

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Salvia officinalis*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	WATER	Leaf		843000.0	0.1764219759131201	--
0	CARBOHYDRATES	Leaf	103620.0	660000.0	0.38292106761842515	--
17	THUJONE	Essential Oil	451300.0	531000.0	1.0	--
41	CAMPHOR	Leaf Essent. Oil	44000.0	458000.0	2.005169580755753	--
17	THUJONE	Et		457000.0		--
6	ALPHA-THUJONE	Essential Oil	73300.0	408500.0		--
6	ALPHA-THUJONE	Leaf Essent. Oil	200000.0	363300.0		--
0	1,8-CINEOL	Leaf Essent. Oil	91000.0	357000.0	1.9399550242552641	--
5	BETA-THUJONE	Leaf Essent. Oil	174000.0	356000.0		--
0	ALPHA-BETA-THUJONE	Essential Oil		347000.0		--
41	CAMPHOR	Essential Oil	76000.0	305000.0	0.54343127227621	--
0	FIBER(DIETARY)	Leaf		289000.0	-1.0282378241946064	--
0	FAT	Seed		250000.0	-0.08105194719463996	--
35	BORNEOL	Leaf Essent. Oil	16000.0	250000.0	2.73359024149356	--
41	CAMPHOR	Pericarp Essent. Oil		229000.0		--
0	1,8-CINEOL	Essential Oil	73000.0	217000.0	1.9052102662799937	--
0	LINALOOL-ACETATE	Essential Oil	2000.0	216000.0	1.9636083246350857	--
6	ALPHA-THUJONE	Et		206000.0		--
0	FIBER(CRUDE)	Leaf		196000.0	1.790184111544934	--
0	PROTEIN	Seed		180000.0	-0.4785438804290316	--
35	BORNEOL	Essential Oil	19700.0	156000.0	0.627691236095563	--
5	BETA-THUJONE	Et		151000.0		--
5	BETA-THUJONE	Essential Oil	52300.0	142500.0		--
0	FAT	Leaf	21666.0	138000.0	1.6247882242706593	--
0	PROTEIN	Leaf	18055.0	115000.0	-0.9661229417649582	--
0	ASH	Leaf	13659.0	87000.0	-0.5611877153937178	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	FIBER	Leaf		87000.0	-0.9217097607872751	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	LINOLENIC-ACID	Seed	42000.0	86750.0	0.9345778796061399	--
60	LIMONENE	Essential Oil	6600.0	85000.0	-0.2478161403169539	--
12	PINENE	Essential Oil		84000.0	-1.0	--
35	TANNIN	Plant	20000.0	80000.0	-0.053082229266390064	--
35	BORNEOL	Et		79000.0		--
27	LINOLEIC-ACID	Seed		73000.0	-0.29236236831545726	--
9	CAMPHENE	Leaf Essent. Oil	28000.0	66400.0	1.484566818920243	--
0	BETA-CARYOPHYLLENE	Essential Oil	18900.0	66000.0	-0.22342680293575198	--
0	BORNEOL-ACETATE	Leaf Essent. Oil	1000.0	63500.0	-0.028206534857999635	--
9	CAMPHENE	Essential Oil	30200.0	60700.0	1.1306904837156095	--
0	RESIN	Plant	50000.0	60000.0	-0.5271561735476993	--
0	BORNEOL-ACETATE	Essential Oil	17900.0	59000.0	-0.13264034547163733	--
2	CARNOSIC-ACID	Resin, Exudate, Sap		57000.0		--
28	ALPHA-PINENE	Leaf Essent. Oil	35000.0	55000.0	-0.4505855480163243	--
13	BETA-PINENE	Leaf Essent. Oil	21000.0	55000.0	1.622889330955553	--
0	SELIN-11-EN-4-OL	Leaf Essent. Oil		54000.0		--
57	ROSMARINIC-ACID	Plant	30000.0	50600.0	1.3515537858959146	--
0	1,8-CINEOL	Et		50000.0		--
9	CAMPHENE	Et		47000.0		--
53	LINALOOL	Leaf Essent. Oil	4000.0	46600.0	-0.40077393425160296	--
57	ROSMARINIC-ACID	Inflorescence	30000.0	42000.0	0.25850024578765574	--
0	BETA-CARYOPHYLLENE	Et		41000.0		--
28	ALPHA-PINENE	Essential Oil	11700.0	40100.0	-0.2072109908720455	--
0	CARNOSIC-ACID-METHYL-ESTER	Resin, Exudate, Sap		39000.0		--
60	LIMONENE	Leaf Essent. Oil	10000.0	36400.0	-0.517322999711508	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
20	CARNOSOL	Resin, Exudate, Sap		36000.0		--
18	OLEIC-ACID	Seed		35500.0	-0.6872693677072723	--
28	ALPHA-PINENE	Et		35000.0	1.0	--
0	LINALOOL-ACETATE	Leaf Essent. Oil	2000.0	34900.0	1.6339378873531796	--
0	ISOBORNEOL-ACETATE	Essential Oil		33700.0	1.0	--
31	CARYOPHYLLENE	Essential Oil		33000.0	-0.14865660979366116	--
2	ALPHA-HUMULENE	Leaf Essent. Oil		29000.0	0.25622083823143005	--
7	ISOBORNEOL	Leaf Essent. Oil		28000.0	-1.0	--
0	EO	Plant	5000.0	28000.0	1.3878217608821395	--
13	BETA-PINENE	Essential Oil	11300.0	26100.0	-0.15085215632839455	--
0	BORNEOL-ACETATE	Et		26000.0		--
14	POTASSIUM	Leaf	3878.0	24700.0	-0.24922981870565544	--
2	ALPHA-HUMULENE	Et		21000.0		--
0	ROYLEANONE	Root		20300.0		--
4	PELLANDRENE	Essential Oil		20000.0		--
0	EO	Leaf		20000.0	0.7445770670718886	--
2	ALPHA-HUMULENE	Essential Oil		19300.0	-0.306582227205239	--
9	CAMPHENE	Leaf	20.0	18592.0	6.834837822452428	--
13	BETA-PINENE	Et		18000.0		--
2	HUMULENE	Essential Oil		17900.0	-1.0	--
16	P-CYMENE	Leaf Essent. Oil	7000.0	17700.0	-0.5156620336360256	--
22	MYRCENE	Leaf Essent. Oil	9000.0	15700.0	-0.3056695322092534	--
60	LIMONENE	Et		14000.0	-1.0	--
0	ALPHA-THUJENE	Leaf Essent. Oil		13800.0	-0.41897395872827414	--
8	CARYOPHYLLENE-OXIDE	Essential Oil		13100.0		--
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	Reference Citation
0	(-)-THUJONE	Plant	2500.0	13000.0		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.
2	CARNOSIC-ACID	Leaf		12400.0	1.5899657743835183	--
14	POTASSIUM	Plant	10700.0	11630.0	-0.7090536999047472	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
13	ALPHA-TERPINENE	Essential Oil		11200.0	-0.4634179308976379	--
53	LINALOOL	Et		11000.0		--
16	P-CYMENE	Et		11000.0	-1.0	--
0	BETA-CARYOPHYLLENE	Leaf Essent. Oil		11000.0	-0.34048091992384494	--
28	CALCIUM	Leaf	1696.0	10800.0	-0.5218305708813075	--
22	MYRCENE	Essential Oil	3700.0	10400.0	-0.3077036496607786	--
6	ALPHA-THUJONE	Leaf	200.0	10172.0	2.575761084269138	--
0	LINALOOL-ACETATE	Et		10000.0		--
0	TANNINS	Leaf	785.0	10000.0	-1.0854284522770363	--
5	BETA-THUJONE	Leaf	200.0	9968.0	2.7606909658238585	--
0	ISOBORNEOL-ACETATE	Shoot	168.0	9436.0		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
41	CAMPHOR	Leaf	0.0	9324.0	-0.03988163889064865	--
0	ALPHA-TERPINEOL ACETATE	Et		9000.0		--
22	MYRCENE	Et		8000.0	-1.0	--
0	2-METHYL-3-METHYLENE-HEPT-CIS-5-ENE	Leaf Essent. Oil		8000.0		--
35	BORNEOL	Shoot		7000.0	6.370019299829522	--
67	1,8-CINEOLE	Plant	390.0	6288.0	1.2033227605211898	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CINEOLE	Shoot	500.0	6075.0	1.0	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
7	LINALYL-ACETATE	Plant	0.0	6048.0	2.330313404492723	--
1	ROSMADIAL	Resin, Exudate, Sap		6000.0		--
57	ROSMARINIC-ACID	Shoot	2000.0	5800.0	-0.5832582116490932	--
0	SALVIANOLIC-ACID-K	Plant		5760.0		--
16	P-CYMENE	Essential Oil	3100.0	5400.0	-0.5888102139189108	--
53	LINALOOL	Essential Oil	1700.0	5000.0	-0.560725569158283	--
0	NICOTINIC-ACID-AMIDE	Plant		5000.0		--
23	TERPINEN-4-OL	Essential Oil		4500.0	-0.5734207195469667	--
11	GAMMA-TERPINENE	Et		4000.0		--
7	ISOBORNEOL	Essential Oil		3800.0		--
23	ALPHA-TERPINEOL	Essential Oil		3700.0	-0.6091856576306849	--
0	DIPENTENE-O-DIPHENOLLACTONE	Leaf		3500.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	LINALOL	Plant	0.0	3500.0	0.3590366860587444	--
53	LINALOOL	Plant	0.0	3500.0	-0.1908197582561713	--
0	KILOCALORIES	Leaf		3420.0	0.6478563559445962	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	CIS-SALVENE	Essential Oil		3200.0		--
11	GAMMA-TERPINENE	Leaf Essent. Oil		3000.0	-0.6853547696905973	--
0	LEDOL	Leaf Essent. Oil		3000.0	-1.0	--
0	TRICYCLENE	Leaf Essent. Oil		3000.0	-1.0	--
23	TERPINEN-4-OL	Leaf Essent. Oil	2000.0	3000.0	-0.523716551964413	--
65	MAGNESIUM	Leaf	444.0	2830.0	-0.5003307709599559	--
47	BETA-SITOSTEROL	Leaf	5.0	2449.0	0.24430946587626218	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.)
60	LIMONENE	Plant	39.0	2380.0	0.9769131249982739	--
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.
7	CARNOSOLIC-ACID	Leaf		2100.0		--
2	MYRTENOL	Leaf Essent. Oil		2000.0		--
9	TERPINOLENE	Leaf Essent. Oil		2000.0	-0.5940205732207128	--
0	CIS-BETA-TERPINEOL	Leaf Essent. Oil		2000.0		--
5	SABINENE	Leaf Essent. Oil		2000.0	-0.6066700271910461	--
0	TRANS-SABINENE-HYDRATE	Leaf Essent. Oil		2000.0	-1.0	--
13	ALPHA-TERPINENE	Leaf Essent. Oil		2000.0	-0.5761001164044018	--
10	ALPHA-AMYRIN	Leaf		1800.0		--
0	ALLO-AROMADENDRENE	Essential Oil		1800.0	-1.0	--
12	BORNYL-ACETATE	Shoot	5.0	1780.0	2.5481701537732313	--
20	CARNOSOL	Leaf		1660.0	-0.5296891454855135	--
28	ALPHA-PINENE	Plant	7.0	1540.0	0.6083638735756228	--
13	BETA-PINENE	Plant	20.0	1540.0	1.2273041399455444	--
2	MANOOL	Shoot	556.0	1478.0		--
31	CARYOPHYLLENE	Leaf	1.0	1430.0	0.1300669724943753	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	THUJOL-ACETATE	Essential Oil		1300.0		--
0	SAGERINIC-ACID	Plant		1300.0		--
89	URSOLIC-ACID	Leaf	1255.0	1300.0	-0.38650833417091646	--
4	PHOSPHORUS	Leaf	201.0	1280.0	-0.6791795625313858	--
47	BETA-SITOSTEROL	Stem		1214.0	1.0861956164972184	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-THUJENE	Essential Oil		1200.0	-0.3928412484180114	--
5	SABINENE	Essential Oil		1200.0	-0.5875917391877868	--
23	TERPINEN-4-OL	Leaf	10.0	1120.0	0.29918716656064637	--
1	SODIUM	Leaf	170.0	1080.0	-0.4554694713688264	--
9	BETA-AMYRIN	Leaf		1000.0		--
3	BETA-PHELLANDRENE	Leaf Essent. Oil		1000.0	-0.8347075553554938	--
0	2-METHYL-3-METHYLENE-HEPT-TRANS-5-ENE	Leaf Essent. Oil		1000.0		--
23	ALPHA-TERPINEOL	Leaf Essent. Oil		1000.0	-0.8444420280137835	--
13	ALPHA-TERPINENE	Et		1000.0		--
23	ALPHA-TERPINEOL	Leaf	5.0	910.0	1.0071602347564552	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-SALVENE	Essential Oil		800.0		--
64	OLEANOLIC-ACID	Leaf	140.0	786.0	-0.36135857674665767	--
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.
0	BETA-CARYOPHYLLENE	Leaf	500.0	760.0	0.03728060572503595	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	ALPHA-HUMULENE	Leaf	110.0	616.0	0.5782902434464878	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	SABINYL-ACETATE	Plant	110.0	616.0		--
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.
16	P-CYMENE	Shoot	15.0	495.0	-0.10900236438234769	--
5	SABINOL	Leaf	85.0	476.0	0.31621378249351945	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
64	OLEANOLIC-ACID	Stem		400.0	1.0	--
0	ALPHA-THUJENE	Leaf	0.0	386.0	3.2507273876024785	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
112	ASCORBIC-ACID	Leaf	55.0	350.0	-0.4114445568899699	--
22	MYRCENE	Plant	0.0	336.0	-0.10695418064014987	--
8	CARYOPHYLLENE-OXIDE	Plant	55.0	308.0	0.16441757054150238	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	2-METHYL-3-METHYLENE-5-HEPTANE	Leaf	50.0	280.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
12	STIGMASTEROL	Leaf	5.0	230.0	1.7806618408085848	--
0	2-METHYL-3-METHYLENE-HEPT-CIS-5-ENE	Leaf	40.0	224.0		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	SAGEQUINONE-METHIDE-A	Shoot		207.0		--
89	URSOLIC-ACID	Stem		200.0	-0.8584003823146588	--
1	ROSMANOL-9-ETHYL-ETHER	Shoot		144.0		--
0	ROSMANOL-7-ETHYL-ETHER	Shoot		144.0		--
11	GAMMA-TERPINENE	Leaf	15.0	140.0	-0.1019870841807531	--
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.)
5	ALUMINUM	Leaf	18.0	115.0	-0.6571553869693828	--
9	TERPINOLENE	Plant		112.0	0.2506839298132136	--
0	OLEAN-12-EN-28-OIC-ACID	Shoot		86.0		--
0	TRICYCLENE	Leaf	15.0	84.0	1.3596086072298736	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALLO-AROMADENDRENE	Leaf	15.0	84.0	-0.1830077223581628	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	SAGEONE	Shoot	22.0	73.0		--
39	NIACIN	Leaf	10.0	62.0	-0.4318167758906651	--
1	ISOROSMANOL	Shoot		57.0		--
0	SAFFICINOLIDE	Shoot	35.0	57.0		--
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.
13	ALPHA-TERPINENE	Leaf	10.0	56.0	-0.2834251845983478	--
0	TRANS-SABINENE-HYDRATE	Leaf	10.0	56.0	1.6793837527948157	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CIS-BETA-TERPINEOL	Leaf	10.0	56.0		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	PRISTANE	Leaf		56.0		--
6	MASLINIC-ACID	Leaf		46.0	-0.8872714302780136	--
0	CARNOSIC-ACID-METHYL-ESTER	Shoot		45.0		--
2	METHYL-ISOVALERATE	Plant	7.0	42.0		--
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).
53	BETA-CAROTENE	Leaf	6.0	39.0	-0.9680962342519674	--
2	CARNOSIC-ACID	Shoot		35.0	-0.666399572485972	--
20	CARNOSOL	Shoot		34.0	-0.9354703756918734	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2-METHYL-3-METHYLENE-HEPT-TRANS-5-ENE	Leaf	5.0	28.0		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CALAMENE	Plant	5.0	28.0	1.0	--
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.
0	EPIOLEANOLIC-ACID	Leaf		20.0		--
0	2-ALPHA-HYDROXY-3-OXOLEAN-12-EN-28-OIC-ACID	Leaf		17.0		--
0	O-METHYL-CARNOSIC-ACID	Shoot		17.0		--
6	IRON	Leaf	2.4	15.0	-0.8825570778618611	--
13	BETULIN	Leaf		15.0	-0.47962706385165327	--
0	GAMMA-CADINENE	Plant	2.0	14.0	-0.45984857009077795	--
9	DELTA-CADINENE	Plant	2.0	14.0	-0.4659017963716953	--
0	URS-12-EN-28-OIC-ACID	Leaf		14.0		--
1	SODIUM	Plant	11.0	12.0	-0.30341378566295807	Father Nature's Farmacy: The aggregate of all these three-letter citations.
5	ROSMANOL	Shoot		11.0		--
0	EUGENOL-GLUCOSIDE	Leaf		9.0		--
0	THIAMINE	Leaf	1.3	8.2	0.7312289774690919	--
12	COPPER	Leaf	7.0	8.0	-0.540960423661207	USDA's Ag Handbook 8 and sequelae)
4	TIN	Leaf	1.3	8.0	-0.9124295958448216	--
31	THIAMIN	Leaf	7.0	8.0	-0.06349209547044472	Father Nature's Farmacy: The aggregate of all these three-letter citations.
77	ZINC	Leaf	1.0	5.9	-0.4905596892021207	--
15	RIBOFLAVIN	Leaf	0.6	3.6	-0.16098657500422545	--
4	SILICON	Leaf	0.5	3.1	-0.40397146474890056	--
2	POMOLIC-ACID	Leaf		3.0	-1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	MANGANESE	Leaf	0.5	3.0	-0.4548985090553243	--
0	7-METHOXY-ROSMANOL	Shoot		2.0	-1.0	--
0	6,7-DIMETHOXY-ROSMANOL	Shoot		2.0		--
0	2-AMINO-ADIPIIC-ACID	Shoot		1.6		--
0	SACCHAROPINE	Shoot		1.6	-0.7071067811865464	--
0	3-EPIOLEANOLIC-ACID	Leaf		1.4		--
0	EPIROSMANOL	Shoot		1.0		--
24	CHROMIUM	Leaf	0.1	0.3	-0.621193465203015	--
4	NEPETIN	Plant				--
10	ALPHA-AMYRIN	Plant				--
47	BETA-SITOSTEROL	Sprout Seedling				--
0	GAMMA-MAALIENE	Plant				--
60	SELENIUM	Leaf				--
3	ALPHA-CEDRENE	Leaf Essent. Oil				--
11	ALPHA-PHELLANDRENE	Leaf Essent. Oil				--
0	LUTEOLIN-7-GLYCOSIDE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
8	TYROSINE	Plant				Stitt, Paul. Why George should eat broccoli.
0	3-CARENE	Plant				--
0	BETA-BOURBONENE	Leaf Essent. Oil				--
1	VIRIDIFLOROL	Essential Oil				--
18	TERPINEOL	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
0	LINOLENIC-ACID	Fruit Essent. Oil				--
0	POTASSIUM-NITRATE	Plant				--
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.
1	CHOLESTEROL	Fruit Essent. Oil				--
13	PALMITIC-ACID	Seed				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	APIGENIN-7-O-BETA-D-GLUCURONYLPYRANOSIDE	Shoot				--
6	BETA-SITOSTEROL-D-GLUCOSIDE	Seed				--
0	N-TRIACONTANE	Plant				--
47	BETA-SITOSTEROL	Root				--
5	ROSMANOL	Resin, Exudate, Sap				--
0	SAPONIN	Plant				--
3	ALPHA-CADINOL	Leaf Essent. Oil				--
0	6-METHOXYLUTEOLIN-7-METHYL-ETHER	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	AVENASTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	LUTEOLIN-7-GLUCOSIDE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
13	DIOSMETIN	Plant				Stitt, Paul. Why George should eat broccoli.
0	(-)-THUJONE	Essential Oil				--
0	GAMMA-CADINENE	Leaf Essent. Oil				--
0	VALERANONE	Leaf Essent. Oil				--
10	CIRSILINEOL	Plant				Stitt, Paul. Why George should eat broccoli.
27	LINOLEIC-ACID	Fruit Essent. Oil				--
77	CHLOROGENIC-ACID	Inflorescence				--
0	DELTA-TERPINEOL	Leaf Essent. Oil				--
47	BETA-SITOSTEROL	Fruit Essent. Oil				--
62	GALLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
3	SALVIOL	Essential Oil				--
2	ASPARAGINE	Plant				--
78	LUTEOLIN	Shoot				--
0	TRANS-SABINOL	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	DELTA-TERPINEOL	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
89	URSOLIC-ACID	Root				--
18	TERPINEOL	Essential Oil				--
2	CAMPESTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	P-CYMEN-8-OL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	WAX	Plant				--
3	ALANINE	Plant				Stitt, Paul. Why George should eat broccoli.
7	FUMARIC-ACID	Plant				--
3	SALVIN-MONOMETHYL-ETHER	Leaf				--
0	7-O-ACETYL-HORMINONE	Root				--
7	CHRYSOERIOL	Plant				Stitt, Paul. Why George should eat broccoli.
0	CINAROSIDE	Shoot				--
25	P-COUMARIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
0	TRANS-SABINOL	Leaf Essent. Oil				--
7	HISPIDULIN	Leaf				--
0	ACETO-HYDROXY-ROYLEANONE	Plant				--
3	SALVIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	TRANS-OCIMENE	Plant				--
0	EPIROSMANOL	Resin, Exudate, Sap				--
0	PLANTEOSE	Seed				--
9	OXALIC-ACID	Plant				--
11	ALPHA-PHELLANDRENE	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
12	GLYCINE	Plant				Stitt, Paul. Why George should eat broccoli.
8	STEARIC-ACID	Seed				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
11	ALPHA-PHELLANDRENE	Essential Oil				--
1	VIRIDIFLOROL	Leaf				--
0	6-METHOXYLUTEOLIN-7-METHYL-ETHER	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
61	FERULIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
13	PALMITIC-ACID	Fruit Essent. Oil				--
0	SALVIGENIN-7-O-GLUCURONIDE	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
3	AROMADENDRENE	Plant				--
0	TRANS-ALLO-OCIMENE	Plant				--
2	COBALT	Leaf				--
63	MENTHOL	Plant				--
5	ROSMANOL	Plant				Stitt, Paul. Why George should eat broccoli.
1	DELTA-CADINOL	Leaf Essent. Oil				--
1	CHOLESTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
12	STIGMASTEROL	Fruit Essent. Oil				--
102	CAFFEIC-ACID	Shoot				--
0	ALPHA-OLEANOLIC-ACID	Plant				--
2	CAMPESTEROL	Fruit Essent. Oil				--
5	GLUTAMINE	Plant				--
0	ALPHA-MUUROLENE	Leaf Essent. Oil				--
0	BETA-OLEANOLIC-ACID	Plant				--
15	MALIC-ACID	Plant				--
24	VANILLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
0	6-METHOXYLUTEOLIN	Plant				--
0	SALVIGENIN	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	HYDROXY-ROYLEANONE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	APIGENIN-7-O-BETA-D-GLUCURONYLPYRANOSIDE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	TRANS-3-HEXENAL	Plant				--
0	2-ALPHA,3-ALPHA-DIHYDROXY-OLEAN-12-EN-28-OIC-ACID	Leaf				--
53	CITRAL	Plant				Stitt, Paul. Why George should eat broccoli.
63	MENTHOL	Leaf				--
9	DELTA-CADINENE	Leaf Essent. Oil				--
2	TRANS-PINOCARVEOL	Leaf Essent. Oil				--
77	CHLOROGENIC-ACID	Shoot				--
8	STEARIC-ACID	Fruit Essent. Oil				--
102	CAFFEIC-ACID	Inflorescence				--
0	GERMANICOL	Plant				--
0	PICROSALVIN	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	BETA-COPAENE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	UVAOL	Plant				--
0	6-METHOXYGENKWANIN-7-METHYL-ETHER	Plant				--
2	BETA-MYRCENE	Essential Oil				--
0	SALVIATANNIN	Leaf				--
57	ROSMARINIC-ACID	Leaf				--
101	APIGENIN	Plant				Stitt, Paul. Why George should eat broccoli.
0	LEDENE	Plant				--
0	1-OCTEN-3-OL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CIS-SABINENE-HYDRATE	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
3	CYNAROSIDE	Leaf				--
0	TRANS-BETA-OCIMENE	Leaf Essent. Oil				--
0	SPATHULENOL	Leaf Essent. Oil				--
43	CATECHIN	Plant				--
0	ALPHA-GURJUNENE	Plant				--
35	GERANIOL	Plant				Stitt, Paul. Why George should eat broccoli.
0	LUTEOLIN-7-O-GLUCURONIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	6-METHOXY-GENKWANIN	Plant				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
17	FARNESOL	Plant				--
34	SALICYLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
0	1,8-CINEOL	Leaf				--
2	HUMULENE	Leaf Essent. Oil				--
1	LABIATIC-ACID	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
71	THYMOL	Essential Oil				--
0	1,8-CINEOLE-SYNTHETASE	Leaf				--
2	MANOOL	Essential Oil				--
0	AVENASTEROL	Fruit Essent. Oil				--
71	THYMOL	Leaf				--
0	PECTOLINAMARIGENIN	Plant				Stitt, Paul. Why George should eat broccoli.
0	CARNOSIC-ACID-12-METHYL-ETHER	Shoot				--
0	ALPHA-COROCALENE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	GENKWANIN	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	SERINE	Plant				Stitt, Paul. Why George should eat broccoli.
0	LUTEOLIN-7-O-BETA-D-GLUCOSIDE	Plant				Stitt, Paul. Why George should eat broccoli.
0	5-METHOXYALVIGENIN	Leaf				--
18	OLEIC-ACID	Fruit Essent. Oil				--
0	HORMINONE	Root				--
57	ROSMARINIC-ACID	Tissue Culture				--
0	CIRSIMARITRIN	Plant				Stitt, Paul. Why George should eat broccoli.
0	LUTEOLIN-7-GLYCOSIDE	Root				--
101	APIGENIN	Shoot				--
0	CIS-SABINENE-HYDRATE	Leaf Essent. Oil				--
20	CARNOSOL	Plant				--
24	PECTIN	Shoot				--
0	ALPHA-URSOLIC-ACID	Plant				--
0	SALVIGENIN	Shoot				--
0	BETA-URSOLIC-ACID	Plant				--
3	ALPHA-CEDRENE	Plant				Stitt, Paul. Why George should eat broccoli.
0	SELINA-5,11-DIENE	Plant				--
0	ALPHA-COPAENE	Leaf Essent. Oil				--
9	BETA-AMYRIN	Plant				--
0	LUTEOLIN-7-METHYL-ETHER	Plant				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	3-ISOTHUJONE	Leaf				--
0	CIRSILION	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
78	LUTEOLIN	Leaf				--
0	CIS-BETA-OCIMENE	Leaf Essent. Oil				--
11	PANTOTHENIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
1	ISOCARYOPHYLLENE	Plant				--