

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Origanum majorana*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
112	ASCORBIC-ACID	Plant	514.0	555.0	-0.4633944303261279	USDA's Ag Handbook 8 and sequelae)
102	CAFFEIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
102	CAFFEIC-ACID	Leaf		14100.0	1.2401706840629567	--
102	CAFFEIC-ACID	Shoot				--
89	URSOLIC-ACID	Plant	500.0	2100.0	-0.695295811066768	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
87	RUTIN	Shoot				--
77	CHLOROGENIC-ACID	Shoot				--
77	ZINC	Plant	32.0	43.0	-0.09018412071860993	--
76	EUGENOL	Plant	200.0	2000.0	0.46992531158530604	--
76	EUGENOL	Leaf Essent. Oil		255000.0	-0.34777061356900674	--
71	THYMOL	Essential Oil	15000.0	40000.0	-0.930874809378824	--
71	THYMOL	Shoot Essent. Oil		115500.0	1.9615538252670992	--
65	MAGNESIUM	Plant	3300.0	3900.0	-0.0516230386408005	USDA's Ag Handbook 8 and sequelae)
64	OLEANOLIC-ACID	Plant		4700.0	0.19004070814741195	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
63	MENTHOL	Essential Oil				--
60	LIMONENE	Essential Oil		38000.0	-0.5183422055574805	--
60	LIMONENE	Plant	18.0	1710.0	0.5651398458031535	--
60	LIMONENE	Leaf Essent. Oil		24000.0	-0.5721355904683862	--
57	ROSMARINIC-ACID	Inflorescence		33000.0	-0.13649164081487425	--
57	ROSMARINIC-ACID	Shoot		9400.0	-0.4142658927809455	--
57	ROSMARINIC-ACID	Plant		33000.0	0.281534733255827	Fitoterapia No.62: 166.
53	CITRAL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
53	LINALOOL	Essential Oil		7000.0	-0.5517579885648786	--
53	LINALOOL	Plant	99.0	7965.0	0.4132286080067176	--
53	LINALOOL	Shoot		164100.0	5.787049323750151	--
53	BETA-CAROTENE	Plant	48.0	52.0	-0.44555296413975976	USDA's Ag Handbook 8 and sequelae)
47	BETA-SITOSTEROL	Plant	520.0	540.0	-0.002824127733764179	--
39	NIACIN	Plant	41.0	44.0	-0.45847508395560455	USDA's Ag Handbook 8 and sequelae)
37	CARVACROL	Plant	1092.0	10920.0	0.6439962127754266	--
37	CARVACROL	Essential Oil	388800.0	795000.0	1.956448823344398	--
36	ANETHOLE	Essential Oil				--
35	BORNEOL	Plant				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
35	GERANIOL	Essential Oil		0.0	-0.677218689998221	--
35	TANNIN	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
35	GERANIOL	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
32	HYDROQUINONE	Shoot				--
32	HYDROQUINONE	Plant				--
31	CARYOPHYLLENE	Essential Oil		61000.0	0.37737527199565624	--
31	CARYOPHYLLENE	Plant	52.0	1307.0	1.1553486678162894	--
31	THIAMIN	Plant		3.0	-0.3909910138264638	USDA's Ag Handbook 8 and sequelae)
28	ALPHA-PINENE	Plant	15.0	86.0	-0.42061428285892105	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
28	ALPHA-PINENE	Essential Oil		19000.0	-0.39287982164920143	--
28	CALCIUM	Plant	17925.0	23625.0	1.073474951470644	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
27	LINOLEIC-ACID	Seed		10000.0	-0.8321526228533093	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
26	PHENOL	Plant	1431.0	8204.0	1.0	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
25	P-COUMARIC-ACID	Leaf		1100.0	-0.06115839551859982	--
23	ALPHA-TERPINEOL	Essential Oil		7000.0	-0.4630448703246903	--
23	ALPHA-TERPINEOL	Leaf Essent. Oil		49000.0	0.12538106410891894	--
23	TERPINEN-4-OL	Leaf	135.0	1530.0	0.5332933928836353	--
23	TERPINEN-4-OL	Plant	1365.0	13650.0	5.665014759682814	--
23	TERPINEN-4-OL	Essential Oil		103000.0	0.3836938468472445	--
23	TERPINEN-4-OL	Leaf Essent. Oil		310000.0	2.081229334325422	--
23	TERPINEN-4-OL	Shoot Essent. Oil		176700.0	1.412151043457717	--
22	MYRCENE	Essential Oil				--
22	MYRCENE	Plant	18.0	103.0	-0.36294107421133504	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
19	CARVONE	Essential Oil		27000.0	-0.7525161257485199	--
19	CARVONE	Plant	12.0	69.0	-0.42182429771324575	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
18	VITEXIN	Shoot				--
18	OLEIC-ACID	Seed		8000.0	-0.9133355142467426	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
16	P-CYMENE	Plant	21.0	210.0	-0.3655894027588645	--
16	P-CYMENE	Essential Oil		47000.0	-0.2453610155054874	--
16	P-CYMENE	Leaf Essent. Oil		20000.0	-0.4814765484301064	--
15	FIBER	Plant	170170.0	220600.0	-0.016312721496673874	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	ARBUTIN	Shoot				--
15	RIBOFLAVIN	Plant		3.0	-0.5861819139119265	USDA's Ag Handbook 8 and sequelae)
15	ARBUTIN	Leaf				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
14	POTASSIUM	Plant	14500.0	17225.0	-0.31886329834759486	USDA's Ag Handbook 8 and sequelae)
14	MANGANESE	Plant		54.0	-0.30787688494994525	USDA's Ag Handbook 8 and sequelae)
13	ALPHA-TERPINENE	Leaf	138.0	1620.0	0.5247481960598754	--
13	ALPHA-TERPINENE	Essential Oil		68000.0	1.1298113026643404	--
13	DIOSMETIN	Shoot				--
13	BETA-PINENE	Plant	6.0	34.0	-0.3987756455135756	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	ALPHA-TERPINENE	Plant	183.0	1830.0	2.256141022146814	--
13	ALPHA-TERPINENE	Leaf Essent. Oil		20000.0	0.9980633895203395	--
13	BETA-PINENE	Essential Oil		4000.0	-0.6415683948649324	--
12	ESTRAGOLE	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
12	STIGMASTEROL	Plant	50.0	55.0	-0.7296625889468641	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
12	COPPER	Plant		11.0	-0.33406963620245544	USDA's Ag Handbook 8 and sequelae)
11	GAMMA-TERPINENE	Essential Oil	48000.0	213000.0	2.0863713351738005	--
11	GAMMA-TERPINENE	Leaf Essent. Oil		180000.0	1.627787588377096	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
11	ALPHA-PHELLANDRENE	Plant	18.0	103.0	-0.4516907541435066	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	ALPHA-PHELLANDRENE	Essential Oil		26000.0	-0.08979419499208481	--
11	GAMMA-TERPINENE	Leaf	210.0	2370.0	4.197708389548963	--
9	TERPINOLENE	Leaf	50.0	600.0	0.5322296849470326	--
9	TERPINOLENE	Essential Oil		20000.0	-0.2455444370688689	--
9	TERPINOLENE	Plant	75.0	430.0	3.057637791806235	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	TRANS-ANETHOLE	Plant	8.0	43.0	-0.45493255526565674	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	DELTA-3-CARENE	Plant				--
7	LUTEOLIN-7-GLUCOSIDE	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
7	LINALYL-ACETATE	Plant	3.0	3030.0	0.8790079353067117	--
6	METHYL-CHAVICOL	Plant	96.0	550.0	-0.9033588179021271	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
6	IRON	Plant	750.0	975.0	0.4098917877276588	USDA's Ag Handbook 8 and sequelae)
5	SABINENE	Essential Oil		82000.0	-0.015057370464564934	--
5	SABINENE	Leaf Essent. Oil		30000.0	-0.13554261008120452	--
5	NERYL-ACETATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	SABINENE	Plant	75.0	7500.0	4.99614301661853	--
5	GERANYL-ACETATE	Plant	12.0	120.0	-0.4229146637825368	--
4	ORIENTIN	Shoot				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	PHOSPHORUS	Plant	2670.0	3725.0	0.06551800424758951	USDA's Ag Handbook 8 and sequelae)
4	COSMOSIIN	Shoot				--
4	COSMOSIIN	Pollen Or Spore				--
4	CADINENE	Plant				--
4	BORON	Plant	28.0	48.0	-0.3285060001497114	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).
3	CYNAROSIDE	Shoot				--
3	BETA-PHELLANDRENE	Plant	27.0	155.0	0.6528644248365976	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	CHAVICOL	Plant	138.0	791.0	1.414213562373095	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	BETA-PHELLANDRENE	Essential Oil		14000.0	0.06102018933373759	--
2	CAMPESTEROL	Plant		30.0	-0.5969128791852656	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
2	PHYTOSTEROLS	Plant	600.0	650.0	-0.8083557786797939	USDA's Ag Handbook 8 and sequelae)
2	OCIMENE	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	ALPHA-HUMULENE	Essential Oil				--
2	ALPHA-HUMULENE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	ETHYL-LAURATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	OLEIC-ACID-ETHYL-ESTER	Essential Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	SODIUM	Plant	675.0	935.0	-0.25231992508556245	USDA's Ag Handbook 8 and sequelae)
1	LABIATIC-ACID	Plant				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
1	ETHYL-PALMITATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	PALMITIC-ACID-ETHYL-ESTER	Essential Oil		12000.0		--
1	ETHYL-OLEATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	ETHYL-MYRISTATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	LAURIC-ACID-ETHYL-ESTER	Essential Oil				--
1	ETHYL-MYRISTATE	Essential Oil				--
0	PROTEIN	Plant	121450.0	143100.0	-0.2488413430316014	--
0	ETHYL-LINILENATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	APIGENIN-7-GLUCOSIDE	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	LUTEOLIN-7-O-BETA-D-DIGLUCOSIDE	Pollen Or Spore				--
0	CIS-SABINENE-HYDRATE	Leaf Essent. Oil	20000.0	580000.0		--
0	STEARIC-ACID-ETHYL-ESTER	Essential Oil				--
0	1-ETHOXY-P-MENTH-2-ENE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BICYCLOGERMACRENE	Essential Oil		27000.0	1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	URSOLIC-ACID-II	Plant		1200.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	EO	Essential Oil				--
0	1,8-CINEOL	Leaf Essent. Oil		75000.0	-0.39968922610284335	--
0	TERPINENOL	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	GAMMA-ELEMENE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BICYCLOGERMACRENE	Plant	12.0	69.0	-0.6425880627184439	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-THUJENE	Plant	15.0	1100.0	0.10728911049715678	--
0	VANILLIC-ACID-4-BETA-D-GLUCOSIDE	Leaf				--
0	LINOLENIC-ACID-ETHYL-ESTER	Essential Oil				--
0	CIS-PIPERITOL	Essential Oil		0.0	-1.0	--
0	LUSITANICOSIDE	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	CIS-P-MENTH-2-EN-1-OL	Plant	60.0	344.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	SALICYLIC-ACID-2-BETA-D-GLUCOSIDE	Leaf				--
0	GERANIOL-ACETATE	Essential Oil		27000.0		--
0	URSOLIC-ACID-I	Plant		4700.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DIOSMETIN-7-O-BETA-GLUCURONIDE	Pollen Or Spore				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TERPINENE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PLANTEOSE	Seed				--
0	ETHYL-CAPRATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-TERPINYL-ACETATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-Z-P-MENTHEN-1-OL	Essential Oil		61000.0		--
0	LINOLEIC-ACID-ETHYL-ESTER	Essential Oil				--
0	CIS-P-MENTH-2-ENOL	Leaf Essent. Oil		30000.0		--
0	LINOLENIC-ACID	Seed		27500.0	-0.09978029895951895	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CIS-4-ETHOXY-THUJANE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TERPINEN-4-YL-ACETATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	FAT	Plant	8000.0	77950.0	0.3824473420028041	USDA's Ag Handbook 8 and sequelae)
0	TRANS-SABINENE-HYDRATE-METHYL-ETHER	Leaf Essent. Oil		60000.0		--
0	LINALOOL-ACETATE	Essential Oil		34000.0	-0.3272680541058478	--
0	CIS-4-ETHOXY-THUJANE	Essential Oil		52000.0		--
0	3-BETA-HYDROXYURS-12-EN-28-OIC-ACID-3-O-BETA-D-GLUCOPYRANOSYL-(1->4)-O-BETA-D-XYLOPYRANOSIDE	Stem		13000.0		--
0	CIS-3-ETHOXY-P-MENTH-1-ENE	Plant				--
0	TRANS-SABINENE-HYDRATE	Plant	30.0	1850.0	3.431164061315594	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	NEROL-ACETATE	Essential Oil				--
0	EO	Plant	3000.0	30000.0	1.539818214457512	--
0	TRANS-SABINENE-HYDRATE	Essential Oil		51000.0	1.0	--
0	CIS-3-ETHOXY-1-P-MENTHENE	Essential Oil		2000.0		--
0	TRANS-PIPERITOL	Plant	9.0	52.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ETHYL-TRANSHEXADECANOATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BETA-FARNESENE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	N-TRIACONTANE	Plant		182000.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DIOSMETIN-7-GLUCOSIDE	Leaf				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	TERPINEN-4-OL-METHYL-ETHER	Leaf Essent. Oil		20000.0		--
0	TRANS-SABINENE-HYDRATE	Leaf Essent. Oil		60000.0	1.0	--
0	D-LINALOOL	Plant	918.0	5263.0	1.3717619314396152	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	GAMMA-ELEMENE	Essential Oil				--
0	TRANS-P-MENTH-2-EN-1-OL	Plant	52.0	301.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	LINALOL	Plant	99.0	568.0	-0.3038061677841181	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
0	METHYL-ARBUTIN	Plant				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ETHYL-STEARATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BETA-CARYOPHYLLENE	Plant	35.0	750.0	0.12906156273708783	--
0	MURWAOSIDE	Leaf		5025.0		--
0	DINATIN-7-GLUCOSIDE	Leaf				--
0	TERPINEN-4-OL-ACETATE	Essential Oil		61000.0	1.0	--
0	ALPHA-HYDROXYDIHYDROCAFFEIC ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TRANS-PIPERITOL	Essential Oil		0.0		--
0	BETA-FARNESENE	Essential Oil				--
0	PENTOSANS	Plant	70000.0	76800.0	-1.0044263136260358	--
0	CARBOHYDRATES	Plant	605600.0	654050.0	-0.11813185716958748	USDA's Ag Handbook 8 and sequelae)
0	FIXED-OIL	Seed				--
0	LEDENE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	SAPONIN	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	1-ETHOXY-2-P-MENTHENE	Essential Oil		7000.0		--
0	METHYL-ARBUTIN	Shoot				--
0	CIS-Z-P-MENTHEN-1-OL	Essential Oil		2000.0		--
0	TRANS-P-MENTH-2-ENOL	Leaf Essent. Oil		50000.0		--
0	ALPHA-ELEMENE	Essential Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TRANS-4-ETHOXY-THUJANE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ASH	Plant	96900.0	123300.0	0.0413244786252859	--
0	(+)-MENTHA-1,8-DIENE	Essential Oil				--
0	CIS-SABINENE-HYDRATE-METHYL-ETHER	Leaf Essent. Oil		20000.0		--
0	D-LINALOL	Plant	918.0	5263.0	1.0	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ALPHA-COPAENE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-4-ETHOXY-THUJANE	Essential Oil		213000.0		--
0	LEDENE	Essential Oil				--
0	P-CYMEN-8-OL	Plant	8.0	43.0	-0.06112505014632677	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ETHYL-TRANS-HEXADECENOATE	Essential Oil				--
0	ALPHA-COPAENE	Essential Oil				--
0	TRANS-3-ETHOXY-P-MENTH-1-ENE	Plant				--
0	(+)-CARAN-TRANS-4-OL	Essential Oil				--
0	MENTHA-1,3-DIENE	Essential Oil				--
0	CIS-SABINENE-HYDRATE-ACETATE	Leaf Essent. Oil		110000.0		--
0	DIOSMETIN-7-GLUCURONIDE	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	MAJARONIN	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	D-ALPHA-TERPINEOL	Plant	27.0	826.0	1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALLO-AROMADENDRENE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-3-ETHOXY-1-P-MENTHENE	Essential Oil		2000.0		--
0	ALPHA-THUJENE	Essential Oil		19000.0	-0.27796616080745823	--
0	ALLO-AROMADENDRENE	Essential Oil				--
0	ETHYL-LINOLEATE	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	(+)-CAR-3-ENE	Essential Oil				--
0	MAJORANIN	Plant				--
0	CIS-SABINENE-HYDRATE	Essential Oil		75000.0	1.0	--
0	CIS-SABINENE-HYDRATE	Leaf	100.0	7965.0	3.162122330899287	--
0	SYRINGIC-ACID-4-BETA-D-GLUCOSIDE	Leaf				--
0	4-ETHOXY-P-MENTH-1-ENE	Plant				--
0	HYDROQUINONE-MONOMETHYL-ETHER	Shoot				--
0	ALPHA-TERPINYL-ACETATE	Essential Oil				--
0	WATER	Plant	74920.0	77880.0	-2.966987461751347	USDA's Ag Handbook 8 and sequelae)
0	P-CYMEN-8-OL	Essential Oil		0.0		--
0	ETHYL-CAPRATE	Essential Oil		61000.0		--
0	1,8-CINEOL	Essential Oil				--