Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Salvia officinalis

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
67	1,8-CINEOLE	Plant	390.0	6288.0	1.2033227605211898	--
2	3-ISOTHUJONE	Leaf				--
3	ALANINE	Plant				Stitt, Paul. Why George should eat broccoli.
10	ALPHA-AMYRIN	Plant				--
10	ALPHA-AMYRIN	Leaf		1800.0		--
3	ALPHA-CADINOL	Leaf Essent. Oil				--
3	ALPHA-CEDRENE	Leaf Essent. Oil				--
3	ALPHA-CEDRENE	Plant				Stitt, Paul. Why George should eat broccoli.
2	ALPHA-HUMULENE	Et		21000.0		--
2	ALPHA-HUMULENE	Essential Oil		19300.0	-0.306582227205239	--
2	ALPHA-HUMULENE	Leaf Essent. Oil		29000.0	0.25622083823143005	--
2	ALPHA-HUMULENE	Leaf	110.0	616.0	0.5782902434464878	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	ALPHA-PHELLANDRENE	Essential Oil				--
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.
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	--
13	ALPHA-TERPINENE	Leaf	10.0	56.0	-0.2834251845983478	--
13	ALPHA-TERPINENE	Et		1000.0		--
13	ALPHA-TERPINENE	Leaf Essent. Oil		2000.0	-0.5761001164044018	--
13	ALPHA-TERPINENE	Essential Oil		11200.0	-0.4634179308976379	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
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	--
23	ALPHA-TERPINEOL	Essential Oil		3700.0	-0.6091856576306849	--
6	ALPHA-THUJONE	Leaf	200.0	10172.0	2.575761084269138	--
6	ALPHA-THUJONE	Leaf Essent. Oil	200000.0	363300.0		--
6	ALPHA-THUJONE	Essential Oil	73300.0	408500.0		--
6	ALPHA-THUJONE	Et		206000.0		--
5	ALUMINUM	Leaf	18.0	115.0	-0.6571553869693828	--
101	APIGENIN	Shoot				--
101	APIGENIN	Plant				Stitt, Paul. Why George should eat broccoli.
3	AROMADENDRENE	Plant				--
112	ASCORBIC-ACID	Leaf	55.0	350.0	-0.4114445568899699	--
2	ASPARAGINE	Plant				--
9	BETA-AMYRIN	Plant				--
9	BETA-AMYRIN	Leaf		1000.0		--
53	BETA-CAROTENE	Leaf	6.0	39.0	-0.9680962342519674	--
2	BETA-MYRCENE	Essential Oil				--
3	BETA-PHELLANDRENE	Leaf Essent. Oil		1000.0	-0.8347075553554938	--
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.
13	BETA-PINENE	Plant	20.0	1540.0	1.2273041399455444	--
13	BETA-PINENE	Et		18000.0		--
13	BETA-PINENE	Leaf Essent. Oil	21000.0	55000.0	1.622889330955553	--
13	BETA-PINENE	Essential Oil	11300.0	26100.0	-0.15085215632839455	--
47	BETA-SITOSTEROL	Stem		1214.0	1.0861956164972184	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
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				--
6	BETA-SITOSTEROL-D-GLUCOSIDE	Seed				--
5	BETA-THUJONE	Leaf Essent. Oil	174000.0	356000.0		--
5	BETA-THUJONE	Et		151000.0		--
5	BETA-THUJONE	Essential Oil	52300.0	142500.0		--
5	BETA-THUJONE	Leaf	200.0	9968.0	2.7606909658238585	--
13	BETULIN	Leaf		15.0	-0.47962706385165327	--
35	BORNEOL	Shoot		7000.0	6.370019299829522	--
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	--
12	BORNYL-ACETATE	Shoot	5.0	1780.0	2.5481701537732313	--
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).
102	CAFFEIC-ACID	Inflorescence				--
102	CAFFEIC-ACID	Shoot				--
28	CALCIUM	Leaf	1696.0	10800.0	-0.5218305708813075	--
2	CAMPESTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
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.)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
2	CAMPESTEROL	Fruit Essent. Oil				--
9	CAMPHENE	Leaf	20.0	18592.0	6.834837822452428	--
9	CAMPHENE	Et		47000.0		--
9	CAMPHENE	Essential Oil	30200.0	60700.0	1.1306904837156095	--
9	CAMPHENE	Leaf Essent. Oil	28000.0	66400.0	1.484566818920243	--
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	--
2	CARNOSIC-ACID	Leaf		12400.0	1.5899657743835183	--
2	CARNOSIC-ACID	Resin, Exudate, Sap		57000.0		--
2	CARNOSIC-ACID	Shoot		35.0	-0.666399572485972	--
20	CARNOSOL	Resin, Exudate, Sap		36000.0		--
20	CARNOSOL	Leaf		1660.0	-0.5296891454855135	--
20	CARNOSOL	Shoot		34.0	-0.9354703756918734	--
20	CARNOSOL	Plant				--
7	CARNOSOLIC-ACID	Leaf		2100.0		--
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	--
8	CARYOPHYLLENE-OXIDE	Plant	55.0	308.0	0.16441757054150238	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	CARYOPHYLLENE-OXIDE	Essential Oil		13100.0		--
43	CATECHIN	Plant				--
77	CHLOROGENIC-ACID	Shoot				--
77	CHLOROGENIC-ACID	Inflorescence				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
1	CHOLESTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	CHOLESTEROL	Fruit Essent. Oil				--
24	CHROMIUM	Leaf	0.1	0.3	-0.621193465203015	--
7	CHRYSOERIOL	Plant				Stitt, Paul. Why George should eat broccoli.
10	CIRSILINEOL	Plant				Stitt, Paul. Why George should eat broccoli.
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.
53	CITRAL	Plant				Stitt, Paul. Why George should eat broccoli.
2	COBALT	Leaf				--
12	COPPER	Leaf	7.0	8.0	-0.540960423661207	USDA's Ag Handbook 8 and sequelae)
3	CYNAROSIDE	Leaf				--
9	DELTA-CADINENE	Leaf Essent. Oil				--
9	DELTA-CADINENE	Plant	2.0	14.0	-0.4659017963716953	--
1	DELTA-CADINOL	Leaf Essent. Oil				--
13	DIOSMETIN	Plant				Stitt, Paul. Why George should eat broccoli.
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.
17	FARNESOL	Plant				--
61	FERULIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
15	FIBER	Leaf		87000.0	-0.9217097607872751	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
7	FUMARIC-ACID	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
62	GALLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
11	GAMMA-TERPINENE	Et		4000.0		--
11	GAMMA-TERPINENE	Leaf Essent. Oil		3000.0	-0.6853547696905973	--
11	GAMMA-TERPINENE	Leaf	15.0	140.0	-0.1019870841807531	--
3	GENKWANIN	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
35	GERANIOL	Plant				Stitt, Paul. Why George should eat broccoli.
5	GLUTAMINE	Plant				--
12	GLYCINE	Plant				Stitt, Paul. Why George should eat broccoli.
7	HISPIDULIN	Leaf				--
2	HUMULENE	Essential Oil		17900.0	-1.0	--
2	HUMULENE	Leaf Essent. Oil				--
6	IRON	Leaf	2.4	15.0	-0.8825570778618611	--
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	--
1	ISOCARYOPHYLLENE	Plant				--
1	ISOROSMANOL	Shoot		57.0		--
1	LABIATIC-ACID	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
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	--
60	LIMONENE	Plant	39.0	2380.0	0.9769131249982739	--
53	LINALOOL	Plant	0.0	3500.0	-0.1908197582561713	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
53	LINALOOL	Et		11000.0		--
53	LINALOOL	Leaf Essent. Oil	4000.0	46600.0	-0.40077393425160296	--
53	LINALOOL	Essential Oil	1700.0	5000.0	-0.560725569158283	--
7	LINALYL-ACETATE	Plant	0.0	6048.0	2.330313404492723	--
27	LINOLEIC-ACID	Fruit Essent. Oil				--
27	LINOLEIC-ACID	Seed		73000.0	-0.29236236831545726	--
78	LUTEOLIN	Shoot				--
78	LUTEOLIN	Leaf				--
7	LUTEOLIN-7-GLUCOSIDE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
65	MAGNESIUM	Leaf	444.0	2830.0	-0.5003307709599559	--
15	MALIC-ACID	Plant				--
14	MANGANESE	Leaf	0.5	3.0	-0.4548985090553243	--
2	MANOOL	Shoot	556.0	1478.0		--
2	MANOOL	Essential Oil				--
6	MASLINIC-ACID	Leaf		46.0	-0.8872714302780136	--
63	MENTHOL	Plant				--
63	MENTHOL	Leaf				--
2	METHYL-ISOVALERATE	Plant	7.0	42.0		--
22	MYRCENE	Et		8000.0	-1.0	--
22	MYRCENE	Plant	0.0	336.0	-0.10695418064014987	--
22	MYRCENE	Essential Oil	3700.0	10400.0	-0.3077036496607786	--
22	MYRCENE	Leaf Essent. Oil	9000.0	15700.0	-0.3056695322092534	--
2	MYRTENOL	Leaf Essent. Oil		2000.0		--
4	NEPETIN	Plant				--
39	NIACIN	Leaf	10.0	62.0	-0.4318167758906651	--
64	OLEANOLIC-ACID	Stem		400.0	1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
64	OLEANOLIC-ACID	Leaf	140.0	786.0	-0.36135857674665767	--
18	OLEIC-ACID	Seed		35500.0	-0.6872693677072723	--
18	OLEIC-ACID	Fruit Essent. Oil				--
9	OXALIC-ACID	Plant				--
25	P-COUMARIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
16	P-CYMENE	Et		11000.0	-1.0	--
16	P-CYMENE	Leaf Essent. Oil	7000.0	17700.0	-0.5156620336360256	--
16	P-CYMENE	Essential Oil	3100.0	5400.0	-0.5888102139189108	--
16	P-CYMENE	Shoot	15.0	495.0	-0.10900236438234769	--
13	PALMITIC-ACID	Seed				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
13	PALMITIC-ACID	Fruit Essent. Oil				--
11	PANTOTHENIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
24	PECTIN	Shoot				--
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	PHELLANDRENE	Essential Oil		20000.0		--
4	PHOSPHORUS	Leaf	201.0	1280.0	-0.6791795625313858	--
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.)
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	--
2	POMOLIC-ACID	Leaf		3.0	-1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
14	POTASSIUM	Leaf	3878.0	24700.0	-0.24922981870565544	--
14	POTASSIUM	Plant	10700.0	11630.0	-0.7090536999047472	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	RIBOFLAVIN	Leaf	0.6	3.6	-0.16098657500422545	--
1	ROSMADIAL	Resin, Exudate, Sap		6000.0		--
5	ROSMANOL	Shoot		11.0		--
5	ROSMANOL	Resin, Exudate, Sap				--
5	ROSMANOL	Plant				Stitt, Paul. Why George should eat broccoli.
1	ROSMANOL-9-ETHYL-ETHER	Shoot		144.0		--
57	ROSMARINIC-ACID	Leaf				--
57	ROSMARINIC-ACID	Inflorescence	30000.0	42000.0	0.25850024578765574	--
57	ROSMARINIC-ACID	Tissue Culture				--
57	ROSMARINIC-ACID	Shoot	2000.0	5800.0	-0.5832582116490932	--
57	ROSMARINIC-ACID	Plant	30000.0	50600.0	1.3515537858959146	--
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	SABINOL	Leaf	85.0	476.0	0.31621378249351945	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
34	SALICYLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
3	SALVIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
3	SALVIN-MONOMETHYL-ETHER	Leaf				--
3	SALVIOL	Essential Oil				--
60	SELENIUM	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
1	SERINE	Plant				Stitt, Paul. Why George should eat broccoli.
4	SILICON	Leaf	0.5	3.1	-0.40397146474890056	--
1	SODIUM	Plant	11.0	12.0	-0.30341378566295807	Father Nature's Farmacy: The aggregate of all these three-letter citations.
1	SODIUM	Leaf	170.0	1080.0	-0.4554694713688264	--
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				--
12	STIGMASTEROL	Leaf	5.0	230.0	1.7806618408085848	--
12	STIGMASTEROL	Fruit Essent. Oil				--
35	TANNIN	Plant	20000.0	80000.0	-0.053082229266390064	--
23	TERPINEN-4-OL	Leaf	10.0	1120.0	0.29918716656064637	--
23	TERPINEN-4-OL	Leaf Essent. Oil	2000.0	3000.0	-0.523716551964413	--
23	TERPINEN-4-OL	Essential Oil		4500.0	-0.5734207195469667	--
18	TERPINEOL	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
18	TERPINEOL	Essential Oil				--
9	TERPINOLENE	Plant		112.0	0.2506839298132136	--
9	TERPINOLENE	Leaf Essent. Oil		2000.0	-0.5940205732207128	--
31	THIAMIN	Leaf	7.0	8.0	-0.06349209547044472	Father Nature's Farmacy: The aggregate of all these three-letter citations.
17	THUJONE	Et		457000.0		--
17	THUJONE	Essential Oil	451300.0	531000.0	1.0	--
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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
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.
71	THYMOL	Leaf				--
71	THYMOL	Essential Oil				--
4	TIN	Leaf	1.3	8.0	-0.9124295958448216	--
2	TRANS-PINOCARVEOL	Leaf Essent. Oil				--
8	TYROSINE	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				--
6	UVAOL	Plant				--
24	VANILLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
1	VIRIDIFLOROL	Leaf				--
1	VIRIDIFLOROL	Essential Oil				--
77	ZINC	Leaf	1.0	5.9	-0.4905596892021207	--