

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Humulus lupulus*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	BETA-MYRCENE	Essential Oil	420000.0	580000.0	1.706327614199298	--
2	ALPHA-HUMULENE	Essential Oil		400000.0	3.136732670792344	--
24	PECTIN	Fruit	120000.0	140000.0	1.0319193042672525	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
4	XANTHOTHUMOL	Resin, Exudate, Sap		78750.0		--
15	FIBER	Fruit		72000.0	-0.6574998263757718	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
6	ISOXANTHOTHUMOL	Resin, Exudate, Sap		42500.0		--
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	--
8	FRUCTOSE	Fruit	15000.0	20000.0	-0.617530686348938	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
7	GLUCOSE	Fruit	15000.0	20000.0	-0.6828399338718176	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
28	CALCIUM	Fruit		6222.0	0.545912951542125	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
28	CALCIUM	Flower	1157.0	6220.0	0.12434337429806096	--
16	HUMULONE	Strobilus		5000.0		--
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	--
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.
87	RUTIN	Leaf		2000.0	-0.8803806294985641	--
6	ISOXANTHOTHUMOL	Fruit		1838.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	--
9	LUPULONE	Strobilus		1300.0		--
2	HUMULENE	Fruit		1200.0	1.4104326443879445	--
39	NIACIN	Flower	81.0	435.0	3.352263480595522	--
39	NIACIN	Fruit		435.0	5.003766647644194	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	XANTHOMOL	Strobilus		300.0		--
3	BETA-SELINENE	Fruit		150.0	1.0	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
13	BETA-EUDESOL	Fruit		60.0		--
9	DELTA-CADINENE	Fruit		60.0	-0.4584564235430147	--
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	--
1	DELTA-CADINOL	Fruit		36.0	1.0	--
6	CARYOPHYLLENE-EPOXIDE	Fruit		24.0		--
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.
17	FARNESOL	Fruit		17.0	-0.6852064014620585	--
1	VIRIDIFLOROL	Fruit		16.0		--
4	XANTHOMOL	Fruit		15.0		--
3	ALPHA-CADINOL	Fruit		15.0		--
2	GERMACRENE-D	Fruit		15.0	-1.0	--
15	RIBOFLAVIN	Flower	2.0	10.1	0.9131195269275587	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	RIBOFLAVIN	Fruit		10.0	1.0688416055697534	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
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.
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.
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	--
1	METHYL-AMINE	Flower		3.7	-1.0	--
31	THIAMIN	Fruit		3.4	-0.24739706588262703	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	DIETHYL-AMINE	Flower		3.1		--
2	DIETHYL-AMINE	Inflorescence		3.1		--
10	PIPERIDINE	Flower		2.5		--
10	PIPERIDINE	Inflorescence		2.5		--
53	BETA-CAROTENE	Fruit		2.4	-0.1461614723719775	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	COBALT	Flower	0.5	2.4	-0.41850902895210695	--
53	BETA-CAROTENE	Flower	0.5	2.4	-0.5854376351911411	--
2	COBALT	Fruit		2.4	-0.24457299524657042	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
60	SELENIUM	Flower	0.3	1.7	-0.5395561278850259	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	SELENIUM	Fruit		1.7	0.03537263271054239	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	DIMETHYL-AMINE	Flower		1.4	-0.9999999999999997	--
2	DIMETHYL-AMINE	Inflorescence		1.4		--
1	PYRROLIDINE	Inflorescence		1.0		--
1	PYRROLIDINE	Flower		1.0		--
24	CHROMIUM	Fruit		0.7	-0.4093125277624259	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
24	CHROMIUM	Flower	0.1	0.7	-1.0719973021906593	--
2	ADHUMULONE	Inflorescence				--
38	(-)-EPICATECHIN	Fruit				--
13	LIGNIN	Stem				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
3	COLUPULONE	Inflorescence				--
23	ALPHA-TERPINEOL	Essential Oil				--
7	PHENYLALANINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	BETA-PINENE	Plant				--
77	ZINC	Fruit				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
9	LUPULONE	Plant				--
7	HISTIDINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	SUCROSE	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
3	METHYL-NONYL-KETONE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
9	LUPULONE	Inflorescence				--
2	ADHUMULONE	Plant				--
1	RAFFINOSE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
53	LINALOOL	Essential Oil				--
2	LEUCODELPHINIDIN	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
3	COLUPULONE	Strobilus				--
3	ALPHA-SELINENE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
13	BETA-PINENE	Essential Oil				--
20	CHOLINE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
16	HUMULONE	Inflorescence				--
1	HEPTYLISOBUTYRATE	Essential Oil				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
12	STIGMASTEROL	Stem				--
2	FRIEDELIN	Stem				--
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.
13	BETA-PINENE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
3	ACETONE	Fruit				--
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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
44	QUERCITRIN	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
60	LIMONENE	Essential Oil				--
2	LEUCODELPHINIDIN	Flower				Chemical Constituents of Oriental Herbs (3 diff. books)
3	COLUPULONE	Plant				--
28	ALPHA-PINENE	Fruit				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.
16	HUMULONE	Fruit				--
9	hederagenin	Stem				--
16	P-CYMENE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
1	STACHYOSE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
12	FORMALDEHYDE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
16	HUMULONE	Plant				--
3	ACETONE	Inflorescence				--
75	KAEMPFEROL	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
1	QUERCETIN-3-O-RHAMNOSIDE	Fruit				--
31	CARYOPHYLLENE	Plant				--
1	LEUCOCYANIDIN	Leaf				Chemical Constituents of Oriental Herbs (3 diff. books)
2	COHUMULONE	Inflorescence				--
2	ALPHA-HUMULENE	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	CELLULOSE	Stem				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
3	VALINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
77	ZINC	Flower				--
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.
32	ALPHA-TOCOPHEROL	Strobilus				--
10	SQUALENE	Plant				--
6	IRON	Flower				--
6	MASLINIC-ACID	Stem				--
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.
9	DELPHINIDIN	Plant				--
1	LEUCOCYANIDIN	Flower				Chemical Constituents of Oriental Herbs (3 diff. books)
2	COHUMULONE	Plant				--
89	URSOLIC-ACID	Stem				--
64	OLEANOLIC-ACID	Stem				--
28	ALPHA-PINENE	Essential Oil				--
8	CARYOPHYLLENE-OXIDE	Essential Oil				--
61	FERULIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	HUMULENE	Flower				--
2	BETA-ALANINE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
53	LINALOOL	Fruit				--
22	ISOQUERCITRIN	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
176	QUERCETIN	Plant				--
1	DECAN-1-AL	Essential Oil				--
2	LEUCINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	COHUMULONE	Strobilus				--
2	ALLO-CYMENE	Essential Oil				--
8	TYROSINE	Fruit				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.
10	NEROL	Essential Oil				--
2	MALTOSE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	HUMULENE	Essential Oil				--
7	ASTRAGALIN	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
2	TRANS-BETA-FARNESENE	Tissue Culture				--
3	ISOLEUCINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	CYANIDIN	Plant				--
2	ADLUPULONE	Strobilus				--
2	ADLUPULONE	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
29	TRYPTOPHAN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
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.
11	NEROLIDOL	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
22	MYRCENE	Plant				--
8	CANNABIDIOL	Leaf				--
1	SERINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
76	EUGENOL	Essential Oil				--
2	HUMULENE	Plant				--
2	ASPARAGINE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
4	PROCYANIDIN-B-4	Fruit				--
2	ISOHUMULONE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
27	PROCYANIDINS	Fruit				--
2	PROCYANIDIN-B-3	Fruit				--
3	COLUPULONE	Fruit				--
2	ADHUMULONE	Strobilus				--
2	ADHUMULONE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
1	TRIMETHYLAMINE	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
35	GERANIOL	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
10	NEROL	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
22	MYRCENE	Strobilus				--
2	CAMPESTEROL	Stem				--
8	ESTRONE	Fruit				--
4	LYSINE	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				--
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.
6	IRON	Fruit				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	PROCYANIDIN-B-2	Fruit				--
2	COHUMULONE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
30	(+)-CATECHIN	Fruit				--
3	ACETONE	Flower				--
60	LIMONENE	Fruit				--
8	GENTISIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
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.
22	MYRCENE	Essential Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	ADLUPULONE	Inflorescence				--
3	ESTRADIOL	Fruit				--
9	LUPULONE	Flower				--
17	FARNESOL	Essential Oil				--
14	ARGININE	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
16	HUMULONE	Flower				--
1	PROCYANIDIN-B-1	Fruit				--
53	CITRAL	Essential Oil				--
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.
40	EPICATECHIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	DIMETHYLVINYLCARBINOL	Flower				--
4	THREONINE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
20	GAMMA-LINOLENIC-ACID	Seed				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
34	MYRICETIN	Plant				--
102	CAFFEIC-ACID	Plant				--
2	ADLUPULONE	Plant				--
87	RUTIN	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
7	DIPENTENE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	LUPULIN	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	FARNESENE	Essential Oil				--
53	CITRAL	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
43	CATECHIN	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
22	MYRCENE	Inflorescence				--
22	GAMMA-AMINOBUTYRIC-ACID	Fruit				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
22	MYRCENE	Fruit				--
9	LUPULONE	Fruit				--
47	BETA-SITOSTEROL	Plant				--