	46.03	BICYCLOGERMACRENE	0.08
68	46.97	cis-ANETHOL	0.02
69	47.36	delta-CADINENE	0.05
70	47.49	gamma-CADINENE	0.01
71	47.73	1-DECANOL	0.01
72	48.30	beta-SESQUIPHELLANDRENE	0.03
73	48.57	alpha-CURCUMENE + trans-alpha-BISABOLENE	1.78
74	49.58	NEROL	0.08
75	50.85	TERPENIC COMPOUND	0.03
76	51.07	trans-ANETHOL	0.10

No.	RT (min)*	Compound	% / Range
77	51.77	AROMATIC COMPOUND	0.02
78	52.22	GERANIOL	0.07
79	59.84	CARYOPHYLLENE OXIDE	0.02
80	61.02	METHYLEUGENOL	0.05
81	61.64	ANISALDEHYDE	0.03
82	62.91	NEROLIDOL	0.04
83	63.56	cis-1,2-DIHYDROXY-p-MENTH-2-ENE	0.01
84	64.95	SPATHULENOL	0.01
85	68.45	EUGENOL	0.08
86	71.56	alpha-BISABOLOL	0.03
87	72.17	beta-EUDESMOL	0.02
88	73.38	SESQUITERPENIC OXIDE	0.03
89	73.71	trans-LIMONENE-1,2-DIOL	0.01
90	76.52	CHAVICOL	0.03
91	76.90	GERANIC ACID	0.02
92	84.97	CINNAMALDEHYDE, 3-METHOXY-	0.06
93	89.06	AROMATIC COMPOUND	0.03
94	95.17	PALMITIC ACID	0.02

* Reference retention times are reproduced only when supplied in the source; no retention time is estimated. Reference rows do not establish batch composition.