

**Dr. Duke's Phytochemical and Ethnobotanical Database**

**Chemicals Found in *Eucalyptus citriodora***

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
67	1,8-CINEOLE	Leaf Essent. Oil	5000	32000	-0.717969108838231	
67	1,8-CINEOLE	Leaf	50	3580	-0.06974461771091683	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
67	1,8-CINEOLE	Shoot	--	20000	0.1512353485319403	
67	1,8-CINEOLE	Essential Oil	--	--		
0	3,3'-DI-O-METHYL-ELLAGIC-ACID	Bark	--	--		Lowry, J. B. 1968. The Distribution and Potential Taxonomic Value of Alkylated Ellagic Acids. <i>Phytochemistry</i> 7 10: 1803-1813
0	3-METHOXYAROMADENDRIN	Resin, Exudate, Sap	--	--		
0	3-O-METHYL-ELLAGIC-ACID	Bark	--	--		Lowry, J. B. 1968. The Distribution and Potential Taxonomic Value of Alkylated Ellagic Acids. <i>Phytochemistry</i> 7 10: 1803-1813
0	5-HYDROXY-4',7-DIMETHOXY-6,8-DIMETHYLFLAVONE	Leaf	--	--		
0	7-METHOXYAROMADENDRIN	Resin, Exudate, Sap	--	--		
0	7-O-METHYLAROMADENDRIN	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	7-O-METHYLAROMADENDRIN	Root	--	668		
0	ALLO-AROMADENDRENE	Shoot	--	0.1	-0.1869954495858901	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
0	ALPHA-FENCHYL-ALCOHOL	Shoot	--	0.1	-0.4903066233071515	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
2	ALPHA-HUMULENE	Leaf Essent. Oil	--	2000	-0.6471039886127844	
0	ALPHA-P-DIMETHYL-STYRENE	Shoot	--	0.1	-1.0210518370793162	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
11	ALPHA-PHELLANDRENE	Leaf Essent. Oil	--	1000	-0.8574494059207024	
11	ALPHA-PHELLANDRENE	Shoot	--	0.1	-0.3090941644151568	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
28	ALPHA-PINENE	Shoot	--	--		
28	ALPHA-PINENE	Leaf Essent. Oil	2900	6000	-0.7201483597577595	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	ALPHA-PINENE	Leaf	5	380	-0.19987319533034933	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
28	ALPHA-PINENE	Essential Oil	--	--		
13	ALPHA-TERPINENE	Shoot	--	0.1	-0.48093760228289717	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
23	ALPHA-TERPINEOL	Leaf Essent. Oil	3000	4000	-0.7838280847561147	
23	ALPHA-TERPINEOL	Shoot	--	9000	8.99383026200346	
0	ALPHA-TERPINEOL ACETATE	Shoot	--	18000	-1	
0	ALPHA-TERPINYL-ACETATE	Shoot	--	190	-0.21603522466678812	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
0	ALPHA-THUJENE	Shoot	--	0.1	-0.5551253545718478	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
3	AROMADENDRENE	Shoot	--	0.1	-0.18132233610427648	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	AROMADENDRENE	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	AROMADENDRIN	Root	--	267		
3	AROMADENDRIN	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
24	BENZALDEHYDE	Shoot	--	0.1	-0.2247983186195243	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
9	BENZYL-ACETATE	Leaf Essent. Oil	--	--		
0	BETA-CARYOPHYLLENE	Shoot	--	0.1	-0.40976853829945986	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
0	BETA-CARYOPHYLLENE	Leaf Essent. Oil	27000	35000	-0.19751887883201752	
0	BETA-CUBEBENE	Leaf Essent. Oil	--	5000	-0.27151722480926643	
5	BETA-ELEMENE	Shoot	--	0.1	-0.3396749847658091	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
0	BETA-HYDROXYCITRONELLAL	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	BETA-PHELLANDRENE	Leaf Essent. Oil	--	12000	0.07288220829298371	
13	BETA-PINENE	Shoot	--	17000	1.0697157887932147	
13	BETA-PINENE	Leaf	20	300	0.01336781361822673	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	BETA-PINENE	Leaf Essent. Oil	11600	17000	-0.2051606962498346	
13	BETA-PINENE	Essential Oil	--	--		
47	BETA-SITOSTEROL	Root	--	17	-0.2754484120940801	
47	BETA-SITOSTEROL	Leaf	--	--		
47	BETA-SITOSTEROL	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
22	BETULINIC-ACID	Leaf	--	--		
22	BETULINIC-ACID	Root	166.7	167	-0.32723020242894685	
22	BETULINIC-ACID	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	BICYCLOGERMACRENE	Leaf Essent. Oil	--	10000		
35	BORNEOL	Shoot	--	0.1	-0.39869489976509587	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
35	BORNEOL	Leaf Essent. Oil	--	1000	-0.6717160378288602	
9	CAMPHENE	Leaf	1	20	-0.18513314196035818	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	CAMPHENE	Shoot	--	0.1	-0.1342670938252942	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
9	CAMPHENE	Leaf Essent. Oil	--	--		
0	CAMPHOLENIC-ALDEHYDE	Shoot	--	0.1	-0.3149715595301656	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
19	CARVONE	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
31	CARYOPHYLLENE	Leaf Essent. Oil	--	28000	-0.887674564369413	
31	CARYOPHYLLENE	Leaf	15	780	-0.23243507090347945	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	CARYOPHYLLENE-OXIDE	Leaf Essent. Oil	--	1000	-1.3372802814560105	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
53	CITRAL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CITRIODORIN	Leaf	--	--		
20	CITRONELLAL	Shoot	--	563000	4.472076870734973	
20	CITRONELLAL	Leaf	50	18020	2.6441768651034985	
20	CITRONELLAL	Leaf Essent. Oil	320000	851000	1	
20	CITRONELLAL	Essential Oil	--	--		
0	CITRONELLIC-ACID	Shoot	--	47000	4.35889230757669	
15	CITRONELLOL	Leaf Essent. Oil	56000	517000	1.3754627990800758	
15	CITRONELLOL	Shoot	--	78000	5.9919646233410475	
15	CITRONELLOL	Leaf	230	4000	2.2356095710654493	
0	CITRONELLOL-ACETATE	Leaf Essent. Oil	14000	103000		
0	CITRONELLOL-ACETATE	Shoot	--	114000		
2	CITRONELLYL-ACETATE	Shoot	--	1200	4.358662928826771	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	CITRONELLYL-ACETATE	Leaf	20	130	1	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CRYPTONE	Leaf Essent. Oil	--	3000	-1	
10	CUMINALDEHYDE	Shoot	--	0.1	-0.32518936983709645	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
0	ECALYPTIN	Leaf	--	--		
51	ELLAGIC-ACID	Bark	--	--		Lowry, J. B. 1968. The Distribution and Potential Taxonomic Value of Alkylated Ellagic Acids. Phytochemistry 7 10: 1803-1813
0	EO	Shoot	--	10500	0.018840549396875548	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
0	EO	Plant	--	--		
0	EO	Leaf	5000	20000	0.7445770670718886	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	EUCALYPTIN	Leaf	--	--		
0	EUCALYPTIN-ACETATE	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	EUDESMOL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
76	EUGENOL	Essential Oil	--	--		
76	EUGENOL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
61	FERULIC-ACID	Leaf	--	--		
5	FUSTIN	Root	--	83		
11	GAMMA-TERPINENE	Shoot	--	6000	3.7512735106236	
11	GAMMA-TERPINENE	Leaf Essent. Oil	2000	12000	-0.5677373616532569	
35	GERANIOL	Leaf	250	1000	0.23399684457505263	Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	GLOBULOL	Shoot	--	0.1	-0.2230980831244183	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
18	GUAIACOL	Leaf	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	GUAIOL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	HYDROXYCITRONELLAL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ISO-ISOPULEGOLE	Leaf Essent. Oil	--	7000		
0	ISOAMYL-ISOVALERATE	Shoot	--	0.1	-0.4765294039940469	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
0	ISOPROPYLHEXANE	Leaf Essent. Oil	--	12000		
3	ISOPULEGOL	Leaf Essent. Oil	12000	229000	1	
3	ISOPULEGOL	Leaf	35	5960	2.4484137394913246	Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	LEDOL	Shoot	--	0.1	-0.21993254021380645	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
60	LIMONENE	Shoot	--	4000	1.7077573607595666	
60	LIMONENE	Essential Oil	--	--		
60	LIMONENE	Leaf Essent. Oil	--	5000	-0.6561226246926355	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	LIMONENE	Leaf	20	1420	1.046056762223089	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	LINALOL	Leaf	15	180	-0.3359821288942315	
53	LINALOOL	Leaf	15	180	-0.5227959969828526	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
53	LINALOOL	Shoot	--	3000	-0.11096454712265409	
53	LINALOOL	Leaf Essent. Oil	--	3000	-0.6768515885425165	
0	LINALOOL-ACETATE	Leaf Essent. Oil	2000	7500	-0.9659400518731338	
0	LINALOOL-OXIDE	Leaf Essent. Oil	--	9000	-0.14334554477024922	
63	MENTHOL	Leaf Essent. Oil	--	--		
22	MYRCENE	Leaf	1	120	-0.1293732386473364	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
22	MYRCENE	Shoot	--	0.1	-0.34222464567492455	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
22	MYRCENE	Leaf Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	MYRTENOL	Shoot	--	0.1	-0.2513799778000483	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
0	NEO-ISOPULEGOL	Leaf	20	680	-1	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	O-METHYLEUCALYPTIN	Leaf	--	--		
9	OXALIC-ACID	Bark	--	--		
0	P-CYMEN-8-OL	Shoot	--	0.1	-0.17247239346667684	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
16	P-CYMENE	Leaf Essent. Oil	1000	5800	-0.692534761440564	
16	P-CYMENE	Leaf	10	180	-0.25057006213421	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
16	P-CYMENE	Shoot	--	4000	2.6695087722036925	
0	P-MENTHANE-CIS-3,8-DIOL	Leaf	--	--		
0	P-METHANE-CIS-3,8-DIOL	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	PIPERITONE	Shoot	--	0.1	-0.22638062620684046	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
0	ROSE-OXIDE	Shoot	--	10000	1	
87	RUTIN	Leaf	--	12500	-0.2285170026254041	
4	SAKURANETIN	Resin, Exudate, Sap	--	--		
0	SPATHULENOL	Leaf Essent. Oil	--	1000	-1.0161711671763012	
0	SPATHULENOL	Shoot	--	0.1	-0.4442085626228723	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
35	TANNIN	Leaf	--	11600	-1.2077381028807002	
35	TANNIN	Resin, Exudate, Sap	--	482000	1.4131379750921393	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
23	TERPINEN-4-OL	Shoot	--	0.1	-0.16713897346436285	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
23	TERPINEN-4-OL	Leaf Essent. Oil	--	1000	-0.5406868834711872	
0	TERPINENE	Leaf	1	180	-1	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	TERPINOLENE	Leaf	5	160	-0.028274777061727256	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	TERPINOLENE	Leaf Essent. Oil	--	3000	-0.49764555396661486	
2	TRANS-PINOCARVEOL	Shoot	--	85	-0.17436574151237388	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
0	TRITRIACONTAN-16,18-DIONE	Leaf Wax	--	--		
89	URSOLIC-ACID	Leaf	--	--		
89	URSOLIC-ACID	Root	--	67	1	
89	URSOLIC-ACID	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
5	VERBENONE	Shoot	--	0.1	-0.2571527321307905	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.