

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Illicium verum*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	1,4-CINEOLE	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
67	1,8-CINEOLE	Fruit	1.0	3500.0	-0.22091954195410496	--
0	1-METHYL-4-ISOPROPENYL-BENZENE	Fruit		1.0		--
0	4-(BETA-D-GLUCOPYRANOSYLOXY)-BENZOIC-ACID	Fruit				--
0	ALLO-AROMADENDRENE	Fruit		1050.0	-0.39901197412390677	--
0	ALPHA-COPAENE	Fruit	25.0	1100.0	0.8069312947413789	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ALPHA-CUBEBENE	Fruit		200.0	-0.6078151010929145	--
2	ALPHA-HUMULENE	Fruit	1.0	900.0	-0.1468774248768592	--
0	ALPHA-MUUROLENE	Fruit		1.0	-0.7365604334696394	--
11	ALPHA-PHELLANDRENE	Fruit		435.0	-0.35734391683141264	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
28	ALPHA-PINENE	Fruit	50.0	1310.0	-0.37676809473778544	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ALPHA-SANTALENE	Fruit		1.0		--
13	ALPHA-TERPINENE	Fruit		70.0	-0.06869957682378398	--
23	ALPHA-TERPINEOL	Fruit	85.0	200.0	-0.24394016685691888	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
36	ANETHOLE	Plant				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
8	ANISATIN	Seed				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
6	BETA-BISABOLENE	Fruit	1.0	75.0	-0.8681433142470081	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	BETA-COPAENE	Fruit		500.0		--
5	BETA-ELEMENE	Fruit	1.0	650.0	0.32349269549885196	--
3	BETA-PHELLANDRENE	Fruit	220.0	835.0	-0.32838402926570937	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
13	BETA-PINENE	Fruit		1.0	-0.2978113268433539	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
13	BETA-PINENE	Plant		1.0	-0.4344068758722416	--
0	BETA-SELININE	Fruit		1.0		--
47	BETA-SITOSTEROL	Fruit		930.0	0.427668247328855	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
0	CALAMENE	Fruit		650.0		--
2	CAMPESTEROL	Fruit		130.0	0.4446111353105388	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
9	CAMPHENE	Fruit		1.0	-0.3513902756128656	--
19	CARVONE	Fruit		1.0	-0.5005078391494944	--
31	CARYOPHYLLENE	Fruit	85.0	3600.0	-0.28877451025385453	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

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1	CATECHINS	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	CHAVICOL-METHYL-ETHER	Fruit				--
3	CINNAMIC-ALCOHOL	Fruit	1.0	50.0		--
0	CIS-ALPHA-BERGAMOTENE	Fruit	1.0	50.0		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
1	CIS-ANETHOLE	Fruit	1.0	140.0	-1.1111677990074325	--
0	CIS-BETA-FARNESENE	Fruit	1.0	40.0		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	CIS-BETA-OCIMENE	Fruit		100.0		--
0	D-FENCHONE	Fruit				--
19	D-LIMONENE	Fruit				--
0	D-PINENE	Fruit				--
8	DELTA-3-CARENE	Fruit	25.0	465.0	0.16468350849180752	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
9	DELTA-CADINENE	Fruit		1.0	-0.46751702950182594	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	DL-LIMONENE	Fruit				--
0	EO	Seed		25000.0	-0.23445244448594577	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	EO	Leaf		10000.0	-0.13502102138741875	--
0	EO	Fruit	50000.0	100000.0	1.1237392472820933	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	ESTRAGOLE	Fruit				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.
6	FENCHONE	Fruit		1.0	-1.0	--
0	FENICULIN	Fruit	275.0	2550.0		--
0	FLAVONOL-GLYCOSIDES	Fruit		300.0	1.0	--
0	FOENICULIN	Fruit	275.0	2550.0	1.0	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
11	GAMMA-TERPINENE	Fruit	1.0	75.0	-0.6375226687664852	--
32	HYDROQUINONE	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	KAEMPFEROL-3-O-GALACTOSIDE	Plant				--
0	KAEMPFEROL-3-O-GLUCOSIDE	Plant				--
0	KAEMPFEROL-3-O-RUTINOSIDE	Plant				--
1	KAEMPFEROL-3-O-GALACTOSIDE	Plant				--
4	KAEMPFEROL-3-O-GLUCOSIDE	Plant				--
0	KAEMPFEROL-3-O-RUTINOSIDE	Fruit				--
2	L-LIMONENE	Fruit				--
60	LIMONENE	Fruit	100.0	5220.0	-0.001567908370633259	--
0	LINALOL	Fruit	250.0	1400.0	-0.39934707646416534	--
53	LINALOOL	Fruit	250.0	1400.0	-0.19419566732610075	--
0	LONGIFOLENE	Fruit		1.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	METHYL-ANISATE	Fruit	1.0	300.0		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
6	METHYL-CHAVICOL	Fruit	280.0	6500.0	1.6395394202053375	--
22	MYRCENE	Fruit	40.0	200.0	-0.35335111300595534	--
11	NEROLIDOL	Fruit		50.0	-0.7067205673245923	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
11	P-ANISALDEHYDE	Fruit	190.0	850.0		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
16	P-CYMENE	Fruit	1.0	100.0	-0.5665290281676088	--
0	P-CYMENE-8-OL	Fruit		200.0	1.0	--
0	P-METHOXY-PHENYL-PROPAN-2-ONE	Fruit		50.0		--
0	P-METHOXY-PROPAN-2-ONE	Plant	75.0	100.0		--
2	P-METHOXYCINNAMALDEHYDE	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
2	PHYTOSTEROLS	Fruit		1140.0	0.250731831904602	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
34	PROANTHOCYANIDINS	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	QUERCETIN-3-0-GALACTOSIDE	Plant				--
0	QUERCETIN-3-0-GLYCOSIDE	Plant				--
0	QUERCETIN-3-0-RUTINOSIDE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	QUERCETIN-3-O-XYLOSIDE	Plant				--
2	QUERCETIN-3-O-GALACTOSIDE	Plant				--
0	QUERCETIN-3-O-GLYCOSIDE	Plant				--
1	QUERCETIN-3-O-RHAMNOSIDE	Plant				--
0	QUERCETIN-3-O-RUTINOSIDE	Plant				--
0	QUERCETIN-3-O-XYLOSIDE	Plant				--
87	RUTIN	Fruit				--
5	SABINENE	Fruit	1.0	20.0	-0.5293209898523012	--
29	SAFROLE	Plant				--
29	SAFROLE	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
12	STIGMASTEROL	Fruit		80.0	-0.06288386874087785	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
35	TANNIN	Fruit				--
23	TERPINEN-4-OL	Fruit	1.0	100.0	-0.3432015870721531	--
9	TERPINOLENE	Fruit	5.0	435.0	2.1751130365868003	--
0	TRANS-ALPHA-BERGAMOTENE	Plant	1.0	160.0	1.0	--
0	TRANS-ALPHA-BERGAMOTENE	Fruit	1.0	160.0		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
8	TRANS-ANETHOLE	Fruit	39000.0	90000.0	1.1964785706689915	--
2	TRANS-BETA-FARNESENE	Fruit		1.0		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

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0	TRANS-METHYL- ISOEUGENOL	Fruit	0.0	60.0		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.