

Dr. Duke's Phytochemical and Ethnobotanical Databases

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

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	(+)-1,2-EPOXYNEOMENTHYL-ACETATE	Leaf		5000.0		--
0	(+)-8-ACETOXY-CARVONE	Essential Oil				Jim Duke's personal files.
2	(+)-CARVONE	Essential Oil				Jim Duke's personal files.
0	(+)-ISOMENTHONE	Leaf	240.0	7062.0	1.2644952641479401	--
0	(+)-MENTHOFURAN	Leaf		32.0	-0.7587175787128734	--
0	(+)-MENTHYL-ACETATE	Leaf	300.0	1900.0		--
0	(+)-NEOMENTHOL	Leaf	1100.0	2200.0	0.9156775285682353	--
0	(+)-OCTAN-3-ONE	Leaf	9000.0	27000.0		--
0	(+)-PIPERITENONE	Leaf	400.0	700.0		--
1	(+)-PIPERITENONE-OXIDE	Leaf		2900.0	-1.0692702191867607	--
0	(+)-PIPERITONE	Leaf		1400.0		--
4	(+)-PULEGONE	Plant		25455.0	1.0	--
4	(+)-PULEGONE	Leaf	1100.0	8400.0	1.6412173114963589	--
3	(-)-BORNEOL	Leaf	500.0	600.0		--
0	(-)-CARVONE	Essential Oil				Jim Duke's personal files.
0	(-)-CARVONE	Leaf		7300.0	0.8387456988737643	--
0	(-)-LIMONENE	Leaf		1600.0	0.6735227011412723	--
0	(-)-LINALOOL	Leaf	3900.0	4000.0	0.737154384403507	--
0	(-)-LINALYL-ACETATE	Leaf		0.0	-1.0	--
4	(-)-MENTHOL	Leaf	1500.0	9600.0	-0.13664468500079888	--
0	(-)-MENTHOL-ACETATE	Leaf	10.0	32.0		--
2	(-)-MENTHONE	Leaf	500.0	4400.0	-0.41193606418331424	--
0	(-)-PIPERITENONE-OXIDE	Leaf	3330.0	10595.0		--
1	(-)-PIPERITONE	Leaf	240.0	7700.0	1.0	--
67	1,8-CINEOLE	Leaf				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	1-P-MENTHEN-3-ONE	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	3',4',5,7-TETRAHYDROXY-FLAVONE-7-ALPHA-L-RHAMNOSYL-BETA-D-GLUCOSIDE	Shoot				Jim Duke's personal files.
0	3',5,7-TRIHYDROXY-4'-METHOXY-FLAVONE-O-BETA-D-GLUCOSIDE	Shoot				Jim Duke's personal files.
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.
0	3(5',5'-DIMETHYL-TETRAHYDROFURAN-2'-YL)-BUT-CIS-2-EN-1-OL	Plant		1.4		--
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	4',5,7-TRIHYDROXY-FLAVONE-7-ALPHA-L-RHAMNOSYL-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	ACACETIN-7-O-BETA-D-GLUCOSIDE	Shoot				Jim Duke's personal files.
16	ACETIC-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)
0	ALPHA,BETA-HEXENIC-ACID	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	ALPHA,GAMMA-HEXENYL-PHENYL-ACETATE	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
28	ALPHA-PINENE	Plant	10.0	300.0	-0.26916907964228254	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-THUJENE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	ANISALDEHYDE	Shoot				Jim Duke's personal files.
0	BETA-CAR-3-ENE	Essential Oil				Jim Duke's personal files.
0	BETA-CARYOPHYLLENE	Leaf		700.0	0.007903496850210601	--
3	BETA-PHELLANDRENE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	BETA-PINENE	Plant	10.0	1445.0	1.124729385882718	--
13	BETA-PINENE	Leaf		800.0	0.7508636062406463	--
28	CALCIUM	Plant		13500.0	-0.009562051564718019	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
9	CAMPHENE	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
1	CAPROIC-ACID	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	CARVOMENTHONE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
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.
31	CARYOPHYLLENE	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	CHLOROPHYLL-A	Tissue Culture				Jim Duke's personal files.
0	CHLOROPHYLL-B	Tissue Culture				Jim Duke's personal files.

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0	CINEOLE	Leaf	40.0	1785.0	-0.6151264776039638	--
0	CIS-ISOPULEGONE	Leaf				Jim Duke's personal files.
3	CIS-OCIMENE	Essential Oil				Jim Duke's personal files.
12	COPPER	Plant		20.0	0.6626022066114992	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
0	D-3-OCTANOL	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.
0	DL-ISOMENTHONE	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	ETHYL-AMYL-CARBINOL	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
76	EUGENOL	Essential Oil				Jim Duke's personal files.
13	FORMIC-ACID	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
6	FURFURAL	Plant	2.0	5.0	-0.4983416206388216	Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
11	GAMMA-TERPINENE	Leaf		900.0	1.36337998309933	--
11	GAMMA-TERPINENE	Essential Oil				Jim Duke's personal files.
2	GERMACRENE-D	Leaf	300.0	400.0	-0.20129073177947823	--
2	GERMACRENE-D	Essential Oil				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
31	HESPERIDIN	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
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.
1	ISOMENTHOL	Essential Oil				Jim Duke's personal files.
3	ISOMENTHONE	Leaf	300.0	600.0	-0.4825959961896006	--
3	ISOPULEGOL	Essential Oil				Jim Duke's personal files.
4	ISOPULEGONE	Leaf	240.0	770.0	-1.4142135623730947	--
1	ISOVALERALDEHYDE	Plant				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.
0	KETONES	Plant	336.0	1008.0		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
3	L-MENTHOL	Plant	373.0	29515.0		--
2	L-MENTHYL-ACETATE	Plant	85.0	4815.0		--
60	LIMONENE	Leaf	20.0	3520.0	3.2552582140948236	--
0	LINALOL	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
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.
53	LINALOOL	Leaf				Jim Duke's personal files.
0	LINALOOL-ACETATE	Leaf	690.0	2215.0		--
78	LUTEOLIN	Shoot				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
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.
5	MENTHOFURAN	Plant	4200.0	12600.0	1.6912182092538641	--
0	MENTHOFUROLACTONE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
63	MENTHOL	Leaf	1000.0	24385.0	2.2215192266445816	--
0	MENTHOL-ACETATE	Leaf	60.0	2215.0	1.0	--
30	MENTHONE	Plant	71.0	24000.0	3.4108177532842308	--
30	MENTHONE	Leaf	250.0	25680.0	2.6118994892791703	--
0	MENTHONONE	Plant				Chemical Constituents of Oriental Herbs (3 diff. books)
22	MYRCENE	Leaf	10.0	2485.0	0.7240430590989703	--
0	NEOISOMENTHOL	Essential Oil				Jim Duke's personal files.
0	NEOISOPULEGONE	Essential Oil				Jim Duke's personal files.
0	OCTAN-3-OL	Leaf	0.0	10200.0	2.4424856936312707	--
16	P-CYMENE	Leaf	9.0	29.0	-0.3760203807398916	--
0	P-CYMOL	Leaf	562.0	1800.0	0.1584093813492088	--
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.
3	PIPERITENONE	Plant				Chemical Constituents of Oriental Herbs (3 diff. books)
2	PIPERITENONE-OXIDE	Leaf	260.0	7320.0	0.8759003813049827	--
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.

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7	PIPERITONE	Leaf	13.0	1285.0	0.3195633749094698	--
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	--
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.
28	PULEGONE	Plant	100.0	24960.0	2.11770459496291	--
1	RAFFINOSE	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	RESIN	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
57	ROSMARINIC-ACID	Plant		28000.0	-0.022447952153288788	Fitoterapia No.62: 166.
57	ROSMARINIC-ACID	Leaf	71.0	228.0	-0.9802701242157968	--
0	SABINENE-HYDRATE	Leaf	30.0	160.0	-0.3730620025303552	--
0	SANTENE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	SH	Plant				--
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.
1	STACHYOSE	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
35	TANNIN	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
17	THUJONE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TRANS-ISOPULEGONE	Leaf				Jim Duke's personal files.
0	TRANS-OCIMENE	Essential Oil				Jim Duke's personal files.
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.