

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Centella asiatica*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
176	QUERCETIN	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
112	ASCORBIC-ACID	Leaf	40.0	374.0	-0.40921766271262444	--
112	ASCORBIC-ACID	Plant		138.0	-0.5612889938563121	--
77	ZINC	Bark		3.4	-0.9069023286651865	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
77	ZINC	Leaf	0.4	3.4	-0.5059022324796413	--
75	KAEMPFEROL	Plant				--
75	KAEMPFEROL	Leaf				Jim Duke's personal files.
65	MAGNESIUM	Leaf	342.0	3200.0	-0.3574611579280929	--
60	LIMONENE	Shoot				Jim Duke's personal files.
60	SELENIUM	Leaf	0.1	1.2	-0.29034536355768803	--
53	LINALOOL	Shoot				Jim Duke's personal files.
53	BETA-CAROTENE	Leaf	40.0	369.0	0.46903611401255635	--
47	BETA-SITOSTEROL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
47	BETA-SITOSTEROL	Essential Oil		2000.0	1.0	Jim Duke's personal files.
41	CAMPHOR	Essential Oil				--
39	NIACIN	Leaf	12.0	112.0	0.17636268788895457	--
35	GERANIOL	Shoot				Jim Duke's personal files.
35	TANNIN	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
31	THIAMIN	Leaf	1.5	14.0	1.1869303740705777	--
28	ALPHA-PINENE	Shoot				Jim Duke's personal files.
28	ALPHA-PINENE	Essential Oil		2000.0	-0.5424708227492797	Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	ALPHA-PINENE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
28	CALCIUM	Leaf	1700.0	15890.0	-0.17404285585996676	--
27	LINOLEIC-ACID	Plant				--
24	PECTIN	Leaf	6420.0	60000.0	0.848030969096559	--
24	CHROMIUM	Leaf	0.1	1.0	-0.5613457205769528	--
23	ALPHA-TERPINEOL	Shoot				Jim Duke's personal files.
22	ISOQUERCITRIN	Leaf				Jim Duke's personal files.
22	MYRCENE	Shoot				Jim Duke's personal files.
22	MYRCENE	Essential Oil		6000.0	-0.3653970753458515	Jim Duke's personal files.
22	BETULINIC-ACID	Plant		1100.0	-0.49265454919484347	Jim Duke's personal files.
19	ASIATICOSIDE	Plant				--
19	ASIATICOSIDE	Leaf	700.0	1200.0		Jim Duke's personal files.
19	ASIATICOSIDE	Shoot				Jim Duke's personal files.
18	OLEIC-ACID	Plant				--
17	FARNESOL	Shoot				Jim Duke's personal files.
15	FIBER	Leaf	20000.0	187000.0	0.3149049121779396	--
15	RIBOFLAVIN	Leaf	1.4	13.0	-0.11692421020247182	--
14	POTASSIUM	Leaf	414.0	3870.0	-1.169036049980163	--
14	MANGANESE	Leaf	3.0	27.7	-0.41383578503505414	--
13	BETA-PINENE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
13	PALMITIC-ACID	Plant				--
13	BETA-PINENE	Essential Oil		2000.0	-0.6859771042347549	Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	STIGMASTEROL	Plant		40.0	-0.8073781309648732	=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
12	GLYCINE	Plant				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
12	STIGMASTEROL	Essential Oil		2000.0		Jim Duke's personal files.
11	NEROLIDOL	Shoot				Jim Duke's personal files.
11	GAMMA-TERPINENE	Shoot				Jim Duke's personal files.
11	GAMMA-TERPINENE	Essential Oil		4000.0	-0.767502970243684	Jim Duke's personal files.
10	NEROL	Shoot				Jim Duke's personal files.
9	DELTA-CADINENE	Shoot				Jim Duke's personal files.
9	CAMPHENE	Shoot				Jim Duke's personal files.
8	INOSITOL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
8	STEARIC-ACID	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	BRAHMINOSIDE	Plant		1600.0		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
8	CARYOPHYLLENE-OXIDE	Shoot				Jim Duke's personal files.
8	GLUTAMIC-ACID	Plant				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
7	BRAHMOSIDE	Plant		3700.0		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
7	ASTRAGALIN	Leaf				Jim Duke's personal files.
7	GLUCOSE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
6	BETA-BISABOLENE	Shoot				Jim Duke's personal files.
6	IRON	Leaf	3.0	29.0	-0.8470707525252408	--
5	BETA-ELEMENE	Essential Oil		30000.0	-0.48593246550536906	Jim Duke's personal files.
5	ALUMINUM	Leaf	220.0	2060.0	1.430229610546625	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	BETA-ELEMENE	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
5	BETA-SESQUIPELLANDRENE	Shoot				Jim Duke's personal files.
5	SAPONINS	Leaf	268.0	2500.0	-1.0907412926645894	--
4	PELLANDRENE	Plant				Jim Duke's personal files.
4	PHOSPHORUS	Leaf	300.0	2800.0	-0.39951935749949974	--
4	SILICON	Leaf	1.5	14.0	-0.37155124751733193	--
4	TIN	Leaf	1.3	12.0	-0.4331991239429111	--
3	ASPARTIC-ACID	Plant				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
3	PYRIDINE	Shoot				Jim Duke's personal files.
2	METHANOL	Plant				--
2	GERMACRENE-D	Shoot				Jim Duke's personal files.
2	ALPHA-HUMULENE	Shoot				Jim Duke's personal files.
2	GERMACRENE-D	Essential Oil		160000.0	1.0	Jim Duke's personal files.
2	CAMPESTEROL	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
2	ELAIDIC-ACID	Plant				--
2	MADECASSOSIDE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	OXYASIATICOSIDE	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
2	COBALT	Leaf	0.8	7.3	-0.2554961829884984	--
2	MADECASSOSIDE	Shoot				Jim Duke's personal files.
2	TRANS-BETA-FARNESENE	Plant				--
2	CAMPESTEROL	Essential Oil		2000.0		Jim Duke's personal files.
2	GERMACRENE-D	Plant				--
1	2,3-DIHYDROBENZOFURAN	Shoot				Jim Duke's personal files.
1	SODIUM	Leaf	1113.0	10400.0	1.1998266498363401	--
1	TOLUENE	Shoot				Jim Duke's personal files.
1	ASIATIC-ACID	Plant				--
1	LIGNOCERIC-ACID	Plant				--
1	RAFFINOSE	Plant				--
0	HYDROCOTYLEGENINS	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	CENTELLOSE	Plant				--
0	THANKUNISIDE	Plant				--
0	FIBER(CRUDE)	Leaf		187000.0	1.5553583414475418	--
0	BETULIC-ACID	Plant		1100.0		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-COPAENE	Essential Oil		9000.0	-0.36082830563118673	Jim Duke's personal files.
0	GERMACRENE	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	MESOINOSITAL	Plant				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
0	CENTELLINIC-ACID	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK. 362 pp, 1988, reprint 1989.
0	THANKUNIC-ACID	Plant				--
0	BETA-CHAMIGRENE	Shoot				Jim Duke's personal files.
0	EO	Leaf	321.0	6000.0	-0.4868602567711417	--
0	ISOTHANKUNISIDE	Plant				--
0	ALPHA-CHAMIGRENE	Shoot				Jim Duke's personal files.
0	PETAN-1-AL	Shoot				Jim Duke's personal files.
0	ASIATICENTOIC-ACID	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	MEDICASSIC-ACID	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	CENTELIC-ACID	Plant				--
0	OCT-TRANS-2-EN-1-AL	Shoot				Jim Duke's personal files.
0	BETA-CARYOPHYLLENE	Shoot				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ISOTHANKUNIC-ACID	Plant				--
0	BETA-FARNESENE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	FAT	Leaf	5992.0	56000.0	-0.00920837567589425	--
0	ALPHA-ALANINE	Plant				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
0	2-METHYL-BUTAN-2-OL	Shoot				Jim Duke's personal files.
0	CARBOHYDRATES	Leaf	70192.0	656000.0	0.35111060724486526	--
0	NON-3-EN-2-ONE	Shoot				Jim Duke's personal files.
0	FURAN-2-CARBOXALDEHYDE	Shoot				Jim Duke's personal files.
0	AMINOBYTRATE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	BETA-CARYOPHYLLENE	Essential Oil		125000.0	0.1933351753509813	Jim Duke's personal files.
0	ISOBRAHMIC-ACID	Plant		9000.0		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
0	EO	Plant	3000.0	6000.0	-0.2841392284469577	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	7-GLUCOSYLKAEMPFEROL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BETA-CARYOPHYLLENE	Plant				--
0	P-CYMOL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	3-GLUCOSYLQUERCETIN	Plant				--
0	1-METHYL-4-(1,2,2-TRIMETHYL-CYCLO-PENTYL)-BENZENE	Shoot				Jim Duke's personal files.
0	EPIGLOBULOL	Shoot				Jim Duke's personal files.
0	BETA-ACORADIENE	Shoot				Jim Duke's personal files.
0	M-XYLENE	Shoot				Jim Duke's personal files.
0	INDOCENTOIC-ACID	Plant				--
0	3-GLUCOSYLKAEMPFEROL	Plant				--
0	P-VINYL-GUAIACOL	Shoot				Jim Duke's personal files.
0	WATER	Plant		893000.0	0.5225843122637761	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	CENTELLA-ASIATICA-COMPOUND-BK	Plant				Jim Duke's personal files.
0	WATER	Leaf		893000.0	0.4258710730214559	--
0	MADECASSIC-ACID	Plant				--
0	MESO-INOSITOL	Plant		15.0		Jim Duke's personal files.
0	WIDDRENE	Shoot				Jim Duke's personal files.
0	HYDROCOTYLIN	Plant		16.0		--
0	RESIN	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	CINEOLE	Essential Oil				--
0	HEXAN-1-AL	Shoot				Jim Duke's personal files.
0	VELLARINE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SAPONIN	Plant	11000.0	80000.0	1.6640036208230826	--
0	THIAMINE	Leaf	1.5	14.0	2.1449383339093373	--
0	MADASIATIC-ACID	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	ASIATICOSIDE-B	Leaf				Jim Duke's personal files.
0	HEX-3-EN-2-ONE	Shoot				Jim Duke's personal files.
0	BRAHMIC-ACID	Plant		970.0		--
0	SUGARS	Leaf	9630.0	90000.0	0.3611228146781439	--
0	ASIATICOSIDE-A	Leaf				Jim Duke's personal files.
0	LINAMARASE	Leaf				Jim Duke's personal files.
0	POLYACETYLENES	Root				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	N-DODECANE	Essential Oil				--
0	CENTOIC-ACID	Plant				--
0	HEPTAN-1-AL	Shoot				Jim Duke's personal files.
0	BICYCLOELEMENE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	BORNEOL-ACETATE	Essential Oil		2000.0	-0.745653834002719	Jim Duke's personal files.
0	RHAMNOSE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	ASH	Leaf	16050.0	150000.0	0.5487949419882225	--
0	LIGNOCENE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	MYO-INOSITOL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CENTELLOSIDE	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	HEPT-TRANS-2-EN-1-AL	Shoot				Jim Duke's personal files.
0	BICYCLOELEMENE	Essential Oil		13000.0		Jim Duke's personal files.
0	FIBER(DIETARY)	Leaf		302000.0	-0.8718975702234967	--
0	KILOCALORIES	Leaf	340.0	3180.0	0.2609973458508899	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	PROTEIN	Leaf	16050.0	150000.0	-0.6169641238666383	--
0	POPULNIN	Leaf				Jim Duke's personal files.
0	INDOCENTELLOSIDE	Plant		4000.0		Jim Duke's personal files.