

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Humulus lupulus*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
30	(+)-CATECHIN	Fruit				--
38	(-)-EPICATECHIN	Fruit				--
3	2-TRIDECANONE	Essential Oil				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	ACETONE	Fruit				--
3	ACETONE	Inflorescence				--
3	ACETONE	Flower				--
2	ADHUMULONE	Strobilus				--
2	ADHUMULONE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
2	ADHUMULONE	Inflorescence				--
2	ADHUMULONE	Plant				--
2	ADLUPULONE	Strobilus				--
2	ADLUPULONE	Fruit				--
2	ADLUPULONE	Inflorescence				--
2	ADLUPULONE	Plant				--
2	ALLO-CYMENE	Essential Oil				--
3	ALPHA-CADINOL	Fruit		15.0		--
2	ALPHA-HUMULENE	Fruit				--
2	ALPHA-HUMULENE	Essential Oil		400000.0	3.136732670792344	--
28	ALPHA-PINENE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
28	ALPHA-PINENE	Essential Oil				--
3	ALPHA-SELINENE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
23	ALPHA-TERPINEOL	Essential Oil				--
32	ALPHA-TOCOPHEROL	Strobilus				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	ALUMINUM	Flower	0.9	4.7	-1.6412298738578974	--
5	ALUMINUM	Fruit		4.7	-0.22215407810898732	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
14	ARGININE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
112	ASCORBIC-ACID	Fruit		1782.0	-0.17368960442994769	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
112	ASCORBIC-ACID	Flower	332.0	1782.0	-0.2861764494395231	--
2	ASPARAGINE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
7	ASTRAGALIN	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
2	BETA-ALANINE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
53	BETA-CAROTENE	Fruit		2.4	-0.1461614723719775	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
53	BETA-CAROTENE	Flower	0.5	2.4	-0.5854376351911411	--
13	BETA-EUDES MOL	Fruit		60.0		--
2	BETA-MYRCENE	Essential Oil	420000.0	580000.0	1.706327614199298	--
13	BETA-PINENE	Essential Oil				--
13	BETA-PINENE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
13	BETA-PINENE	Plant				--
3	BETA-SELINENE	Fruit		150.0	1.0	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
47	BETA-SITOSTEROL	Plant				--
102	CAFFEIC-ACID	Plant				--
28	CALCIUM	Flower	1157.0	6220.0	0.12434337429806096	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	CALCIUM	Fruit		6222.0	0.545912951542125	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	CAMPESTEROL	Stem				--
8	CANNABIDIOL	Leaf				--
31	CARYOPHYLLENE	Plant				--
6	CARYOPHYLLENE-EPOXIDE	Fruit		24.0		--
8	CARYOPHYLLENE-OXIDE	Essential Oil				--
43	CATECHIN	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
1	CELLULOSE	Stem				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
77	CHLOROGENIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
20	CHOLINE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
24	CHROMIUM	Flower	0.1	0.7	-1.0719973021906593	--
24	CHROMIUM	Fruit		0.7	-0.4093125277624259	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
53	CITRAL	Essential Oil				--
53	CITRAL	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
2	COBALT	Flower	0.5	2.4	-0.41850902895210695	--
2	COBALT	Fruit		2.4	-0.24457299524657042	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	COHUMULONE	Inflorescence				--
2	COHUMULONE	Plant				--
2	COHUMULONE	Strobilus				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	COHUMULONE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
3	COLUPULONE	Fruit				--
3	COLUPULONE	Strobilus				--
3	COLUPULONE	Inflorescence				--
3	COLUPULONE	Plant				--
7	CYANIDIN	Plant				--
1	DECAN-1-AL	Essential Oil				--
9	DELPHINIDIN	Plant				--
9	DELTA-CADINENE	Fruit		60.0	-0.4584564235430147	--
1	DELTA-CADINOL	Fruit		36.0	1.0	--
2	DIETHYL-AMINE	Flower		3.1		--
2	DIETHYL-AMINE	Inflorescence		3.1		--
2	DIMETHYL-AMINE	Inflorescence		1.4		--
2	DIMETHYL-AMINE	Flower		1.4	-0.9999999999999997	--
1	DIMETHYLVINYLCARBINOL	Flower				--
7	DIPENTENE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
40	EPICATECHIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	ESTRADIOL	Fruit				--
8	ESTRONE	Fruit				--
76	EUGENOL	Essential Oil				--
2	FARNESENE	Essential Oil				--
17	FARNESOL	Fruit		17.0	-0.6852064014620585	--
17	FARNESOL	Essential Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
61	FERULIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	FIBER	Fruit		72000.0	-0.6574998263757718	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
12	FORMALDEHYDE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	FRIEDELIN	Stem				--
8	FRUCTOSE	Fruit	15000.0	20000.0	-0.617530686348938	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
22	GAMMA-AMINOBUTYRIC-ACID	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
20	GAMMA-LINOLENIC-ACID	Seed				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
8	GENTISIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
35	GERANIOL	Essential Oil				--
35	GERANIOL	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
5	GERANYL-ACETATE	Essential Oil				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	GERANYL-PROPIONATE	Essential Oil				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	GERMACRENE-D	Fruit		15.0	-1.0	--
7	GLUCOSE	Fruit	15000.0	20000.0	-0.6828399338718176	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
9	HEDERAGENIN	Stem				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	HEPTYLISOBUTYRATE	Essential Oil				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	HISTIDINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	HUMULENE	Fruit		1200.0	1.4104326443879445	--
2	HUMULENE	Flower				--
2	HUMULENE	Essential Oil				--
2	HUMULENE	Plant				--
16	HUMULONE	Strobilus		5000.0		--
16	HUMULONE	Plant				--
16	HUMULONE	Inflorescence				--
16	HUMULONE	Fruit				--
16	HUMULONE	Flower				--
6	IRON	Flower				--
6	IRON	Fruit				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	ISOHUMULONE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	ISOLEUCINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
22	ISOQUERCITRIN	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
5	ISOVALERIC-ACID	Essential Oil				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	ISOXANTHOTHUMOL	Resin, Exudate, Sap		42500.0		--
6	ISOXANTHOTHUMOL	Fruit		1838.0		--
75	KAEMPFEROL	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
2	KAEMPFEROL-3-RHAMNOSIDE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	LEUCINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	LEUCOCYANIDIN	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
1	LEUCOCYANIDIN	Flower				Chemical Constituents of Oriental Herbs (3 diff. books)
2	LEUCODELPHINIDIN	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
2	LEUCODELPHINIDIN	Flower				Chemical Constituents of Oriental Herbs (3 diff. books)
13	LIGNIN	Stem				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
60	LIMONENE	Essential Oil				--
60	LIMONENE	Fruit				--
53	LINALOOL	Essential Oil				--
53	LINALOOL	Fruit				--
4	LUPULIN	Fruit				--
9	LUPULONE	Plant				--
9	LUPULONE	Flower				--
9	LUPULONE	Strobilus		1300.0		--
9	LUPULONE	Fruit				--
9	LUPULONE	Inflorescence				--
4	LYSINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
65	MAGNESIUM	Flower	443.0	2380.0	-0.3123747135433822	--
65	MAGNESIUM	Fruit		2380.0	0.11588638233919304	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	MALTOSE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	MANGANESE	Flower	1.5	8.1	-0.36407539187837923	--
14	MANGANESE	Fruit		8.1	-0.3501271465981358	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
6	MASLINIC-ACID	Stem				--
1	METHYL-AMINE	Flower		3.7	-1.0	--
2	METHYL-NONANOATE	Essential Oil				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	METHYL-NONYL-KETONE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
22	MYRCENE	Inflorescence				--
22	MYRCENE	Plant				--
22	MYRCENE	Strobilus				--
22	MYRCENE	Fruit				--
22	MYRCENE	Essential Oil				--
34	MYRICETIN	Plant				--
2	NEO-CHLOROGENIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
10	NEROL	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
10	NEROL	Essential Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
11	NEROLIDOL	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
39	NIACIN	Fruit		435.0	5.003766647644194	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
39	NIACIN	Flower	81.0	435.0	3.352263480595522	--
64	OLEANOLIC-ACID	Stem				--
25	P-COUMARIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
16	P-CYMENE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
24	PECTIN	Fruit	120000.0	140000.0	1.0319193042672525	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
7	PHENYLALANINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	PHOSPHORUS	Fruit		4760.0	0.4689758575548939	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	PHOSPHORUS	Flower	885.0	4760.0	0.44165313354460856	--
10	PIPERIDINE	Flower		2.5		--
10	PIPERIDINE	Inflorescence		2.5		--
14	POTASSIUM	Fruit		23500.0	0.49399185392198836	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
14	POTASSIUM	Flower	4371.0	23500.0	0.43388681236779714	--
1	PROCYANIDIN-B-1	Fruit				--
1	PROCYANIDIN-B-2	Fruit				--
2	PROCYANIDIN-B-3	Fruit				--
4	PROCYANIDIN-B-4	Fruit				--
27	PROCYANIDINS	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	PYRROLIDINE	Flower		1.0		--
1	PYRROLIDINE	Inflorescence		1.0		--
176	QUERCETIN	Plant				--
2	QUERCETIN-3'-GLUCOSIDE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	QUERCETIN-3-O-RHAMNOSIDE	Fruit				--
44	QUERCITRIN	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
1	RAFFINOSE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	RIBOFLAVIN	Flower	2.0	10.1	0.9131195269275587	--
15	RIBOFLAVIN	Fruit		10.0	1.0688416055697534	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
87	RUTIN	Leaf		2000.0	-0.8803806294985641	--
87	RUTIN	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
60	SELENIUM	Flower	0.3	1.7	-0.5395561278850259	--
60	SELENIUM	Fruit		1.7	0.03537263271054239	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	SERINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	SILICON	Fruit		4.5	-0.5938225414098025	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	SILICON	Flower	0.8	4.5	-0.5633927701595145	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	SODIUM	Fruit		47.0	-0.17949382924161622	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	SODIUM	Flower	9.0	47.0	-0.5922029574106819	--
10	SQUALENE	Plant				--
1	STACHYOSE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
12	STIGMASTEROL	Stem				--
14	SUCROSE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
31	THIAMIN	Fruit		3.4	-0.24739706588262703	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	THREONINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	TIN	Flower	4.0	22.0	0.9878291611472616	--
4	TIN	Fruit		22.0	-0.2908840013040884	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	TRANS-BETA-FARNESENE	Tissue Culture				--
1	TRIMETHYLAMINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
29	TRYPTOPHAN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
8	TYROSINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
89	URSOLIC-ACID	Stem				--
3	VALINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	VIRIDIFLOROL	Fruit		16.0		--
4	XANTHOTHUMOL	Fruit		15.0		--
4	XANTHOTHUMOL	Resin, Exudate, Sap		78750.0		--
4	XANTHOTHUMOL	Strobilus		300.0		--
77	ZINC	Flower				--
77	ZINC	Fruit				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.