

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Cannabis sativa

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
29	TRYPTOPHAN	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
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.
8	TRANS-ANETHOLE	Essential Oil				--
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.
31	THIAMIN	Seed	3.2	3.7	-0.6881088248838246	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
16	TETRAHYDROCANNABINOL	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
15	RIBOFLAVIN	Seed	1.7	2.0	-0.5841625019907875	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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.
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.
4	ORIENTIN	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
18	OLEIC-ACID	Seed	44400.0	53700.0	-0.5376546816338774	--
39	NIACIN	Seed	21.0	24.0	-0.5653371145111872	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
27	LINOLEIC-ACID	Seed	207000.0	250600.0	1.229332063524583	--
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.
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.
7	HISTIDINE	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
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.
15	FIBER	Seed	165000.0	206450.0	0.565927856848296	--
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.
9	DELTA-CADINENE	Essential Oil				--
2	DELTA-9-TETRAHYDROCANNABINOL	Inflorescence				--
2	DELTA-9-TETRAHYDROCANNABINOL	Trichome				--
2	DELTA-9-TETRAHYDROCANNABINOL	Pollen Or Spore				--
2	DELTA-9-TETRAHYDROCANNABINOL	Shoot				--
2	DELTA-9-TETRAHYDROCANNABINOL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	CIS-ANETHOLE	Essential Oil				--
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	Root				--
3	CANNABINOL	Leaf Essent. Oil				--
3	CANNABINOL	Leaf				--
3	CANNABINOL	Fruit		1275.0		--
3	CANNABINOL	Inflorescence				--
3	CANNABINOL	Seed		8.0		--
3	CANNABINOL	Plant				--
3	CANNABINOL	Sprout Seedling				--
3	CANNABINOL	Bark				--
3	CANNABINOL	Shoot				--
3	CANNABINOL	Resin, Exudate, Sap				--
3	CANNABINOL	Bud				--
3	CANNABINOL	Flower Essent. Oil				--
2	CANNABIGEROLIC-ACID	Leaf		40.0		--
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.
2	CANNABIGEROLIC-ACID	Inflorescence				--
3	CANNABIGEROL	Leaf				--
3	CANNABIGEROL	Inflorescence				--
3	CANNABIGEROL	Plant				--
3	CANNABIGEROL	Root				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	CANNABIGEROL	Shoot				--
3	CANNABIGEROL	Sprout Seedling				--
3	CANNABIGEROL	Resin, Exudate, Sap				--
3	CANNABIDIOLIC-ACID	Bark				--
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.
3	CANNABIDIOLIC-ACID	Shoot				--
3	CANNABIDIOLIC-ACID	Inflorescence				--
3	CANNABIDIOLIC-ACID	Pollen Or Spore				--
3	CANNABIDIOLIC-ACID	Leaf				--
3	CANNABIDIOLIC-ACID	Root				--
3	CANNABIDIOLIC-ACID	Resin, Exudate, Sap				--
8	CANNABIDIOL	Resin, Exudate, Sap				--
8	CANNABIDIOL	Plant				--
8	CANNABIDIOL	Fruit		20870.0		--
8	CANNABIDIOL	Seed				--
8	CANNABIDIOL	Leaf				--
8	CANNABIDIOL	Shoot				--
8	CANNABIDIOL	Root				--
8	CANNABIDIOL	Leaf Essent. Oil				--
8	CANNABIDIOL	Bud				--
8	CANNABIDIOL	Inflorescence				--
8	CANNABIDIOL	Sprout Seedling				--
1	CANNABICHROMENE	Bud				--
1	CANNABICHROMENE	Inflorescence				--
1	CANNABICHROMENE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	CANNABICHROMENE	Root				--
1	CANNABICHROMENE	Sprout Seedling				--
1	CANNABICHROMENE	Seed				--
1	CANNABICHROMENE	Leaf				--
1	CANNABICHROMENE	Resin Essent. Oil				--
1	CANNABICHROMENE	Shoot				--
1	CANNABICHROMENE	Resin, Exudate, Sap				--
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.
41	CAMPHOR	Essential Oil				--
41	CAMPHOR	Leaf Essent. Oil				--
9	CAMPHENE	Essential Oil				--
9	CAMPHENE	Leaf Essent. Oil				--
9	CAMPHENE	Flower Essent. Oil				--
9	CAMPHENE	Resin, Exudate, Sap				--
9	CAMPHENE	Plant				--
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.
2	CAMPESTEROL	Seed				--
2	CAMPESTEROL	Root				--
28	CALCIUM	Seed	1200.0	1389.0	-0.5064218426303934	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
35	BORNEOL	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.
35	BORNEOL	Essential Oil				--
53	BETA-CAROTENE	Seed	0.0	0.06	-0.4255580240943812	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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.
6	BETA-BISABOLENE	Leaf Essent. Oil				--
6	BETA-BISABOLENE	Flower Essent. Oil				--
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.
9	BENZYL-ACETATE	Essential 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.

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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.
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.
112	ASCORBIC-ACID	Seed		0.0	-0.33845664486186666	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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.
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.
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.
20	ALPHA-BISABOLOL	Essential Oil				--
20	ALPHA-BISABOLOL	Flower Essent. Oil				--
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	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.
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.
3	(-)-BORNEOL	Plant				--