

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Salvia officinalis*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
112	ASCORBIC-ACID	Leaf	55.0	350.0	-0.4114445568899699	--
102	CAFFEIC-ACID	Shoot				--
102	CAFFEIC-ACID	Inflorescence				--
101	APIGENIN	Shoot				--
101	APIGENIN	Plant				Stitt, Paul. Why George should eat broccoli.
89	URSOLIC-ACID	Stem		200.0	-0.8584003823146588	--
89	URSOLIC-ACID	Leaf	1255.0	1300.0	-0.38650833417091646	--
89	URSOLIC-ACID	Root				--
78	LUTEOLIN	Shoot				--
78	LUTEOLIN	Leaf				--
77	CHLOROGENIC-ACID	Inflorescence				--
77	CHLOROGENIC-ACID	Shoot				--
77	ZINC	Leaf	1.0	5.9	-0.4905596892021207	--
71	THYMOL	Essential Oil				--
71	THYMOL	Leaf				--
67	1,8-CINEOLE	Plant	390.0	6288.0	1.2033227605211898	--
65	MAGNESIUM	Leaf	444.0	2830.0	-0.5003307709599559	--
64	OLEANOLIC-ACID	Stem		400.0	1.0	--
64	OLEANOLIC-ACID	Leaf	140.0	786.0	-0.36135857674665767	--
63	MENTHOL	Plant				--
63	MENTHOL	Leaf				--
62	GALLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
61	FERULIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
60	LIMONENE	Et		14000.0	-1.0	--
60	LIMONENE	Essential Oil	6600.0	85000.0	-0.2478161403169539	--
60	LIMONENE	Leaf Essent. Oil	10000.0	36400.0	-0.517322999711508	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	LIMONENE	Plant	39.0	2380.0	0.9769131249982739	--
60	SELENIUM	Leaf				--
57	ROSMARINIC-ACID	Shoot	2000.0	5800.0	-0.5832582116490932	--
57	ROSMARINIC-ACID	Plant	30000.0	50600.0	1.3515537858959146	--
57	ROSMARINIC-ACID	Leaf				--
57	ROSMARINIC-ACID	Inflorescence	30000.0	42000.0	0.25850024578765574	--
57	ROSMARINIC-ACID	Tissue Culture				--
53	CITRAL	Plant				Stitt, Paul. Why George should eat broccoli.
53	LINALOOL	Essential Oil	1700.0	5000.0	-0.560725569158283	--
53	BETA-CAROTENE	Leaf	6.0	39.0	-0.9680962342519674	--
53	LINALOOL	Plant	0.0	3500.0	-0.1908197582561713	--
53	LINALOOL	Et		11000.0		--
53	LINALOOL	Leaf Essent. Oil	4000.0	46600.0	-0.40077393425160296	--
51	ELLAGIC-ACID	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
47	BETA-SITOSTEROL	Leaf	5.0	2449.0	0.24430946587626218	--
47	BETA-SITOSTEROL	Sprout Seedling				--
47	BETA-SITOSTEROL	Root				--
47	BETA-SITOSTEROL	Fruit Essent. Oil				--
47	BETA-SITOSTEROL	Stem		1214.0	1.0861956164972184	--
43	CATECHIN	Plant				--
41	CAMPHOR	Essential Oil	76000.0	305000.0	0.54343127227621	--
41	CAMPHOR	Leaf Essent. Oil	44000.0	458000.0	2.005169580755753	--
41	CAMPHOR	Pericarp Essent. Oil		229000.0		--
41	CAMPHOR	Leaf	0.0	9324.0	-0.03988163889064865	--
39	NIACIN	Leaf	10.0	62.0	-0.4318167758906651	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
35	TANNIN	Plant	20000.0	80000.0	-0.053082229266390064	--
35	BORNEOL	Et		79000.0		--
35	BORNEOL	Essential Oil	19700.0	156000.0	0.627691236095563	--
35	BORNEOL	Leaf Essent. Oil	16000.0	250000.0	2.73359024149356	--
35	BORNEOL	Shoot		7000.0	6.370019299829522	--
35	GERANIOL	Plant				Stitt, Paul. Why George should eat broccoli.
34	SALICYLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
31	CARYOPHYLLENE	Leaf	1.0	1430.0	0.1300669724943753	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
31	CARYOPHYLLENE	Essential Oil		33000.0	-0.14865660979366116	--
31	THIAMIN	Leaf	7.0	8.0	-0.06349209547044472	Father Nature's Farmacy: The aggregate of all these three-letter citations.
28	CALCIUM	Leaf	1696.0	10800.0	-0.5218305708813075	--
28	ALPHA-PINENE	Plant	7.0	1540.0	0.6083638735756228	--
28	ALPHA-PINENE	Et		35000.0	1.0	--
28	ALPHA-PINENE	Leaf Essent. Oil	35000.0	55000.0	-0.4505855480163243	--
28	ALPHA-PINENE	Essential Oil	11700.0	40100.0	-0.2072109908720455	--
27	LINOLEIC-ACID	Seed		73000.0	-0.29236236831545726	--
27	LINOLEIC-ACID	Fruit Essent. Oil				--
25	P-COUMARIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
24	VANILLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
24	CHROMIUM	Leaf	0.1	0.3	-0.621193465203015	--
24	PECTIN	Shoot				--
23	TERPINEN-4-OL	Leaf	10.0	1120.0	0.29918716656064637	--
23	ALPHA-TERPINEOL	Leaf	5.0	910.0	1.0071602347564552	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
23	ALPHA-TERPINEOL	Leaf Essent. Oil		1000.0	-0.8444420280137835	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
23	TERPINEN-4-OL	Leaf Essent. Oil	2000.0	3000.0	-0.523716551964413	--
23	ALPHA-TERPINEOL	Essential Oil		3700.0	-0.6091856576306849	--
23	TERPINEN-4-OL	Essential Oil		4500.0	-0.5734207195469667	--
22	MYRCENE	Et		8000.0	-1.0	--
22	MYRCENE	Essential Oil	3700.0	10400.0	-0.3077036496607786	--
22	MYRCENE	Leaf Essent. Oil	9000.0	15700.0	-0.3056695322092534	--
22	MYRCENE	Plant	0.0	336.0	-0.10695418064014987	--
20	CARNOSOL	Leaf		1660.0	-0.5296891454855135	--
20	CARNOSOL	Resin, Exudate, Sap		36000.0		--
20	CARNOSOL	Shoot		34.0	-0.9354703756918734	--
20	CARNOSOL	Plant				--
18	TERPINEOL	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
18	OLEIC-ACID	Seed		35500.0	-0.6872693677072723	--
18	TERPINEOL	Essential Oil				--
18	OLEIC-ACID	Fruit Essent. Oil				--
17	THUJONE	Plant	2500.0	13000.0	1.9856348958487122	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
17	THUJONE	Leaf	1453.0	12636.0	1.4138087279087124	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
17	FARNESOL	Plant				--
17	THUJONE	Et		457000.0		--
17	THUJONE	Essential Oil	451300.0	531000.0	1.0	--
16	P-CYMENE	Et		11000.0	-1.0	--
16	P-CYMENE	Leaf Essent. Oil	7000.0	17700.0	-0.5156620336360256	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
16	P-CYMENE	Shoot	15.0	495.0	-0.10900236438234769	--
16	P-CYMENE	Essential Oil	3100.0	5400.0	-0.5888102139189108	--
15	FIBER	Leaf		87000.0	-0.9217097607872751	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
15	MALIC-ACID	Plant				--
15	RIBOFLAVIN	Leaf	0.6	3.6	-0.16098657500422545	--
14	MANGANESE	Leaf	0.5	3.0	-0.4548985090553243	--
14	POTASSIUM	Plant	10700.0	11630.0	-0.7090536999047472	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
14	POTASSIUM	Leaf	3878.0	24700.0	-0.24922981870565544	--
13	BETA-PINENE	Plant	20.0	1540.0	1.2273041399455444	--
13	ALPHA-TERPINENE	Leaf	10.0	56.0	-0.2834251845983478	--
13	ALPHA-TERPINENE	Et		1000.0		--
13	BETA-PINENE	Et		18000.0		--
13	ALPHA-TERPINENE	Leaf Essent. Oil		2000.0	-0.5761001164044018	--
13	PALMITIC-ACID	Fruit Essent. Oil				--
13	BETA-PINENE	Leaf Essent. Oil	21000.0	55000.0	1.622889330955553	--
13	ALPHA-TERPINENE	Essential Oil		11200.0	-0.4634179308976379	--
13	PALMITIC-ACID	Seed				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
13	BETA-PINENE	Essential Oil	11300.0	26100.0	-0.15085215632839455	--
13	BETULIN	Leaf		15.0	-0.47962706385165327	--
13	DIOSMETIN	Plant				Stitt, Paul. Why George should eat broccoli.
12	PINENE	Leaf	420.0	2352.0	-0.35113562909022744	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
12	PINENE	Essential Oil		84000.0	-1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	STIGMASTEROL	Leaf	5.0	230.0	1.7806618408085848	--
12	STIGMASTEROL	Fruit Essent. Oil				--
12	BORNYL-ACETATE	Shoot	5.0	1780.0	2.5481701537732313	--
12	GLYCINE	Plant				Stitt, Paul. Why George should eat broccoli.
12	COPPER	Leaf	7.0	8.0	-0.540960423661207	USDA's Ag Handbook 8 and sequelae)
11	GAMMA-TERPINENE	Leaf Essent. Oil		3000.0	-0.6853547696905973	--
11	GAMMA-TERPINENE	Leaf	15.0	140.0	-0.1019870841807531	--
11	ALPHA-PHELLANDRENE	Leaf Essent. Oil				--
11	ALPHA-PHELLANDRENE	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
11	PANTOTHENIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
11	ALPHA-PHELLANDRENE	Essential Oil				--
11	GAMMA-TERPINENE	Et		4000.0		--
10	CIRSILINEOL	Plant				Stitt, Paul. Why George should eat broccoli.
10	ALPHA-AMYRIN	Plant				--
10	ALPHA-AMYRIN	Leaf		1800.0		--
9	TERPINOLENE	Leaf Essent. Oil		2000.0	-0.5940205732207128	--
9	DELTA-CADINENE	Leaf Essent. Oil				--
9	BETA-AMYRIN	Plant				--
9	CAMPHENE	Et		47000.0		--
9	BETA-AMYRIN	Leaf		1000.0		--
9	CAMPHENE	Essential Oil	30200.0	60700.0	1.1306904837156095	--
9	CAMPHENE	Leaf Essent. Oil	28000.0	66400.0	1.484566818920243	--
9	DELTA-CADINENE	Plant	2.0	14.0	-0.4659017963716953	--
9	CAMPHENE	Leaf	20.0	18592.0	6.834837822452428	--
9	TERPINOLENE	Plant		112.0	0.2506839298132136	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
9	OXALIC-ACID	Plant				--
8	STEARIC-ACID	Seed				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
8	STEARIC-ACID	Fruit Essent. Oil				--
8	TYROSINE	Plant				Stitt, Paul. Why George should eat broccoli.
8	CARYOPHYLENE-OXIDE	Essential Oil		13100.0		--
8	CARYOPHYLENE-OXIDE	Plant	55.0	308.0	0.16441757054150238	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
7	LINALYL-ACETATE	Plant	0.0	6048.0	2.330313404492723	--
7	FUMARIC-ACID	Plant				--
7	CHRYSOERIOL	Plant				Stitt, Paul. Why George should eat broccoli.
7	ISOBORNEOL	Shoot	0.0	784.0	1.1758265637832626	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
7	ISOBORNEOL	Essential Oil		3800.0		--
7	ISOBORNEOL	Leaf Essent. Oil		28000.0	-1.0	--
7	HISPIDULIN	Leaf				--
7	CARNOSOLIC-ACID	Leaf		2100.0		--
7	LUTEOLIN-7-GLUCOSIDE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
6	ALPHA-THUJONE	Et		206000.0		--
6	ALPHA-THUJONE	Leaf	200.0	10172.0	2.575761084269138	--
6	ALPHA-THUJONE	Essential Oil	73300.0	408500.0		--
6	UVAOL	Plant				--
6	MASLINIC-ACID	Leaf		46.0	-0.8872714302780136	--
6	IRON	Leaf	2.4	15.0	-0.8825570778618611	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	BETA-SITOSTEROL-D-GLUCOSIDE	Seed				--
6	ALPHA-THUJONE	Leaf Essent. Oil	200000.0	363300.0		--
5	BETA-THUJONE	Essential Oil	52300.0	142500.0		--
5	ROSMANOL	Shoot		11.0		--
5	ROSMANOL	Resin, Exudate, Sap				--
5	SABINOL	Leaf	85.0	476.0	0.31621378249351945	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	SABINENE	Leaf	10.0	56.0	-0.22552904691038753	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
5	SABINENE	Leaf Essent. Oil		2000.0	-0.6066700271910461	--
5	SABINENE	Essential Oil		1200.0	-0.5875917391877868	--
5	ROSMANOL	Plant				Stitt, Paul. Why George should eat broccoli.
5	BETA-THUJONE	Leaf	200.0	9968.0	2.7606909658238585	--
5	GLUTAMINE	Plant				--
5	BETA-THUJONE	Leaf Essent. Oil	174000.0	356000.0		--
5	ALUMINUM	Leaf	18.0	115.0	-0.6571553869693828	--
5	BETA-THUJONE	Et		151000.0		--
4	PHOSPHORUS	Leaf	201.0	1280.0	-0.6791795625313858	--
4	PHELLANDRENE	Leaf	100.0	560.0	-0.35918289789876834	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
4	NEPETIN	Plant				--
4	PHELLANDRENE	Essential Oil		20000.0		--
4	BORON	Leaf	25.0	41.0	-0.5517818218876644	Betting on Boron, Unpublished draft by J. A. Duke on file at USDA, draft and papers relating to boron percentages. Includes Internat. Z. Vit. Ern. Forschung 43:1973 (boron).

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	TIN	Leaf	1.3	8.0	-0.9124295958448216	--
4	SILICON	Leaf	0.5	3.1	-0.40397146474890056	--
3	GENKWANIN	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
3	SALVIN-MONOMETHYL-ETHER	Leaf				--
3	SALVIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
3	CIRSILIOL	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
3	ALPHA-CEDRENE	Leaf Essent. Oil				--
3	BETA-PHELLANDRENE	Leaf	5.0	28.0	-0.39745256523265804	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
3	ALPHA-CADINOL	Leaf Essent. Oil				--
3	CYNAROSIDE	Leaf				--
3	ALPHA-CEDRENE	Plant				Stitt, Paul. Why George should eat broccoli.
3	BETA-PHELLANDRENE	Leaf Essent. Oil		1000.0	-0.8347075553554938	--
3	AROMADENDRENE	Plant				--
3	ALANINE	Plant				Stitt, Paul. Why George should eat broccoli.
3	SALVIOL	Essential Oil				--
2	ALPHA-HUMULENE	Essential Oil		19300.0	-0.306582227205239	--
2	CAMPESTEROL	Leaf		120.0	-0.2035509596292973	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
2	CARNOSIC-ACID	Shoot		35.0	-0.666399572485972	--
2	POMOLIC-ACID	Leaf		3.0	-1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	3-ISOTHUJONE	Leaf				--
2	ALPHA-HUMULENE	Leaf Essent. Oil		29000.0	0.25622083823143005	--
2	CARNOSIC-ACID	Leaf		12400.0	1.5899657743835183	--
2	CAMPESTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	METHYL-ISOVALERATE	Plant	7.0	42.0		--
2	MANOOL	Shoot	556.0	1478.0		--
2	ALPHA-HUMULENE	Leaf	110.0	616.0	0.5782902434464878	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	MANOOL	Essential Oil				--
2	ASPARAGINE	Plant				--
2	TRANS-PINOCARVEOL	Leaf Essent. Oil				--
2	CAMPESTEROL	Fruit Essent. Oil				--
2	HUMULENE	Essential Oil		17900.0	-1.0	--
2	HUMULENE	Leaf Essent. Oil				--
2	BETA-MYRCENE	Essential Oil				--
2	ALPHA-HUMULENE	Et		21000.0		--
2	PHYTOSTEROLS	Leaf		2440.0	0.0028854038801737	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
2	MYRTENOL	Leaf Essent. Oil		2000.0		--
2	CARNOSIC-ACID	Resin, Exudate, Sap		57000.0		--
2	COBALT	Leaf				--
1	ROSMANOL-9-ETHYL-ETHER	Shoot		144.0		--
1	VIRIDIFLOROL	Leaf				--
1	DELTA-CADINOL	Leaf Essent. Oil				--
1	ROSMADIAL	Resin, Exudate, Sap		6000.0		--

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1	LABIATIC-ACID	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	ISOCARYOPHYLLENE	Plant				--
1	CHOLESTEROL	Fruit Essent. Oil				--
1	ISOROSMANOL	Shoot		57.0		--
1	VIRIDIFLOROL	Essential Oil				--
1	SODIUM	Plant	11.0	12.0	-0.30341378566295807	Father Nature's Farmacy: The aggregate of all these three-letter citations.
1	CHOLESTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	SODIUM	Leaf	170.0	1080.0	-0.4554694713688264	--
1	SERINE	Plant				Stitt, Paul. Why George should eat broccoli.