

Dr. Duke's Phytochemical and Ethnobotanical Database

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

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	(+)-1,2-EPOXYNEOMENTHYL-ACETATE	Leaf	--	5000		
0	(+)-8-ACETOXY-CARVONE	Essential Oil	--	--		Jim Duke's personal files.
2	(+)-CARVONE	Essential Oil	--	--		Jim Duke's personal files.
0	(+)-ISOMENTHONE	Leaf	240	7062	1.2644952641479401	
0	(+)-MENTHOFURAN	Leaf	32	32	-0.7587175787128734	
0	(+)-MENTHYL-ACETATE	Leaf	300	1900		
0	(+)-NEOMENTHOL	Leaf	1100	2200	0.9156775285682353	
0	(+)-OCTAN-3-ONE	Leaf	9000	27000		
0	(+)-PIPERITENONE	Leaf	400	700		
1	(+)-PIPERITENONE-OXIDE	Leaf	--	2900	-1.0692702191867607	
0	(+)-PIPERITONE	Leaf	--	1400		
4	(+)-PULEGONE	Leaf	1100	8400	1.6412173114963589	
4	(+)-PULEGONE	Plant	--	25455	1	
3	(-)-BORNEOL	Leaf	500	600		
0	(-)-CARVONE	Leaf	--	7300	0.8387456988737643	
0	(-)-CARVONE	Essential Oil	--	--		Jim Duke's personal files.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	(-)-LIMONENE	Leaf	--	1600	0.6735227011412723	
0	(-)-LINALOOL	Leaf	3900	4000	0.737154384403507	
0	(-)-LINALYL-ACETATE	Leaf	--	--	-1	
4	(-)-MENTHOL	Leaf	1500	9600	-0.13664468500079888	
0	(-)-MENTHOL-ACETATE	Leaf	10	32		
2	(-)-MENTHONE	Leaf	500	4400	-0.41193606418331424	
0	(-)-PIPERITENONE-OXIDE	Leaf	3330	10595		
1	(-)-PIPERITONE	Leaf	240	7700	1	
67	1,8-CINEOLE	Leaf	--	--		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.
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	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		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	300	-0.26916907964228254	
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	0.007903496850210601	
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	1445	1.124729385882718	
13	BETA-PINENE	Leaf	--	800	0.7508636062406463	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	CALCIUM	Plant	13500	13500	-0.009562051564718019	Suziki, 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	26000	5.048754540985525	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
0	CINEOLE	Leaf	40	1785	-0.6151264776039638	
0	CIS-ISOPULEGONE	Leaf	--	--		Jim Duke's personal files.
3	CIS-OCIMENE	Essential Oil	--	--		Jim Duke's personal files.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	COPPER	Plant	20	20	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	10000	32100	1.699414490711653	
0	EO	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	5	-0.4983416206388216	Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
11	GAMMA-TERPINENE	Essential Oil	--	--		Jim Duke's personal files.
11	GAMMA-TERPINENE	Leaf	--	900	1.36337998309933	
2	GERMACRENE-D	Essential Oil	--	--		Jim Duke's personal files.
2	GERMACRENE-D	Leaf	300	400	-0.20129073177947823	

Activity 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	400	-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	600	-0.4825959961896006	
3	ISOPULEGOL	Essential Oil	--	--		Jim Duke's personal files.
4	ISOPULEGONE	Leaf	240	770	-1.4142135623730947	
1	ISOVALERALDEHYDE	Plant	--	--		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
5	ISOVALERIC-ACID	Plant	30	90	1	Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	KETONES	Plant	336	1008		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
3	L-MENTHOL	Plant	373	29515		
2	L-MENTHYL-ACETATE	Plant	85	4200		
60	LIMONENE	Leaf	20	3520	3.2552582140948236	
0	LINALOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	LINALOL-ACETATE	Leaf	690	2215		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	2215		
78	LUTEOLIN	Shoot	--	--		Jim Duke's personal files.
65	MAGNESIUM	Plant	2830	2830	-0.38378745316107926	Suziki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
14	MANGANESE	Plant	44	44	-0.3795487464259209	Suziki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
5	MENTHOFURAN	Plant	4200	12600	1.6912182092538641	

Activity 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.
63	MENTHOL	Leaf	1000	24385	2.2215192266445816	
0	MENTHOL-ACETATE	Leaf	60	2215	1	
30	MENTHONE	Leaf	250	25680	2.6118994892791703	
30	MENTHONE	Plant	71	24000	3.4108177532842308	
0	MENTHONONE	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
22	MYRCENE	Leaf	10	2485	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	--	10200	2.4424856936312707	
16	P-CYMENE	Leaf	9	29	-0.3760203807398916	
0	P-CYMOL	Leaf	562	1800	0.1584093813492088	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	7320	0.8759003813049827	
7	PIPERITONE	Leaf	13	1285	0.3195633749094698	
7	PIPERITONE	Leaf	240	7700	3.6970310693516097	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	PIPERITONE-OXIDE	Leaf	320	5135	0.5008838193806822	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PIPERITONE-OXIDE	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	POTASSIUM	Plant	35100	35100	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	24960	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.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
57	ROSMARINIC-ACID	Leaf	71	228	-0.9802701242157968	
57	ROSMARINIC-ACID	Plant	28000	28000	-0.022447952153288788	Fitoterapia No.62: 166.
0	SABINENE-HYDRATE	Leaf	30	160	-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	860	-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.

Activity 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	28	-0.23812799612849617	Suzuki, A., Morimoto, I., and Okitsu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.