

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Cannabis sativa

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
27	LINOLEIC-ACID	Seed	207000.0	250600.0	1.229332063524583	--
15	FIBER	Seed	165000.0	206450.0	0.565927856848296	--
18	OLEIC-ACID	Seed	44400.0	53700.0	-0.5376546816338774	--
8	CANNABIDIOL	Fruit		20870.0		--
4	PHOSPHORUS	Seed	9700.0	11227.0	1.5521640659289466	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
28	CALCIUM	Seed	1200.0	1389.0	-0.5064218426303934	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
3	CANNABINOL	Fruit		1275.0		--
6	IRON	Seed	120.0	139.0	-0.05479437162869729	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	CANNABIGEROLIC-ACID	Leaf		40.0		--
39	NIACIN	Seed	21.0	24.0	-0.5653371145111872	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
3	CANNABINOL	Seed		8.0		--
31	THIAMIN	Seed	3.2	3.7	-0.6881088248838246	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	RIBOFLAVIN	Seed	1.7	2.0	-0.5841625019907875	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
53	BETA-CAROTENE	Seed	0.0	0.06	-0.4255580240943812	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
112	ASCORBIC-ACID	Seed		0.0	-0.33845664486186666	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
8	TRANS-ANETHOLE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
16	TETRAHYDROCANNABINOL	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
3	CANNABINOL	Leaf				--
9	CAMPHENE	Leaf Essent. Oil				--
7	HISTIDINE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
8	CANNABIDIOL	Seed				--
3	CANNABIDIOLIC-ACID	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
1	CANNABICHROMENE	Sprout Seedling				--
6	BETA-BISABOLENE	Leaf Essent. Oil				--
1	GLUCOSAMINE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
1	ISOBUTYRALDEHYDE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
1	CANNABICHROMENE	Plant				--
3	CANNABINOL	Inflorescence				--
9	CAMPHENE	Flower Essent. Oil				--
3	CANNABIGEROL	Leaf				--
8	CANNABIDIOL	Leaf				--
3	CANNABIDIOLIC-ACID	Shoot				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	(-)-BORNEOL	Plant				--
6	BETA-BISABOLENE	Flower Essent. Oil				--
2	DELTA-9-TETRAHYDROCANNABINOL	Inflorescence				--
9	DELTA-CADINENE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
29	TRYPTOPHAN	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
9	CAMPHENE	Resin, Exudate, Sap				--
3	CANNABIGEROL	Inflorescence				--
8	CANNABIDIOL	Shoot				--
3	CANNABIDIOLIC-ACID	Inflorescence				--
20	ALPHA-BISABOLOL	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
9	BENZYL-ACETATE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
2	DELTA-9-TETRAHYDROCANNABINOL	Trichome				--
9	DELTA-CADINENE	Essential Oil				--
2	CAMPESTEROL	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	CANNABIGEROL	Plant				--
1	CANNABICHROMENE	Seed				--
20	ALPHA-BISABOLOL	Essential Oil				--
9	BENZYL-ACETATE	Essential Oil				--
2	DELTA-9-TETRAHYDROCANNABINOL	Pollen Or Spore				--
3	CANNABIDIOLIC-ACID	Pollen Or Spore				--
1	CIS-ANETHOLE	Essential Oil				--
3	CANNABINOL	Plant				--
2	CAMPESTEROL	Seed				--
3	CANNABIGEROL	Root				--
1	CANNABICHROMENE	Leaf				--
20	ALPHA-BISABOLOL	Flower Essent. Oil				--
1	BEHENIC-ACID	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
2	DELTA-9-TETRAHYDROCANNABINOL	Shoot				--
3	CANNABIDIOLIC-ACID	Leaf				--
1	CIS-ANETHOLE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
3	CANNABINOL	Sprout Seedling				--
3	CANNABIGEROL	Shoot				--
1	CANNABICHROMENE	Resin Essent. Oil				--
2	CAMPESTEROL	Root				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	PHENYLALANINE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
8	AZELAIC-ACID	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
2	DELTA-9-TETRAHYDROCANNABINOL	Plant				--
8	CANNABIDIOL	Root				--
41	CAMPHOR	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
4	ORIENTIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
3	CANNABINOL	Bark				--
3	CANNABIGEROL	Sprout Seedling				--
1	CANNABICHROMENE	Shoot				--
2	CADAVERINE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
3	ALANINE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ASPARTIC-ACID	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
3	CANNABINOL	Bud				--
8	CANNABIDIOL	Leaf Essent. Oil				--
41	CAMPHOR	Essential Oil				--
3	CANNABINOL	Shoot				--
3	CANNABIGEROL	Resin, Exudate, Sap				--
1	CANNABICHROMENE	Resin, Exudate, Sap				--
35	BORNEOL	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
3	ACETONE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
14	ARGININE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
3	CANNABINOL	Flower Essent. Oil				--
8	CANNABIDIOL	Bud				--
8	CANNABIDIOL	Resin, Exudate, Sap				--
41	CAMPHOR	Leaf Essent. Oil				--
3	CANNABINOL	Resin, Exudate, Sap				--
3	CANNABIDIOLIC-ACID	Root				--
1	CANNABICHROMENE	Bud				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
35	BORNEOL	Essential Oil				--
6	ACETALDEHYDE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
1	ARABITOL	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
3	CANNABINOL	Root				--
8	CANNABIDIOL	Inflorescence				--
8	CANNABIDIOL	Plant				--
9	CAMPHENE	Plant				--
2	CANNABIGEROLIC-ACID	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.
3	CANNABIDIOLIC-ACID	Resin, Exudate, Sap				--
1	CANNABICHROMENE	Inflorescence				--
35	BORNEOL	Resin, Exudate, Sap				--
8	TRANS-ANETHOLE	Essential Oil				--
15	TRIGONELLINE	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
3	CANNABINOL	Leaf Essent. Oil				--
8	CANNABIDIOL	Sprout Seedling				--
9	CAMPHENE	Essential Oil				--
2	CANNABIGEROLIC-ACID	Inflorescence				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	CANNABIDIOLIC-ACID	Bark				--
1	CANNABICHROMENE	Root				--
6	BETA-BISABOLENE	Plant				Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of Cannabis sativa L. XVII. A Review of the Natural Constituents. J Natural Products, 432: 169-234.