

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Salvia officinalis*

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.
0	(-)-THUJONE	Essential Oil				--
0	1,8-CINEOL	Leaf				--
0	1,8-CINEOL	Et		50000.0		--
0	1,8-CINEOL	Essential Oil	73000.0	217000.0	1.9052102662799937	--
0	1,8-CINEOL	Leaf Essent. Oil	91000.0	357000.0	1.9399550242552641	--
67	1,8-CINEOLE	Plant	390.0	6288.0	1.2033227605211898	--
0	1,8-CINEOLE-SYNTHEASE	Leaf				--
0	1-OCTEN-3-OL	Plant				--
0	2-ALPHA,3-ALPHA-DIHYDROXY-OLEAN-12-EN-28-OIC-ACID	Leaf				--
0	2-ALPHA-HYDROXY-3-OXO-OLEAN-12-EN-28-OIC-ACID	Leaf		17.0		--
0	2-AMINO-ADIPIC-ACID	Shoot		1.6		--
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.
0	2-METHYL-3-METHYLENE-HEPT-CIS-5-ENE	Leaf Essent. Oil		8000.0		--
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	2-METHYL-3-METHYLENE-HEPT-TRANS-5-ENE	Leaf Essent. Oil		1000.0		--
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	3-CARENE	Plant				--
0	3-EPIOLEANOLIC-ACID	Leaf		1.4		--
2	3-ISOTHUJONE	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	5-METHOXSALVIGENIN	Leaf				--
0	6,7-DIMETHOXY-ROSMANOL	Shoot		2.0		--
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.
0	6-METHOXYGENKWANIN-7-METHYL-ETHER	Plant				--
0	6-METHOXYLUTEOLIN	Plant				--
0	6-METHOXYLUTEOLIN-7-METHYL-ETHER	Plant				--
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	7-METHOXY-ROSMANOL	Shoot		2.0	-1.0	--
0	7-O-ACETYL-HORMINONE	Root				--
0	ACETO-HYDROXY-ROYLEANONE	Plant				--
3	ALANINE	Plant				Stitt, Paul. Why George should eat broccoli.
0	ALLO-AROMADENDRENE	Essential Oil		1800.0	-1.0	--
0	ALLO-AROMADENDRENE	Leaf	15.0	84.0	-0.1830077223581628	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
10	ALPHA-AMYRIN	Plant				--
10	ALPHA-AMYRIN	Leaf		1800.0		--
0	ALPHA-BETA-THUJONE	Essential Oil		347000.0		--
3	ALPHA-CADINOL	Leaf Essent. Oil				--
3	ALPHA-CEDRENE	Leaf Essent. Oil				--
3	ALPHA-CEDRENE	Plant				Stitt, Paul. Why George should eat broccoli.
0	ALPHA-COPAENE	Leaf Essent. Oil				--
0	ALPHA-COROCALENE	Plant				--
0	ALPHA-GURJUNENE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	ALPHA-HUMULENE	Et		21000.0		--
2	ALPHA-HUMULENE	Essential Oil		19300.0	-0.306582227205239	--
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	ALPHA-HUMULENE	Leaf Essent. Oil		29000.0	0.25622083823143005	--
0	ALPHA-MUUROLENE	Leaf Essent. Oil				--
0	ALPHA-OLEANOLIC-ACID	Plant				--
11	ALPHA-PHELLANDRENE	Essential Oil				--
11	ALPHA-PHELLANDRENE	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
11	ALPHA-PHELLANDRENE	Leaf Essent. Oil				--
28	ALPHA-PINENE	Essential Oil	11700.0	40100.0	-0.2072109908720455	--
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	--
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	--
23	ALPHA-TERPINEOL	Leaf Essent. Oil		1000.0	-0.8444420280137835	--
23	ALPHA-TERPINEOL	Essential Oil		3700.0	-0.6091856576306849	--
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	ALPHA-TERPINEOL ACETATE	Et		9000.0		--
0	ALPHA-THUJENE	Essential Oil		1200.0	-0.3928412484180114	--
0	ALPHA-THUJENE	Leaf Essent. Oil		13800.0	-0.41897395872827414	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
6	ALPHA-THUJONE	Essential Oil	73300.0	408500.0		--
6	ALPHA-THUJONE	Leaf	200.0	10172.0	2.575761084269138	--
6	ALPHA-THUJONE	Leaf Essent. Oil	200000.0	363300.0		--
6	ALPHA-THUJONE	Et		206000.0		--
0	ALPHA-URSOLIC-ACID	Plant				--
5	ALUMINUM	Leaf	18.0	115.0	-0.6571553869693828	--
101	APIGENIN	Plant				Stitt, Paul. Why George should eat broccoli.
101	APIGENIN	Shoot				--
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	APIGENIN-7-O-BETA-D-GLUCURONYLPYRANOSIDE	Shoot				--
3	AROMADENDRENE	Plant				--
112	ASCORBIC-ACID	Leaf	55.0	350.0	-0.4114445568899699	--
0	ASH	Leaf	13659.0	87000.0	-0.5611877153937178	--
2	ASPARAGINE	Plant				--
0	AVENASTEROL	Fruit Essent. Oil				--
0	AVENASTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
9	BETA-AMYRIN	Plant				--
9	BETA-AMYRIN	Leaf		1000.0		--
0	BETA-BOURBONENE	Leaf Essent. Oil				--
53	BETA-CAROTENE	Leaf	6.0	39.0	-0.9680962342519674	--
0	BETA-CARYOPHYLLENE	Et		41000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BETA-CARYOPHYLLENE	Leaf	500.0	760.0	0.03728060572503595	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BETA-CARYOPHYLLENE	Essential Oil	18900.0	66000.0	-0.22342680293575198	--
0	BETA-CARYOPHYLLENE	Leaf Essent. Oil		11000.0	-0.34048091992384494	--
0	BETA-COPAENE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	BETA-MYRCENE	Essential Oil				--
0	BETA-OLEANOLIC-ACID	Plant				--
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	BETA-PHELLANDRENE	Leaf Essent. Oil		1000.0	-0.8347075553554938	--
13	BETA-PINENE	Et		18000.0		--
13	BETA-PINENE	Leaf Essent. Oil	21000.0	55000.0	1.622889330955553	--
13	BETA-PINENE	Plant	20.0	1540.0	1.2273041399455444	--
13	BETA-PINENE	Essential Oil	11300.0	26100.0	-0.15085215632839455	--
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	--
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	--
0	BETA-URSOLIC-ACID	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
13	BETULIN	Leaf		15.0	-0.47962706385165327	--
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	--
0	BORNEOL-ACETATE	Essential Oil	17900.0	59000.0	-0.13264034547163733	--
0	BORNEOL-ACETATE	Leaf Essent. Oil	1000.0	63500.0	-0.028206534857999635	--
0	BORNEOL-ACETATE	Et		26000.0		--
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	Shoot				--
102	CAFFEIC-ACID	Inflorescence				--
0	CALAMENE	Plant	5.0	28.0	1.0	--
28	CALCIUM	Leaf	1696.0	10800.0	-0.5218305708813075	--
2	CAMPESTEROL	Fruit Essent. Oil				--
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	CAMPESTEROL	Fruit				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
9	CAMPHENE	Essential Oil	30200.0	60700.0	1.1306904837156095	--
9	CAMPHENE	Leaf Essent. Oil	28000.0	66400.0	1.484566818920243	--
9	CAMPHENE	Leaf	20.0	18592.0	6.834837822452428	--
9	CAMPHENE	Et		47000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
41	CAMPHOR	Leaf	0.0	9324.0	-0.03988163889064865	--
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		--
0	CARBOHYDRATES	Leaf	103620.0	660000.0	0.38292106761842515	--
2	CARNOSIC-ACID	Resin, Exudate, Sap		57000.0		--
2	CARNOSIC-ACID	Shoot		35.0	-0.666399572485972	--
2	CARNOSIC-ACID	Leaf		12400.0	1.5899657743835183	--
0	CARNOSIC-ACID-12-METHYL-ETHER	Shoot				--
0	CARNOSIC-ACID-METHYL-ESTER	Resin, Exudate, Sap		39000.0		--
0	CARNOSIC-ACID-METHYL-ESTER	Shoot		45.0		--
20	CARNOSOL	Resin, Exudate, Sap		36000.0		--
20	CARNOSOL	Shoot		34.0	-0.9354703756918734	--
20	CARNOSOL	Plant				--
20	CARNOSOL	Leaf		1660.0	-0.5296891454855135	--
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	Reference 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.
0	CINAROSIDE	Shoot				--
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.
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.
0	CIRSILION	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CIRSIMARITRIN	Plant				Stitt, Paul. Why George should eat broccoli.
0	CIS-BETA-OCIMENE	Leaf Essent. Oil				--
0	CIS-BETA-TERPINEOL	Leaf Essent. Oil		2000.0		--
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	CIS-SABINENE-HYDRATE	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CIS-SABINENE-HYDRATE	Leaf Essent. Oil				--
0	CIS-SALVENE	Essential Oil		3200.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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 sequela)
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				--
0	DELTA-TERPINEOL	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	DELTA-TERPINEOL	Leaf Essent. Oil				--
13	DIOSMETIN	Plant				Stitt, Paul. Why George should eat broccoli.
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.
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.
0	EO	Leaf		20000.0	0.7445770670718886	--
0	EO	Plant	5000.0	28000.0	1.3878217608821395	--
0	EPIOLEANOLIC-ACID	Leaf		20.0		--
0	EPIROSMANOL	Shoot		1.0		--
0	EPIROSMANOL	Resin, Exudate, Sap				--
0	EUGENOL-GLUCOSIDE	Leaf		9.0		--
17	FARNESOL	Plant				--
0	FAT	Seed		250000.0	-0.08105194719463996	--
0	FAT	Leaf	21666.0	138000.0	1.6247882242706593	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
0	FIBER(CRUDE)	Leaf		196000.0	1.790184111544934	--
0	FIBER(DIETARY)	Leaf		289000.0	-1.0282378241946064	--
7	FUMARIC-ACID	Plant				--
62	GALLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
0	GAMMA-CADINENE	Plant	2.0	14.0	-0.45984857009077795	--
0	GAMMA-CADINENE	Leaf Essent. Oil				--
0	GAMMA-MAALIENE	Plant				--
11	GAMMA-TERPINENE	Leaf	15.0	140.0	-0.1019870841807531	--
11	GAMMA-TERPINENE	Et		4000.0		--
11	GAMMA-TERPINENE	Leaf Essent. Oil		3000.0	-0.6853547696905973	--
3	GENKWANIN	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
35	GERANIOL	Plant				Stitt, Paul. Why George should eat broccoli.
0	GERMANICOL	Plant				--
5	GLUTAMINE	Plant				--
12	GLYCINE	Plant				Stitt, Paul. Why George should eat broccoli.
7	HISPIDULIN	Leaf				--
0	HORMINONE	Root				--
2	HUMULENE	Essential Oil		17900.0	-1.0	--
2	HUMULENE	Leaf Essent. Oil				--
0	HYDROXY-ROYLEANONE	Plant				--
6	IRON	Leaf	2.4	15.0	-0.8825570778618611	--
7	ISOBORNEOL	Essential Oil		3800.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	ISOBORNEOL	Leaf Essent. Oil		28000.0	-1.0	--
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	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.
0	ISOBORNEOL-ACETATE	Essential Oil		33700.0	1.0	--
1	ISOCARYOPHYLLENE	Plant				--
1	ISOROSMANOL	Shoot		57.0		--
0	KILOCALORIES	Leaf		3420.0	0.6478563559445962	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	LABIATIC-ACID	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	LEDENE	Plant				--
0	LEDOL	Leaf Essent. Oil		3000.0	-1.0	--
60	LIMONENE	Plant	39.0	2380.0	0.9769131249982739	--
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	--
0	LINALOL	Plant	0.0	3500.0	0.3590366860587444	--
53	LINALOOL	Et		11000.0		--
53	LINALOOL	Leaf Essent. Oil	4000.0	46600.0	-0.40077393425160296	--
53	LINALOOL	Plant	0.0	3500.0	-0.1908197582561713	--
53	LINALOOL	Essential Oil	1700.0	5000.0	-0.560725569158283	--
0	LINALOOL-ACETATE	Leaf Essent. Oil	2000.0	34900.0	1.6339378873531796	--
0	LINALOOL-ACETATE	Essential Oil	2000.0	216000.0	1.9636083246350857	--
0	LINALOOL-ACETATE	Et		10000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	LINALYL-ACETATE	Plant	0.0	6048.0	2.330313404492723	--
27	LINOLEIC-ACID	Seed		73000.0	-0.29236236831545726	--
27	LINOLEIC-ACID	Fruit Essent. Oil				--
0	LINOLENIC-ACID	Seed	42000.0	86750.0	0.9345778796061399	--
0	LINOLENIC-ACID	Fruit Essent. Oil				--
78	LUTEOLIN	Leaf				--
78	LUTEOLIN	Shoot				--
7	LUTEOLIN-7-GLUCOSIDE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	LUTEOLIN-7-GLYCOSIDE	Root				--
0	LUTEOLIN-7-GLYCOSIDE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
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.
0	LUTEOLIN-7-O-BETA-D-GLUCOSIDE	Plant				Stitt, Paul. Why George should eat broccoli.
0	LUTEOLIN-7-O-GLUCURONIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
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		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	--
22	MYRCENE	Et		8000.0	-1.0	--
2	MYRTENOL	Leaf Essent. Oil		2000.0		--
0	N-TRIACONTANE	Plant				--
4	NEPETIN	Plant				--
39	NIACIN	Leaf	10.0	62.0	-0.4318167758906651	--
0	NICOTINIC-ACID-AMIDE	Plant		5000.0		--
0	O-METHYL-CARNOSIC-ACID	Shoot		17.0		--
0	OLEAN-12-EN-28-OIC-ACID	Shoot		86.0		--
64	OLEANOLIC-ACID	Stem		400.0	1.0	--
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.
0	P-CYMEN-8-OL	Plant				--
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	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.
11	PANTOTHENIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
24	PECTIN	Shoot				--
0	PECTOLINAMARIGENIN	Plant				Stitt, Paul. Why George should eat broccoli.
4	PHELLANDRENE	Essential Oil		20000.0		--
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.
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.)
0	PICROSALVIN	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 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	--
0	PLANTEOSE	Seed				--
2	POMOLIC-ACID	Leaf		3.0	-1.0	--
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	--
0	POTASSIUM-NITRATE	Plant				--
0	PRISTANE	Leaf		56.0		--
0	PROTEIN	Seed		180000.0	-0.4785438804290316	--
0	PROTEIN	Leaf	18055.0	115000.0	-0.9661229417649582	--
0	RESIN	Plant	50000.0	60000.0	-0.5271561735476993	--
15	RIBOFLAVIN	Leaf	0.6	3.6	-0.16098657500422545	--
1	ROSMADIAL	Resin, Exudate, Sap		6000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	ROSMANOL	Plant				Stitt, Paul. Why George should eat broccoli.
5	ROSMANOL	Resin, Exudate, Sap				--
5	ROSMANOL	Shoot		11.0		--
0	ROSMANOL-7-ETHYL-ETHER	Shoot		144.0		--
1	ROSMANOL-9-ETHYL-ETHER	Shoot		144.0		--
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				--
57	ROSMARINIC-ACID	Shoot	2000.0	5800.0	-0.5832582116490932	--
0	ROYLEANONE	Root		20300.0		--
5	SABINENE	Leaf Essent. Oil		2000.0	-0.6066700271910461	--
5	SABINENE	Essential Oil		1200.0	-0.5875917391877868	--
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	SABINOL	Leaf	85.0	476.0	0.31621378249351945	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	SABINYL-ACETATE	Plant	110.0	616.0		--
0	SACCHAROPINE	Shoot		1.6	-0.7071067811865464	--
0	SAFFICINOLIDE	Shoot	35.0	57.0		--
0	SAGEONE	Shoot	22.0	73.0		--
0	SAGEQUINONE-METHIDE-A	Shoot		207.0		--
0	SAGERINIC-ACID	Plant		1300.0		--
34	SALICYLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
0	SALVIANOLIC-ACID-K	Plant		5760.0		--
0	SALVIATANNIN	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SALVIGENIN	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	SALVIGENIN	Shoot				--
0	SALVIGENIN-7-O-GLUCURONIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
3	SALVIN	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
3	SALVIN-MONOMETHYL-ETHER	Leaf				--
3	SALVIOL	Essential Oil				--
0	SAPONIN	Plant				--
60	SELENIUM	Leaf				--
0	SELIN-11-EN-4-OL	Leaf Essent. Oil		54000.0		--
0	SELINA-5,11-DIENE	Plant				--
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	--
0	SPATHULENOL	Leaf Essent. Oil				--
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	--
0	TANNINS	Leaf	785.0	10000.0	-1.0854284522770363	--
23	TERPINEN-4-OL	Leaf Essent. Oil	2000.0	3000.0	-0.523716551964413	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
23	TERPINEN-4-OL	Essential Oil		4500.0	-0.5734207195469667	--
23	TERPINEN-4-OL	Leaf	10.0	1120.0	0.29918716656064637	--
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.
0	THIAMINE	Leaf	1.3	8.2	0.7312289774690919	--
0	THUJOL-ACETATE	Essential Oil		1300.0		--
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.
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	THUJONE	Et		457000.0		--
17	THUJONE	Essential Oil	451300.0	531000.0	1.0	--
71	THYMOL	Essential Oil				--
71	THYMOL	Leaf				--
4	TIN	Leaf	1.3	8.0	-0.9124295958448216	--
0	TRANS-3-HEXENAL	Plant				--
0	TRANS-ALLO-OCIMENE	Plant				--
0	TRANS-BETA-OCIMENE	Leaf Essent. Oil				--
0	TRANS-OCIMENE	Plant				--
2	TRANS-PINOCARVEOL	Leaf Essent. Oil				--
0	TRANS-SABINENE-HYDRATE	Leaf Essent. Oil		2000.0	-1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	TRANS-SABINOL	Leaf Essent. Oil				--
0	TRANS-SABINOL	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	TRANS-SALVENE	Essential Oil		800.0		--
0	TRICYCLEN	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.
0	TRICYCLEN	Leaf Essent. Oil		3000.0	-1.0	--
8	TYROSINE	Plant				Stitt, Paul. Why George should eat broccoli.
0	URS-12-EN-28-OIC-ACID	Leaf		14.0		--
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				--
0	VALERANONE	Leaf Essent. Oil				--
24	VANILLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
1	VIRIDIFLOROL	Leaf				--
1	VIRIDIFLOROL	Essential Oil				--
0	WATER	Leaf		843000.0	0.1764219759131201	--
0	WAX	Plant				--
77	ZINC	Leaf	1.0	5.9	-0.4905596892021207	--