

## Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in *Eucalyptus globulus*

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
30	(+)-CATECHIN	Leaf	--	--		
0	(+)-LIMONENE	Leaf Essent. Oil	--	--		
0	(-)-ALPHA-PHELLANDRENE	Leaf Essent. Oil	--	--		
0	(-)-TRANS-PINOCARVEOL	Leaf	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
67	1,8-CINEOLE	Essential Oil	--	667000	1.9097239164573967	
67	1,8-CINEOLE	Fruit Essent. Oil	208100	725000	1.395591934022218	
67	1,8-CINEOLE	Shoot	--	728000	10.305152225006955	
67	1,8-CINEOLE	Leaf	3500	29750	3.7465788103160196	
67	1,8-CINEOLE	Leaf Essent. Oil	168000	691200	1.5300608304247285	
0	11,12-DEHYDROURSOLACTONE-ACETATE	Leaf Wax	10000	20000		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	16-HYDROXY-TRITRIACONTAN-18-ONE	Leaf	--	7.5		
1	2,4,6-TRIMETHOXYPHENOL	Bark	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	3'-O-GALLOYL-PROCYANIDIN-B2	Leaf	--	--		Takechi, M., Tanaka, Y., Takehara, M., Nonaka, G. I., Nishioka, I. 1985. Structure and Antiherpetic Activity Among the Tannins. <i>Phytochemistry</i> 24 10: 2245-2250.
0	3'-O-GALLOYL-PRODELPHINIDIN	Leaf	--	--		Takechi, M., Tanaka, Y., Takehara, M., Nonaka, G. I., Nishioka, I. 1985. Structure and Antiherpetic Activity Among the Tannins. <i>Phytochemistry</i> 24 10: 2245-2250.
0	3,3'-DI-O-GALLOYL-PRODELPHINIDIN	Leaf	--	--		Takechi, M., Tanaka, Y., Takehara, M., Nonaka, G. I., Nishioka, I. 1985. Structure and Antiherpetic Activity Among the Tannins. <i>Phytochemistry</i> 24 10: 2245-2250.
0	3,4,5-TRIMETHOXYPHENOL	Bark	--	--		
0	3-BETA-23-DIHYDROXY-URS-12-EN-28-OIC-ACID	Wood	--	10		
0	3-BETA-ACETOXY-11-ALPHA-METHOXY-URS-12-EN-28-OIC-ACID	Wood	--	5		
0	3-ISOPROPYLIDEN-1-ACETYL-5-CYCLOPENTENE	Leaf	--	--		Guenther, E., <i>The Essential Oils</i> , 6 volumes, D. van Nostrand, New York, 1948-1952.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	3-METHOXYAROMADENDRIN	Resin, Exudate, Sap	--	--		
0	3-OMETHYLELLAGIC-ACID-4'RHAMNOSIDE	Bark	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	3-OMETHYLELLAGIC-ACID-4'RHAMNOSIDE	Wood	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
1	4-HYDROXY-TRITRIACONTANE-16,18-DIONE	Leaf	--	6		
0	7-METHOXYAROMADENDRIN	Resin, Exudate, Sap	--	--		
0	8-DEMETHYL-SIDEROXYLIN	Leaf	--	--		
0	8-DEMETHYLEUCALYPTIN	Leaf	--	--		
0	ACETYL-BETULINIC-ACID	Wood	--	--		
0	ACETYL-OLEANOLIC-ACID	Wood	--	--		
0	ACETYLURSOLIC-ACID	Wood	--	49		
0	ALLO-AROMADENDRENE	Fruit Essent. Oil	--	2337001		
0	ALLO-AROMADENDRENE	Leaf Essent. Oil	2000	8000	-0.9551259469186552	
0	ALLO-AROMADENDRENE	Essential Oil	--	--		
0	ALLO-AROMADENDRENE	Shoot	--	6000	7.696423704237425	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALLO-AROMADENDRINE	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	ALPHA-AROMADENDRENE	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	ALPHA-AROMADENDRENE	Fruit Essent. Oil	--	--		
0	ALPHA-BULNESENE	Fruit Essent. Oil	--	59500	1	
0	ALPHA-COPAENE	Leaf Essent. Oil	--	2000	1	
0	ALPHA-EUDESMOL	Leaf Essent. Oil	--	17000		
0	ALPHA-EUDESMOL	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
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.
0	ALPHA-GUAIENE	Fruit Essent. Oil	--	31500	1	
0	ALPHA-GURJUNENE	Fruit Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-GURJUNENE	Leaf Essent. Oil	--	6000	1	
0	ALPHA-P-DIMETHYL-STYRENE	Shoot	--	65	0.13842227102622012	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	Fruit Essent. Oil	--	83000	0.7081332746915394	
11	ALPHA-PHELLANDRENE	Essential Oil	--	1000	-0.5736860307676445	
11	ALPHA-PHELLANDRENE	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
11	ALPHA-PHELLANDRENE	Shoot	--	3000	7.3085148477973965	
11	ALPHA-PHELLANDRENE	Leaf Essent. Oil	1000	343000	0.46075475134298666	
28	ALPHA-PINENE	Shoot	--	119000	11.720652666165982	
28	ALPHA-PINENE	Leaf	1250	8750	0.34354526763390963	
28	ALPHA-PINENE	Essential Oil	--	52000	-0.10249729010199074	
28	ALPHA-PINENE	Leaf Essent. Oil	5000	260000	0.6771772357998844	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	ALPHA-PINENE	Fruit Essent. Oil	--	40900	-0.3076174544185865	
3	ALPHA-SELINENE	Leaf Essent. Oil	--	2000		
13	ALPHA-TERPINENE	Fruit Essent. Oil	--	--		
13	ALPHA-TERPINENE	Shoot	--	0.1	-0.48093760228289717	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.
23	ALPHA-TERPINEOL	Shoot	--	0.1	-0.2857345982558654	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.
23	ALPHA-TERPINEOL	Leaf Essent. Oil	29000	58000	0.30722289388192564	
23	ALPHA-TERPINEOL	Fruit Essent. Oil	--	--		
23	ALPHA-TERPINEOL	Essential Oil	--	9000	-0.3744746961998452	
0	ALPHA-TERPINEOL ACETATE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-TERPINEOL ACETATE	Shoot	--	27000	1	
0	ALPHA-TERPINEOL ACETATE	Leaf Essent. Oil	--	20900	-0.5243058025418297	
0	ALPHA-TERPINYL-ACETATE	Shoot	--	570	-0.09332250978271245	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.
6	ALPHA-THUJONE	Fruit Essent. Oil	--	--		
32	ALPHA-TOCOPHEROL	Leaf	--	333	-0.0008863644217758233	
101	APIGENIN	Leaf	--	--		
3	AROMADENDRENE	Leaf Essent. Oil	8600	268000	1.4141831265968194	
3	AROMADENDRENE	Fruit Essent. Oil	--	--		
3	AROMADENDRENE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	AROMADENDRENE	Leaf	50	350	-0.40806189308755036	
3	AROMADENDRENE	Shoot	--	20000	6.313001041104233	
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	BETA-AMYRIN	Wood	--	9		
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-CEDRENE	Leaf Essent. Oil	--	--		
0	BETA-CUBEBENE	Leaf Essent. Oil	--	1000	-1.066201785226631	
0	BETA-DIKETONE	Leaf Wax	--	560000		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	BETA-ELEMENE	Shoot	--	0.1	-0.3396749847658091	Zrira, S. S., Benjlilali, 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.
13	BETA-EUDESMOL	Leaf Essent. Oil	--	13000	1	
13	BETA-EUDESMOL	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
3	BETA-PHELLANDRENE	Fruit Essent. Oil	--	34300	-0.6379877744813619	
3	BETA-PHELLANDRENE	Essential Oil	--	--		
3	BETA-PHELLANDRENE	Leaf Essent. Oil	--	36000	2.0530780562532986	
13	BETA-PINENE	Fruit Essent. Oil	--	--		
13	BETA-PINENE	Essential Oil	--	2000	-0.6859771042347549	
13	BETA-PINENE	Shoot	--	7000	0.36923568596230105	
13	BETA-PINENE	Leaf Essent. Oil	3900	5000	-0.7824396522094309	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
13	BETA-PINENE	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	BETA-TERPINENE	Fruit Essent. Oil	--	--		
5	BETA-THUJONE	Fruit Essent. Oil	--	--		
0	BETULIC-ACID-METHYL-ESTER	Wood	--	14		
35	BORNEOL	Shoot	--	3000	2.502127358747725	
35	BORNEOL	Leaf Essent. Oil	--	2000	-0.65804010899624	
35	BORNEOL	Fruit Essent. Oil	--	--		
0	BORNEOL-ACETATE	Fruit Essent. Oil	--	--		
2	BUTYRALDEHYDE	Leaf	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
102	CAFFEIC-ACID	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
1	CALYPTOSIDE	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
9	CAMPHENENE	Essential Oil	--	9000	-0.4234452941431629	
9	CAMPHENENE	Leaf Essent. Oil	4000	5100	-0.6956906319616664	
9	CAMPHENENE	Shoot	--	0.1	-0.1342670938252942	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.
9	CAMPHENENE	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
9	CAMPHENENE	Fruit Essent. Oil	--	--		
0	CAMPHOLENIC-ALDEHYDE	Shoot	--	0.1	-0.3149715595301656	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	CAPROALDEHYDE	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	CAPROIC-ACID	Fruit Essent. Oil	--	--		
19	CARVONE	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
31	CARYOPHYLLENE	Leaf Essent. Oil	--	167000	1.3972655179888909	
8	CARYOPHYLLENE-OXIDE	Leaf Essent. Oil	--	3000	-0.9728987333753536	
77	CHLOROGENIC-ACID	Bark	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
77	CHLOROGENIC-ACID	Wood	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
60	CHRYSIN	Leaf	--	--		
0	CIS-TRANS-FARNESOL	Fruit Essent. Oil	--	99500		
53	CITRAL	Fruit Essent. Oil	--	--		
3	CITRIODOROL	Plant	--	--		
3	CITRIODOROL	Resin, Exudate, Sap	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
20	CITRONELLAL	Leaf Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
20	CITRONELLAL	Shoot	--	0.1	-0.22483909928564133	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	CITRONELLIC-ACID	Shoot	--	0.1	-0.2299487807105499	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.
15	CITRONELLOL	Shoot	--	0.1	-0.1773498482378769	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.
15	CITRONELLOL	Leaf Essent. Oil	--	136000	-0.402991928689751	
2	CITRONELLYL-ACETATE	Shoot	--	0.1	-0.23387536673936873	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
0	CRYPTONE	Leaf Essent. Oil	86000	167000	1	
10	CUMINALDEHYDE	Shoot	--	0.1	-0.32518936983709645	Zrira, S. S., Benjlilali, 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.
10	CUMINALDEHYDE	Leaf	25	135	0.2689923506737498	
0	D-CATECHOL	Bark	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	D-CATECHOL	Wood	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	D-LINALOL	Leaf	--	--		
0	D-LINALOOL	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	D-MYRTENAL	Leaf	--	--		
0	D-MYRTENOL	Leaf	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	D-VERBENONE	Leaf	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
5	DAUCOSTEROL	Wood	--	6		
9	DELTA-CADINENE	Leaf Essent. Oil	--	--		
0	DIEPIPALUSTROL	Leaf Essent. Oil	--	--		
51	ELLAGIC-ACID	Leaf	--	--		
51	ELLAGIC-ACID	Bark	--	--		
51	ELLAGIC-ACID	Stem	--	--		
8	ELLAGITANNIN	Leaf	--	--		
0	ELLAGITANNINS	Leaf	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	ENGELETIN	Stem Bark	--	2		
0	EO	Shoot	--	21200	1.0092290806285587	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
0	EO	Leaf	5000	35000	2.0639741997608496	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	EPIGLOBULOL	Leaf Essent. Oil	--	--		
0	EPIGLOBULOL	Leaf	28000	28000	1	
0	EREMOPHILENE	Fruit Essent. Oil	--	--		
10	ERIODICTYOL	Stem Bark	--	0.4		
0	ERYTHRODIOL	Wood	--	10		
24	ETHANOL	Leaf	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	EUCALYPTIN	Leaf	--	--		
7	EUCALYPTONE	Leaf	--	27		
0	EUDESMOL	Fruit Essent. Oil	--	--		
0	EUGLOBAL-IA1	Plant	--	--		
0	EUGLOBAL-IA1	Bud	--	--		
0	EUGLOBAL-IA2	Bud	--	--		
0	EUGLOBAL-IB	Bud	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	EUGLOBAL-IB	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	EUGLOBAL-IB	Leaf	--	--		
0	EUGLOBAL-IC	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	EUGLOBAL-IC	Leaf	--	--		
0	EUGLOBAL-IC	Bud	--	--		
0	EUGLOBAL-IIA	Bud	--	--		
0	EUGLOBAL-IIA	Leaf	--	--		
0	EUGLOBAL-IIA	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	EUGLOBAL-IIB	Bud	--	--		
0	EUGLOBAL-IIB	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	EUGLOBAL-IIC	Bud	--	--		
0	EUGLOBAL-IIC	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	EUGLOBAL-III	Bud	100	100		
0	EUGLOBAL-III	Leaf	10	10		
0	EUGLOBAL-IVB	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	EUGLOBAL-IVB	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	EUGLOBAL-VII	Bud	--	--		
0	EUGLOBAL-VII	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	EUGLOBOL-IA2	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
6	FENCHONE	Fruit Essent. Oil	--	--		
61	FERULIC-ACID	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	FIXED-OIL	Fruit	--	--		
0	FLAVONOIDS	Leaf	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
62	GALLIC-ACID	Bark	--	--		
62	GALLIC-ACID	Leaf	--	--		
62	GALLIC-ACID	Stem	--	--		
0	GAMMA-CADINENE	Fruit Essent. Oil	--	--		
0	GAMMA-CADINENE	Leaf Essent. Oil	--	1000	-0.7812021248174129	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	GAMMA-EUDESMOL	Leaf Essent. Oil	--	6000		
11	GAMMA-TERPINENE	Shoot	--	0.1	-0.3942654916132095	Zrira, S. S., Benjlilali, 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	GAMMA-TERPINENE	Leaf Essent. Oil	1000	89000	0.43854490711065486	
11	GAMMA-TERPINENE	Fruit Essent. Oil	--	--		
11	GAMMA-TERPINENE	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
8	GENTISIC-ACID	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
35	GERANIOL	Essential Oil	--	--		
0	GERANIOL-ACETATE	Essential Oil	--	--		
0	GLOBULOL	Essential Oil	--	69000	1	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	GLOBULOL	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	GLOBULOL	Fruit Essent. Oil	--	--		
0	GLOBULOL	Shoot	--	13000	4.997156125323988	
0	GLOBULOL	Leaf Essent. Oil	13000	34400	1	
0	GURJUNENE	Leaf Essent. Oil	--	--		
30	HYPEROSIDE	Leaf	--	--		
0	I-TERPINEOL	Leaf	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
3	ISOAMYL-ALCOHOL	Leaf	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
3	ISOAMYL-ALCOHOL	Fruit Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	ISOBUTYL-VALERATE	Shoot	--	0.1	-0.5248706028810963	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	ISOFENCHONE	Leaf Essent. Oil	--	3800		
0	ISOPROPYLHEXANE	Leaf Essent. Oil	--	--		
0	ISOPULEGOLE	Leaf Essent. Oil	--	2000	-1	
22	ISOQUERCITRIN	Leaf	--	--		
0	LEDOL	Shoot	--	2000	5.981414190504062	
0	LEDOL	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	LEDOL	Leaf Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	LIMONENE	Shoot	--	0.1	-0.3283880008447348	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	Leaf Essent. Oil	31000	52000	-0.448365224243177	
53	LINALOOL	Leaf Essent. Oil	--	2000	-0.6831836448335925	
53	LINALOOL	Shoot	--	2000	-0.14757543396854364	
0	LINALOOL-ACETATE	Leaf Essent. Oil	--	18000	0.0303635379763657	
0	LINALOOL-OXIDE	Fruit Essent. Oil	--	--		
0	LINALOOL-OXIDE	Leaf Essent. Oil	--	19000	1.2901099029322407	
27	LINOLEIC-ACID	Fruit	--	--		
78	LUTEOLIN	Leaf	--	--		
11	MACROCARPAL-A	Leaf	109	32000		
11	MACROCARPAL-A	Calyx	--	280		
10	MACROCARPAL-B	Leaf	13	33100		
10	MACROCARPAL-B	Calyx	--	180		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	MACROCARPAL-C	Calyx	--	430		
8	MACROCARPAL-C	Leaf	229	56300		
11	MACROCARPAL-D	Leaf	--	18		
11	MACROCARPAL-D	Calyx	--	250		
2	MACROCARPAL-E	Calyx	--	150		
8	MACROCARPAL-H	Leaf	--	23		
8	MACROCARPAL-I	Leaf	--	23		
8	MACROCARPAL-J	Leaf	--	28		
6	MASLINIC-ACID	Leaf	--	--		
22	MYRCENE	Fruit Essent. Oil	--	--		
22	MYRCENE	Shoot	--	5000	5.3645023580366304	
22	MYRCENE	Leaf Essent. Oil	900	1000	-0.3629034834688993	
6	MYRISTIC-ACID	Fruit	--	--		
2	MYRTENOL	Fruit Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	MYRTENOL	Shoot	--	0.1	-0.2513799778000483	Zrira, S. S., Benjlilali, 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.
56	NARINGENIN	Stem Bark	--	0.5		
64	OLEANOLIC-ACID	Leaf	--	--		
18	OLEIC-ACID	Fruit	--	--		
0	P-CYMEN-8-OL	Shoot	--	0.1	-0.17247239346667684	Zrira, S. S., Benjlilali, 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	Essential Oil	--	5000	-0.5921126100575014	
16	P-CYMENE	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
16	P-CYMENE	Shoot	--	0.1	-0.5013233805011584	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	3400	146000	1.3912935106767708	
0	P-DIMETHYL-ALPHA-STYRENE	Shoot	--	3000		
0	P-MENTHANE	Fruit Essent. Oil	--	--		
0	P-METHOXY-CIS-CINNAMOYL-OLEANOLIC-ACID	Wood	--	2.7		
0	P-METHOXY-CIS-CINNAMOYL-URSOLIC-ACID	Wood	--	3.3		
0	P-METHOXY-TRANS-CINNAMOYL-URSOLIC-ACID	Wood	--	4.2		
13	PALMITIC-ACID	Fruit	--	--		
4	PARAFFIN	Leaf	20000	20000		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
12	PINENE	Leaf	1200	8400	1.3619605941453428	
0	PINOCARVEOL	Leaf	20	140		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	PINOCARVONE	Leaf	--	--		
7	PIPERITONE	Fruit Essent. Oil	--	--		
7	PIPERITONE	Shoot	--	1000	-0.03161874369646552	
0	PROANTHOCYANIDIN	Leaf	--	--		
0	PRODELPHINIDIN-B5	Leaf	--	--		Takechi, M., Tanaka, Y., Takehara, M., Nonaka, G. I., Nishioka, I. 1985. Structure and Antiherpetic Activity Among the Tannins. Phytochemistry 24 10: 2245-2250.
43	PROTOCATECHUIC-ACID	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
176	QUERCETIN	Leaf	--	--		
176	QUERCETIN	Stem Bark	--	0.3		
1	QUERCETOL	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	QUERCETOL-3-GLUCOSIDE	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	QUERCETRIN	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
44	QUERCITRIN	Leaf	--	--		
44	QUERCITRIN	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	RHAMNAZIN	Stem Bark	--	0.1		
18	RHAMNETIN	Stem Bark	--	3.5		
87	RUTIN	Leaf	--	--	-1.0045451298553565	
5	SABINENE	Fruit Essent. Oil	--	--		
4	SAKURANETIN	Resin, Exudate, Sap	--	--		
0	SCYLLITOL	Leaf	--	--		
0	SIDEROXYLIN	Leaf	--	--		
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.
0	TANNINS	Leaf	--	110000	0.19910226047685284	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
17	TAXIFOLIN	Stem Bark	--	2		
0	TERPIN-1-EN-4-OL	Essential Oil	--	1000		
23	TERPINEN-4-OL	Leaf Essent. Oil	--	8000	-0.48129072319747757	
23	TERPINEN-4-OL	Shoot	--	3000	1.0763688108037435	
23	TERPINEN-4-OL	Fruit Essent. Oil	--	--		
9	TERPINOLENE	Leaf Essent. Oil	1000	5000	-0.3048955154584189	
71	THYMOL	Fruit Essent. Oil	--	--		
0	TRANS-BETA-OCIMENE	Leaf Essent. Oil	--	1000	-1.3854808535566114	
2	TRANS-PINOCARVEOL	Shoot	--	16000	6.8597544992151915	
2	TRANS-PINOCARVEOL	Essential Oil	--	--		
2	TRANS-PINOCARVEOL	Leaf Essent. Oil	--	9400		
2	TRANS-PINOCARVEOL	Leaf	--	--		
2	TRANS-PINOCARVEOL	Fruit Essent. Oil	--	--		
0	TRANS-VERBENOL	Fruit Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TRITERPENES	Leaf	20000	40000		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	TRITRIACONTANE-16,18-DIONE	Leaf Wax	--	--		
0	TRITRIACONTANE-16,18-DIONE	Plant	--	--		
89	URSOLIC-ACID	Wood	--	8		
89	URSOLIC-ACID	Leaf	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
6	UVAOL	Wood	--	13		
0	VALERALDEHYDE	Leaf	--	--		
5	VERBENONE	Fruit Essent. Oil	--	--		
5	VERBENONE	Shoot	--	1000	1.181949712897411	
1	VIRIDIFLOROL	Leaf Essent. Oil	--	--		
1	VIRIDIFLOROL	Leaf	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	VOMIFOLIOL	Bark	--	--		