

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Mentha arvensis* var. *piperascens*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
77	ZINC	Plant		28.0	-0.23812799612849617	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
0	TRANS-OCIMENE	Essential Oil				Jim Duke's personal files.
0	TRANS-ISOPULEGONE	Leaf				Jim Duke's personal files.
17	THUJONE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
35	TANNIN	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
1	STACHYOSE	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
1	SODIUM	Plant		860.0	-0.25647164723432153	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
0	SH	Plant				--
0	SANTENE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	SABINENE-HYDRATE	Leaf	30.0	160.0	-0.3730620025303552	--
57	ROSMARINIC-ACID	Leaf	71.0	228.0	-0.9802701242157968	--
57	ROSMARINIC-ACID	Plant		28000.0	-0.022447952153288788	Fitoterapia No.62: 166.
0	RESIN	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
1	RAFFINOSE	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	PULEGONE	Plant	100.0	24960.0	2.11770459496291	--
14	POTASSIUM	Plant		35100.0	0.9277235520248976	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
0	PIPERITONE-OXIDE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PIPERITONE-OXIDE	Leaf	320.0	5135.0	0.5008838193806822	--
7	PIPERITONE	Leaf	13.0	1285.0	0.3195633749094698	--
7	PIPERITONE	Leaf	240.0	7700.0	3.6970310693516097	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	PIPERITENONE-OXIDE	Leaf	260.0	7320.0	0.8759003813049827	--
3	PIPERITENONE	Plant				Chemical Constituents of Oriental Herbs (3 diff. books)
0	P-MENTHAN-TRANS-2,5-DIOL	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	P-CYMOL	Leaf	562.0	1800.0	0.1584093813492088	--
16	P-CYMENE	Leaf	9.0	29.0	-0.3760203807398916	--
0	OCTAN-3-OL	Leaf	0.0	10200.0	2.4424856936312707	--
0	NEOISOPULEGONE	Essential Oil				Jim Duke's personal files.
0	NEOISOMENTHOL	Essential Oil				Jim Duke's personal files.
22	MYRCENE	Leaf	10.0	2485.0	0.7240430590989703	--
0	MENTHONONE	Plant				Chemical Constituents of Oriental Herbs (3 diff. books)
30	MENTHONE	Plant	71.0	24000.0	3.4108177532842308	--
30	MENTHONE	Leaf	250.0	25680.0	2.6118994892791703	--
0	MENTHOL-ACETATE	Leaf	60.0	2215.0	1.0	--
63	MENTHOL	Leaf	1000.0	24385.0	2.2215192266445816	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	MENTHOFUROLACTONE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	MENTHOFURAN	Plant	4200.0	12600.0	1.6912182092538641	--
14	MANGANESE	Plant		44.0	-0.3795487464259209	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
65	MAGNESIUM	Plant		2830.0	-0.38378745316107926	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
78	LUTEOLIN	Shoot				Jim Duke's personal files.
0	LINALOOL-ACETATE	Leaf	690.0	2215.0		--
53	LINALOOL	Leaf				Jim Duke's personal files.
0	LINALOL-ACETATE	Leaf	690.0	2215.0		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	LINALOL	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
60	LIMONENE	Leaf	20.0	3520.0	3.2552582140948236	--
2	L-MENTHYL-ACETATE	Plant	85.0	4815.0		--
3	L-MENTHOL	Plant	373.0	29515.0		--
0	KETONES	Plant	336.0	1008.0		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
5	ISOVALERIC-ACID	Plant	30.0	90.0	1.0	Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
1	ISOVALERALDEHYDE	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
4	ISOPULEGONE	Leaf	240.0	770.0	-1.4142135623730947	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ISOPULEGOL	Essential Oil				Jim Duke's personal files.
3	ISOMENTHONE	Leaf	300.0	600.0	-0.4825959961896006	--
1	ISOMENTHOL	Essential Oil				Jim Duke's personal files.
6	IRON	Plant		400.0	-0.2672486162776693	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
31	HESPERIDIN	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	GERMACRENE-D	Leaf	300.0	400.0	-0.20129073177947823	--
2	GERMACRENE-D	Essential Oil				Jim Duke's personal files.
11	GAMMA-TERPINENE	Leaf		900.0	1.36337998309933	--
11	GAMMA-TERPINENE	Essential Oil				Jim Duke's personal files.
6	FURFURAL	Plant	2.0	5.0	-0.4983416206388216	Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
13	FORMIC-ACID	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
76	EUGENOL	Essential Oil				Jim Duke's personal files.
0	ETHYL-AMYL-CARBINOL	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	EO	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	EO	Plant	10000.0	32100.0	1.699414490711653	--
0	DL-ISOMENTHONE	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	DIOSMETIN-7-O-BETA-D-GLUCOSIDE	Shoot				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	D-3-OCTANOL	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
12	COPPER	Plant		20.0	0.6626022066114992	Suziki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
3	CIS-OCIMENE	Essential Oil				Jim Duke's personal files.
0	CIS-ISOPULEGONE	Leaf				Jim Duke's personal files.
0	CINEOLE	Leaf	40.0	1785.0	-0.6151264776039638	--
0	CHLOROPHYLL-B	Tissue Culture				Jim Duke's personal files.
0	CHLOROPHYLL-A	Tissue Culture				Jim Duke's personal files.
31	CARYOPHYLLENE	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
19	CARVONE	Leaf	8100.0	26000.0	5.048754540985525	--
19	CARVONE	Essential Oil				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CARVOMENTHONE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	CAPROIC-ACID	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
9	CAMPHENE	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
28	CALCIUM	Plant		13500.0	-0.009562051564718019	Suziki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
13	BETA-PINENE	Plant	10.0	1445.0	1.124729385882718	--
13	BETA-PINENE	Leaf		800.0	0.7508636062406463	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	BETA-PHELLANDRENE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	BETA-CARYOPHYLLENE	Leaf		700.0	0.007903496850210601	--
0	BETA-CAR-3-ENE	Essential Oil				Jim Duke's personal files.
7	ANISALDEHYDE	Shoot				Jim Duke's personal files.
0	ALPHA-THUJENE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	ALPHA-PINENE	Plant	10.0	300.0	-0.26916907964228254	--
0	ALPHA,GAMMA-HEXENYL-PHENYL-ACETATE	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	ALPHA,BETA-HEXENIC-ACID	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	ACETYLMENTHOL	Plant				Chemical Constituents of Oriental Herbs (3 diff. books)
16	ACETIC-ACID	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	ACACETIN-7-O-BETA-D-GLUCOSIDE	Shoot				Jim Duke's personal files.
0	4',5,7-TRIHYDROXY-FLAVONE-O-BETA-D-GLUCOSIDE	Shoot				Jim Duke's personal files.
0	4',5,7-TRIHYDROXY-FLAVONE-7-ALPHA-L-RHAMNOSYL-BETA-D-GLUCOSIDE	Shoot				Jim Duke's personal files.
0	3-METHYLPENTANOL	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	3(5',5'-DIMETHYL-TETRAHYDROFURAN-2'-YL)-BUT-CIS-2-EN-1-OL	Plant		1.4		--
0	3(5',5'-DIMETHYL-TETRAHYDROFURAN-2'-YL)-BUT-CIS-2-EN-1-OL	Essential Oil		1.4	-0.7074110008631054	Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	3',5,7-TRIHYDROXY-4'-METHOXY-FLAVONE-O-BETA-D-GLUCOSIDE	Shoot				Jim Duke's personal files.
0	3',4',5,7-TETRAHYDROXY-FLAVONE-7-ALPHA-L-RHAMNOSYL-BETA-D-GLUCOSIDE	Shoot				Jim Duke's personal files.
0	1-P-MENTHEN-3-ONE	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
67	1,8-CINEOLE	Leaf				Jim Duke's personal files.
1	(-)-PIPERITONE	Leaf	240.0	7700.0	1.0	--
0	(-)-PIPERITENONE-OXIDE	Leaf	3330.0	10595.0		--
2	(-)-MENTHONE	Leaf	500.0	4400.0	-0.41193606418331424	--
0	(-)-MENTHOL-ACETATE	Leaf	10.0	32.0		--
4	(-)-MENTHOL	Leaf	1500.0	9600.0	-0.13664468500079888	--
0	(-)-LINALYL-ACETATE	Leaf		0.0	-1.0	--
0	(-)-LINALOOL	Leaf	3900.0	4000.0	0.737154384403507	--
0	(-)-LIMONENE	Leaf		1600.0	0.6735227011412723	--
0	(-)-CARVONE	Essential Oil				Jim Duke's personal files.
0	(-)-CARVONE	Leaf		7300.0	0.8387456988737643	--
3	(-)-BORNEOL	Leaf	500.0	600.0		--
4	(+)-PULEGONE	Plant		25455.0	1.0	--
4	(+)-PULEGONE	Leaf	1100.0	8400.0	1.6412173114963589	--
0	(+)-PIPERITONE	Leaf		1400.0		--
1	(+)-PIPERITENONE-OXIDE	Leaf		2900.0	-1.0692702191867607	--
0	(+)-PIPERITENONE	Leaf	400.0	700.0		--
0	(+)-OCTAN-3-ONE	Leaf	9000.0	27000.0		--
0	(+)-NEOMENTHOL	Leaf	1100.0	2200.0	0.9156775285682353	--
0	(+)-MENTHYL-ACETATE	Leaf	300.0	1900.0		--
0	(+)-MENTHOFURAN	Leaf		32.0	-0.7587175787128734	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	(+)-ISOMENTHONE	Leaf	240.0	7062.0	1.2644952641479401	--
2	(+)-CARVONE	Essential Oil				Jim Duke's personal files.
0	(+)-8-ACETOXY-CARVONE	Essential Oil				Jim Duke's personal files.
0	(+)-1,2-EPOXYNEOMENTHYL-ACETATE	Leaf		5000.0		--