

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Centella asiatica*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	INDOCENTOIC-ACID	Plant				--
0	HEPTAN-1-AL	Shoot				Jim Duke's personal files.
0	3-GLUCOSYLKAEMPFEROL	Plant				--
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	PETAN-1-AL	Shoot				Jim Duke's personal files.
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.
13	BETA-PINENE	Essential Oil		2000.0	-0.6859771042347549	Jim Duke's personal files.
0	MADECASSIC-ACID	Plant				--
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
75	KAEMPFEROL	Leaf				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	HYDROCOTYLIN	Plant		16.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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
0	HEPT-TRANS-2-EN-1-AL	Shoot				Jim Duke's personal files.
53	LINALOOL	Shoot				Jim Duke's personal files.
0	BICYCLOELEMENE	Essential Oil		13000.0		Jim Duke's personal files.
18	OLEIC-ACID	Plant				--
0	CINEOLE	Essential Oil				--
23	ALPHA-TERPINEOL	Shoot				Jim Duke's personal files.
0	MADASIATIC-ACID	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
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
0	INDOCENTELLOSIDE	Plant		4000.0		Jim Duke's personal files.
19	ASIATICOSIDE	Shoot				Jim Duke's personal files.
0	AMINO BUTYRATE	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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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
19	ASIATICOSIDE	Plant				--
2	GERMACRENE-D	Shoot				Jim Duke's personal files.
0	THANKUNISIDE	Plant				--
60	LIMONENE	Shoot				Jim Duke's personal files.
5	BETA-ELEMENE	Essential Oil		30000.0	-0.48593246550536906	Jim Duke's personal files.
28	ALPHA-PINENE	Shoot				Jim Duke's personal files.
27	LINOLEIC-ACID	Plant				--
0	BRAHMIC-ACID	Plant		970.0		--
2	ALPHA-HUMULENE	Shoot				Jim Duke's personal files.
0	ALPHA-COPAENE	Essential Oil		9000.0	-0.36082830563118673	Jim Duke's personal files.
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.
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
1	ASIATIC-ACID	Plant				--
2	GERMACRENE-D	Essential Oil		160000.0	1.0	Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	THANKUNIC-ACID	Plant				--
9	CAMPHENE	Shoot				Jim Duke's personal files.
0	BETA-CHAMIGRENE	Shoot				Jim Duke's personal files.
0	N-DODECANE	Essential Oil				--
0	CENTOIC-ACID	Plant				--
28	ALPHA-PINENE	Essential Oil		2000.0	-0.5424708227492797	Jim Duke's personal files.
1	LIGNOCERIC-ACID	Plant				--
0	BICYCLOELEMENE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
9	DELTA-CADINENE	Shoot				Jim Duke's personal files.
0	ALPHA-CHAMIGRENE	Shoot				Jim Duke's personal files.
7	GLUCOSE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	OCT-TRANS-2-EN-1-AL	Shoot				Jim Duke's personal files.
35	GERANIOL	Shoot				Jim Duke's personal files.
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
0	M-XYLENE	Shoot				Jim Duke's personal files.
1	RAFFINOSE	Plant				--
0	BETA-CARYOPHYLLENE	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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	MYO-INOSITOL	Plant				--
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.
11	NEROLIDOL	Shoot				Jim Duke's personal files.
22	BETULINIC-ACID	Plant		1100.0	-0.49265454919484347	Jim Duke's personal files.
0	2-METHYL-BUTAN-2-OL	Shoot				Jim Duke's personal files.
8	INOSITOL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	WATER	Leaf		893000.0	0.4258710730214559	--
2	GERMACRENE-D	Plant				--
0	NON-3-EN-2-ONE	Shoot				Jim Duke's personal files.
112	ASCORBIC-ACID	Plant		138.0	-0.5612889938563121	--
0	FURAN-2-CARBOXALDEHYDE	Shoot				Jim Duke's personal files.
8	STEARIC-ACID	Plant				--
0	WIDDRENE	Shoot				Jim Duke's personal files.
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.
2	METHANOL	Plant				--
0	CENTELLOSE	Plant				--
10	NEROL	Shoot				Jim Duke's personal files.
0	BETA-CARYOPHYLLENE	Essential Oil		125000.0	0.1933351753509813	Jim Duke's personal files.
75	KAEMPFEROL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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
1	2,3-DIHYDROBENZOFURAN	Shoot				Jim Duke's personal files.
41	CAMPHOR	Essential Oil				--
0	GERMACRENE	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
22	ISOQUERCITRIN	Leaf				Jim Duke's personal files.
17	FARNESOL	Shoot				Jim Duke's personal files.
1	TOLUENE	Shoot				Jim Duke's personal files.
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.
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.
22	MYRCENE	Shoot				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	BETA-BISABOLENE	Shoot				Jim Duke's personal files.
0	ISOTHANKUNISIDE	Plant				--
47	BETA-SITOSTEROL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	1-METHYL-4-(1,2,2-TRIMETHYL-CYCLO-PENTYL)-BENZENE	Shoot				Jim Duke's personal files.
77	ZINC	Bark		3.4	-0.9069023286651865	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
11	GAMMA-TERPINENE	Shoot				Jim Duke's personal files.
0	EPIGLOBULOL	Shoot				Jim Duke's personal files.
12	STIGMASTEROL	Essential Oil		2000.0		Jim Duke's personal files.
0	MEDICASSIC-ACID	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	CENTELIC-ACID	Plant				--
22	MYRCENE	Essential Oil		6000.0	-0.3653970753458515	Jim Duke's personal files.
0	BETA-ACORADIENE	Shoot				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	ISOTHANKUNIC-ACID	Plant				--
0	BETA-FARNESENE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
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
11	GAMMA-TERPINENE	Essential Oil		4000.0	-0.767502970243684	Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	CENTELLA-ASIATICA-COMPOUND-BK	Plant				Jim Duke's personal files.
3	PYRIDINE	Shoot				Jim Duke's personal files.
0	MESO-INOSITOL	Plant		15.0		Jim Duke's personal files.
7	ASTRAGALIN	Leaf				Jim Duke's personal files.
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	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
5	BETA-ELEMENE	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	HEXAN-1-AL	Shoot				Jim Duke's personal files.
0	VELLARINE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	FIBER(DIETARY)	Leaf		302000.0	-0.8718975702234967	--
47	BETA-SITOSTEROL	Essential Oil		2000.0	1.0	Jim Duke's personal files.
0	7-GLUCOSYLKAEMPFEROL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	CARYOPHYLLENE-OXIDE	Shoot				Jim Duke's personal files.
0	POPULNIN	Leaf				Jim Duke's personal files.
13	PALMITIC-ACID	Plant				--
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	MADECASSOSIDE	Shoot				Jim Duke's personal files.
0	ASIATICOSIDE-B	Leaf				Jim Duke's personal files.
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	BETA-CARYOPHYLLENE	Plant				--
0	HEX-3-EN-2-ONE	Shoot				Jim Duke's personal files.
2	TRANS-BETA-FARNESENE	Plant				--
0	FIBER(CRUDE)	Leaf		187000.0	1.5553583414475418	--
5	BETA-SESQUIPHELLANDRENE	Shoot				Jim Duke's personal files.
0	3-GLUCOSYLQUERCETIN	Plant				--
2	CAMPESTEROL	Essential Oil		2000.0		Jim Duke's personal files.
4	PHELLANDRENE	Plant				Jim Duke's personal files.
0	P-CYMOL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	ELAIDIC-ACID	Plant				--
2	MADECASSOSIDE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	LINAMARASE	Leaf				Jim Duke's personal files.
0	ASIATICOSIDE-A	Leaf				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
24	CHROMIUM	Leaf	0.1	1.0	-0.5613457205769528	--
60	SELENIUM	Leaf	0.1	1.2	-0.29034536355768803	--
77	ZINC	Leaf	0.4	3.4	-0.5059022324796413	--
2	COBALT	Leaf	0.8	7.3	-0.2554961829884984	--
4	TIN	Leaf	1.3	12.0	-0.4331991239429111	--
15	RIBOFLAVIN	Leaf	1.4	13.0	-0.11692421020247182	--
31	THIAMIN	Leaf	1.5	14.0	1.1869303740705777	--
0	THIAMINE	Leaf	1.5	14.0	2.1449383339093373	--
4	SILICON	Leaf	1.5	14.0	-0.37155124751733193	--
14	MANGANESE	Leaf	3.0	27.7	-0.41383578503505414	--
6	IRON	Leaf	3.0	29.0	-0.8470707525252408	--
39	NIACIN	Leaf	12.0	112.0	0.17636268788895457	--
53	BETA-CAROTENE	Leaf	40.0	369.0	0.46903611401255635	--
112	ASCORBIC-ACID	Leaf	40.0	374.0	-0.40921766271262444	--
5	ALUMINUM	Leaf	220.0	2060.0	1.430229610546625	--
5	SAPONINS	Leaf	268.0	2500.0	-1.0907412926645894	--
4	PHOSPHORUS	Leaf	300.0	2800.0	-0.39951935749949974	--
0	EO	Leaf	321.0	6000.0	-0.4868602567711417	--
0	KILOCALORIES	Leaf	340.0	3180.0	0.2609973458508899	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
65	MAGNESIUM	Leaf	342.0	3200.0	-0.3574611579280929	--
14	POTASSIUM	Leaf	414.0	3870.0	-1.169036049980163	--
19	ASIATICOSIDE	Leaf	700.0	1200.0		Jim Duke's personal files.
1	SODIUM	Leaf	1113.0	10400.0	1.1998266498363401	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
28	CALCIUM	Leaf	1700.0	15890.0	-0.17404285585996676	--
0	EO	Plant	3000.0	6000.0	-0.2841392284469577	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	FAT	Leaf	5992.0	56000.0	-0.00920837567589425	--
24	PECTIN	Leaf	6420.0	60000.0	0.848030969096559	--
0	SUGARS	Leaf	9630.0	90000.0	0.3611228146781439	--
0	SAPONIN	Plant	11000.0	80000.0	1.6640036208230826	--
0	ASH	Leaf	16050.0	150000.0	0.5487949419882225	--
0	PROTEIN	Leaf	16050.0	150000.0	-0.6169641238666383	--
15	FIBER	Leaf	20000.0	187000.0	0.3149049121779396	--
0	CARBOHYDRATES	Leaf	70192.0	656000.0	0.35111060724486526	--