

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Theobroma cacao

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
176	QUERCETIN	Leaf				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
112	ASCORBIC-ACID	Seed		31.0	-0.3198458318942361	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
112	ASCORBIC-ACID	Fruit	30.0	70.0	-0.2801366159826427	J Cell Biochem VOL. 22=1995
102	CAFFEIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
87	RUTIN	Leaf				--
78	LUTEOLIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
77	CHLOROGENIC-ACID	Leaf				--
77	CHLOROGENIC-ACID	Seed				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
75	KAEMPFEROL	Leaf				Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.
62	CAFFEINE	Testa	130.0	723.0	1.364120501373702	--
62	CAFFEINE	Seed	500.0	12900.0	-0.4658272368460845	--
62	CAFFEINE	Petiole	51.0	252.0	1.3383130789607725	--
61	FERULIC-ACID	Seed				--
57	COUMARIN	Seed				Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.
53	BETA-CAROTENE	Plant				--
53	LINALOOL	Seed		5.0	-0.5895891599202989	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
47	BETA-SITOSTEROL	Sprout Seedling				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
44	QUERCITRIN	Leaf				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
43	PROTocatechuic-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
43	PYRIDOXINE	Seed		1.0	-1.1536599429026273	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
40	EPICATECHIN	Leaf				Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. L'ORSTROM, Paris. 569 pp.
39	NIACIN	Seed	17.0	50.0	0.21294979342958875	--
39	NIACIN	Fruit	19.0	45.0	-0.20985653043855088	J Cell Biochem VOL. 22=1995
38	(-)-EPICATECHIN	Leaf				--
36	THEOPHYLLINE	Testa	130.0	257.0	1.0617119603565899	--
36	THEOPHYLLINE	Seed	0.0	4739.0	1.7330040388042545	--
36	THEOPHYLLINE	Plant				--
36	THEOPHYLLINE	Petiole	58.0	188.0	0.1867718419094071	--
34	PROANTHOCYANIDINS	Plant				Gruenwald, J. et al. 1998. PDR for Herbal Medicine. 1st ed. Medical Economics Co., Montvale, NJ. 1244 pp. (abbreviated as PHR or Physicians Herbal Reference in my mind)
31	THIAMIN	Seed	1.0	3.0	-0.8551170555321612	--
31	THIAMIN	Fruit	1.8	4.2	-0.14499283258341247	J Cell Biochem VOL. 22=1995

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
30	POLYPHENOLS	Seed	78000.0	100000.0	1.0	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
30	ESCULETIN	Seed				Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.
30	ANTHOCYANINS	Seed		4000.0	1.0	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
28	CALCIUM	Seed	800.0	1100.0	-0.5594989895943375	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
28	CALCIUM	Fruit	1300.0	3095.0	-0.1756747356051228	J Cell Biochem VOL. 22=1995
27	LINOLEIC-ACID	Plant	10700.0	12230.0	-0.39147043061187325	--
27	LINOLEIC-ACID	Seed	7420.0	29115.0	-0.6683734051471023	--
26	SEROTONIN	Plant				--
26	SEROTONIN	Seed				--
25	P-COUMARIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
25	OPCS	Seed		80000.0		--
24	VANILLIC-ACID	Seed				--
24	PECTIN	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
23	CITRIC-ACID	Seed	4500.0	7500.0	0.007355725552878182	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
22	CATECHOL	Plant				Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.
21	THEOBROMINE	Petiole	174.0	223.0	1.2182825031280367	--
21	THEOBROMINE	Testa	936.0	13000.0	1.0376929371594854	--
21	THEOBROMINE	Seed	10000.0	35000.0	2.234049191141325	--
20	LECITHIN	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
20	DOPAMINE	Seed				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
18	OLEIC-ACID	Seed	122430.0	227100.0	0.8877951296368191	--
18	VITEXIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
16	ACETIC-ACID	Seed	1520.0	7100.0	1.3864579714312821	--
15	FIBER	Seed	59000.0	89000.0	-0.36147740264683753	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	TRIGONELLINE	Seed				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
15	FIBER	Fruit	43000.0	102380.0	-0.3708195428012696	J Cell Biochem VOL. 22=1995
15	RIBOFLAVIN	Seed	1.0	4.0	0.18234587940570884	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
15	RIBOFLAVIN	Fruit	1.6	3.8	-0.25899158592219057	J Cell Biochem VOL. 22=1995
14	SUCROSE	Plant				--
14	SUCROSE	Seed	18000.0	37000.0	-0.17153022515909322	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	ARGININE	Seed		800.0	-1.009489821300081	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
13	PALMITIC-ACID	Seed	89040.0	180500.0	3.024699622330506	--
13	P-HYDROXY-BENZOIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
13	FORMIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
12	GLYCINE	Seed		900.0	-1.4533713326030981	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
12	STIGMASTEROL	Plant				--
12	STIGMASTEROL	Seed				Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.
12	COPPER	Seed		24.0	0.8331720560940928	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
11	TYRAMINE	Plant				--
11	NICOTINIC-ACID	Plant				--
11	TYRAMINE	Seed				--
11	PANTOTHENIC-ACID	Seed	13.0	20.0	0.34109708334068634	--
9	OXALIC-ACID	Seed	1520.0	5000.0	0.3447985152060364	--
9	VALERIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
9	SINAPIC-ACID	Plant				--
8	FRUCTOSE	Seed		2000.0	-0.5987994606248948	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	STEARIC-ACID	Plant				--
8	LACTIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
8	GLUTAMIC-ACID	Seed		10200.0	-1.3295703563860357	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
8	GENTISIC-ACID	Leaf				--
8	STEARIC-ACID	Seed	111300.0	215450.0	4.109143355899089	--
8	FRUCTOSE	Plant				--
8	TYROSINE	Seed		5700.0	-0.4728461096051886	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
7	HISTIDINE	Seed		800.0	-1.4153953454644674	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
7	PHENYLALANINE	Seed		5600.0	-0.7093928366416996	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
7	GLUCOSE	Seed	1000.0	3000.0	-0.5077819441641488	--
7	CYANIDIN	Plant				--
7	SALICYLATES	Seed		0.0	-0.3401776874861938	--
6	EPIGALLOCATECHIN	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
6	PROPIONIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	IRON	Seed	36.0	37.0	-0.5287176209786577	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	TARTARIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	SYRINGIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
6	FURFURAL	Exocarp		90000.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
5	PHYLLOQUINONE	Seed		0.02	-1.1351915229662497	--
5	ERGOSTEROL	Seed				Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.
5	24-METHYLENE-CYCLOARTANOL	Sprout Seedling				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	STARCH	Seed	50000.0	90000.0	-0.891522967457591	--
5	STARCH	Hb		60000.0		--
4	LYSINE	Seed		800.0	-1.5304571248204542	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	RUTOSIDE	Leaf				--
4	PHOSPHORUS	Fruit	500.0	5000.0	0.5418734067690828	J Cell Biochem VOL. 22=1995
4	THREONINE	Seed		1400.0	-1.5071309379745554	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	PHENYLETHYLAMINE	Seed				--
4	PHOSPHORUS	Seed	3600.0	5571.0	0.05751506388486866	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	GLYCOLIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	BIOTIN	Sprout Seedling				--
4	TRYPTAMINE	Seed				--
4	ISOVITEXIN	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
4	ISOPROPYL-ACETATE	Plant				--
3	MANNOSE	Seed				ANON. 1948-1976. The Wealht of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	ISOBUTYL-ACETATE	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	SALSOLINOL	Seed				--
3	AMYL-BUTYRATE	Seed				ANON. 1948-1976. The Wealht of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	XYLOSE	Seed				ANON. 1948-1976. The Wealht of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	ALANINE	Seed		10400.0	0.051822040311835675	ANON. 1948-1976. The Wealht of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	VALINE	Seed		5700.0	-0.7773276247624422	ANON. 1948-1976. The Wealht of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	ISOLEUCINE	Seed		5600.0	-0.624169861411402	ANON. 1948-1976. The Wealht of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	LUTEOLIN-7-O-GLUCOSIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
2	NONANOIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	PHOSPHATIDYL-CHOLINE	Seed	92.0	1328.0	-1.0	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	LEUCINE	Plant		4500.0	-0.9511481830727361	--
2	NICOTINAMIDE	Seed		21.0	-1.0	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	PHENYLACETIC-ACID	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	DIACETYL	Plant				--
2	QUERCETIN-3-O-GALACTOSIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
2	CAMPESTEROL	Sprout Seedling				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	APIGENIN-7-O-GLUCOSIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
1	SERINE	Seed		8800.0	-0.3400469562928065	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	AMYLASE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	THEOSTEROL	Testa				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
1	CHRYSOERIOLO-7-O-GLUCOSIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
1	CHOLESTEROL	Plant				--
1	AMYL-ALCOHOL	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	CELLULOSE	Plant				--
1	BEHENIC-ACID	Plant				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
1	VERBASCOSIDE	Seed				--
1	GLYCERIN	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	RAFFINOSE	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	CATECHINS	Seed	30000.0	40000.0	1.0	--
1	CATALASE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	CHOLESTEROL	Oil	0.0	2800.0	1.0	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	N-NONACOSANE	Seed				Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. I'ORSTROM, Paris. 569 pp.
1	STACHYOSE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	VALERIANIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	N-BUTYLACETATE	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	(-)-SALSOLINOL	Seed	0.007	40.0		--
1	CELLULOSE	Seed		90000.0	-0.23884916161035874	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.