

**Dr. Duke's Phytochemical and Ethnobotanical Database**

**Chemicals Found in *Mentha spicata***

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	(+)-PIPERITENONE-OXIDE	Leaf	5700	14250	1.5322768307102888	
4	(+)-PULEGONE	Leaf	--	8300	1.6080152922980508	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
4	(+)-PULEGONE	Essential Oil	--	30000	-1	
4	(-)-MENTHOL	Leaf	8	200	-1.1506920842172557	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
4	(-)-MENTHOL	Essential Oil	--	--		
2	(-)-MENTHONE	Leaf	438	10950	1.1365180077826589	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	(-)-PIPERITONE	Leaf	24	600	-1	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
67	1,8-CINEOLE	Plant	50	9375	2.069816196893691	
2	2-METHOXY-4-VINYL-PHENOL	Shoot	--	--		
6	ACETALDEHYDE	Essential Oil	--	--		
16	ACETIC-ACID	Plant	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
16	ACETIC-ACID	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ACETONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
3	ACETONE	Essential Oil	--	--		
6	ACETOPHENONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
6	ACETOPHENONE	Essential Oil	--	--		
3	ALANINE	Leaf	1710	11835	-0.1770443857416287	USDA's Ag Handbook 8 and sequelae)
2	ALPHA-HUMULENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	ALPHA-HUMULENE	Essential Oil	--	--		
28	ALPHA-PINENE	Leaf	5	375	-0.20019781806808187	
28	ALPHA-PINENE	Shoot	--	--		
28	ALPHA-PINENE	Essential Oil	2000	10000	-0.47207505752571344	
23	ALPHA-TERPINEOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
23	ALPHA-TERPINEOL	Essential Oil	--	--		
101	APIGENIN	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	ARGININE	Leaf	1510	10450	-0.6013081392776	USDA's Ag Handbook 8 and sequelae)

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	ARGININE	Essential Oil	--	--		
112	ASCORBIC-ACID	Leaf	135	9200	0.4097226710061515	USDA's Ag Handbook 8 and sequelae)
3	ASPARTIC-ACID	Leaf	3880	26850	-0.011481891557127021	USDA's Ag Handbook 8 and sequelae)
24	BENZALDEHYDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
24	BENZALDEHYDE	Essential Oil	--	--		
9	BENZYL-ALCOHOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
9	BENZYL-ALCOHOL	Essential Oil	--	--		
1	BENZYL-ISOBUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	BENZYL-ISOBUTYRATE	Essential Oil	--	--		
53	BETA-CAROTENE	Leaf	2	10	-0.37582350890658794	
5	BETA-ELEMENE	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	BETA-ELEMENE	Essential Oil	--	--		
13	BETA-IONONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
13	BETA-IONONE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	BETA-MYRCENE	Leaf	700	1750	1.9887942996764614	
13	BETA-PINENE	Leaf	9	3425	4.622716517508347	
13	BETA-PINENE	Shoot	--	--		
13	BETA-PINENE	Essential Oil	3000	137000	2.3116107782282604	
47	BETA-SITOSTEROL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
47	BETA-SITOSTEROL	Shoot	--	--		
35	BORNEOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
35	BORNEOL	Essential Oil	--	--		
6	BUTYRIC-ACID	Plant	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
28	CALCIUM	Plant	1990	11760	0.019318935182891635	
9	CAMPHENE	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	CAMPHENE	Essential Oil	--	--		
1	CAPROIC-ACID	Plant	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
5	CAPRYLIC-ACID	Plant	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
37	CARVACROL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
37	CARVACROL	Essential Oil	--	--		
19	CARVONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
19	CARVONE	Plant	495	20000	3.111093181560533	
19	CARVONE	Shoot	--	--		
31	CARYOPHYLLENE	Leaf	3	1950	0.42006860721265904	
31	CARYOPHYLLENE	Essential Oil	--	12000	-0.5431805211356492	
1	COPAENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	COPAENE	Essential Oil	--	--		
12	COPPER	Plant	1	2	0.33037825900684764	
2	CYSTINE	Leaf	360	2490	-0.3589486756977957	USDA's Ag Handbook 8 and sequelae)
9	DELTA-CADINENE	Leaf	2	38	-0.2986545777457765	
9	DELTA-CADINENE	Essential Oil	--	--		
2	DIACETYL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	DIACETYL	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	DIHYDROCARVEOL	Leaf	13	325	0.47480379501964887	
2	DIHYDROCARVEOL	Essential Oil	--	29000		
2	DIHYDROCARVEOL	Shoot	--	--		
1	DIHYDROCARVYL-ACETATE	Leaf	16	400		
1	DIHYDROCARVYL-ACETATE	Essential Oil	--	--		
2	DIMETHYL-SULFIDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	DIMETHYL-SULFIDE	Essential Oil	--	--		
1	DIMETHYL-SULFOXIDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	DIMETHYL-SULFOXIDE	Essential Oil	--	--		
13	DIOSMETIN	Plant	--	--		
34	DIOSMIN	Leaf	--	--		
34	DIOSMIN	Shoot	--	--		
2	ELEMOL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
24	ETHANOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
24	ETHANOL	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	ETHYL-ISOBUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	ETHYL-ISOBUTYRATE	Essential Oil	--	--		
76	EUGENOL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
76	EUGENOL	Shoot	--	--		
76	EUGENOL	Essential Oil	--	--		
2	FARNESENE	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	FARNESENE	Essential Oil	--	--		
17	FARNESOL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
15	FIBER	Plant	20000	118000	-0.7748720151690661	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
6	FURFURAL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
6	FURFURAL	Essential Oil	--	--		
11	GAMMA-TERPINENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
11	GAMMA-TERPINENE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
35	GERANIOL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	GERANYL-ACETONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	GERANYL-ACETONE	Essential Oil	--	--		
8	GLUTAMIC-ACID	Leaf	3580	24775	-0.7109553135717208	USDA's Ag Handbook 8 and sequelae)
12	GLYCINE	Leaf	1580	10935	0.13782403206680577	USDA's Ag Handbook 8 and sequelae)
31	HESPERIDIN	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	HISTIDINE	Leaf	660	4565	-0.4071595786304595	USDA's Ag Handbook 8 and sequelae)
6	IRON	Plant	156	918	0.3427665650697393	
2	ISOBORNYL-ACETATE	Leaf	11	275	1	
1	ISOBUTYRALDEHYDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	ISOBUTYRALDEHYDE	Essential Oil	--	--		
1	ISOCARYOPHYLLENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	ISOCARYOPHYLLENE	Essential Oil	--	--		
3	ISOLEUCINE	Leaf	1350	9340	-0.7017350095262209	



Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ISOMENTHONE	Leaf	50	125	-0.6385368793120907	
3	ISOMENTHONE	Essential Oil	--	--		
4	ISOPINOCAMPHONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
4	ISOPINOCAMPHONE	Essential Oil	--	--		
8	JASMONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
8	JASMONE	Essential Oil	--	--		
2	LEUCINE	Leaf	2470	17095	0.08951789523130926	
60	LIMONENE	Plant	7	9075	5.091572982030111	
60	LIMONENE	Shoot	--	--		
60	LIMONENE	Essential Oil	19000	363000	1.3523167562121183	
53	LINALOOL	Plant	11	9375	2.6501691984113913	
53	LINALOOL	Essential Oil	--	--		
27	LINOLEIC-ACID	Leaf	540	3735	-0.7513073604494908	USDA's Ag Handbook 8 and sequelae)
78	LUTEOLIN	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	LYSINE	Leaf	1410	9760	-0.7075161040041896	
65	MAGNESIUM	Leaf	630	4360	0.09045438563126122	USDA's Ag Handbook 8 and sequelae)

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	MANGANESE	Leaf	11	77	-0.3318765828407499	USDA's Ag Handbook 8 and sequelae)
5	MENTHOFURAN	Essential Oil	--	--		
63	MENTHOL	Leaf	--	375	-0.5643139655866684	
63	MENTHOL	Leaf	8	200	-0.5846188722355842	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
63	MENTHOL	Essential Oil	--	15000	-1	
30	MENTHONE	Leaf	4	1300	-0.4760604980459572	
30	MENTHONE	Leaf	438	10950	0.7462042221217	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
30	MENTHONE	Essential Oil	--	--		
2	METHANOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	METHANOL	Essential Oil	--	--		
15	METHIONINE	Leaf	460	3180	0.07735883691925587	
2	METHYL-2-METHYL-BUTYRATE	Essential Oil	--	--		
13	MUFA	Leaf	250	1730	-0.5597108284870816	USDA's Ag Handbook 8 and sequelae)
22	MYRCENE	Plant	21	1350	1.007083201682519	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
22	MYRCENE	Shoot	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
22	MYRCENE	Essential Oil	--	--		
6	MYRISTIC-ACID	Leaf	40	275	-0.5522849047688323	USDA's Ag Handbook 8 and sequelae)
5	MYRTENAL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
5	MYRTENAL	Essential Oil	--	--		
2	MYRTENOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	MYRTENOL	Essential Oil	--	--		
1	MYRTENYL-ACETATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	MYRTENYL-ACETATE	Essential Oil	--	--		
1	N-BUTYRALDEHYDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	N-BUTYRALDEHYDE	Essential Oil	--	--		
1	N-VALERALDEHYDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	N-VALERALDEHYDE	Essential Oil	--	--		
2	NEOMENTHOL	Essential Oil	--	--		
5	NERYL-ACETATE	Leaf	27	675	0.6307295317468979	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
39	NIACIN	Plant	4	24	-0.16418216541690328	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
64	OLEANOLIC-ACID	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
64	OLEANOLIC-ACID	Shoot	--	--		
18	OLEIC-ACID	Leaf	220	1520	-0.4583001506895111	USDA's Ag Handbook 8 and sequelae)
9	OXALIC-ACID	Leaf	38	38	-0.4750154161977811	Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
16	P-CYMENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
16	P-CYMENE	Essential Oil	--	2000	-0.6168805810969309	
13	PALMITIC-ACID	Leaf	1370	9480	-0.20652718082803365	USDA's Ag Handbook 8 and sequelae)
2	PALMITOLEIC-ACID	Leaf	20	140	-0.49196167844647537	USDA's Ag Handbook 8 and sequelae)
11	PANTOTHENIC-ACID	Leaf	2.5	17	-0.5115750290946652	USDA's Ag Handbook 8 and sequelae)
11	PERILLALDEHYDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
14	PERILLYL-ALCOHOL	Leaf	1	25	1	
14	PERILLYL-ALCOHOL	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	PHENETHYL-ALCOHOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
6	PHENETHYL-ALCOHOL	Essential Oil	--	--		
2	PHENYL-ACETALDEHYDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	PHENYL-ACETALDEHYDE	Essential Oil	--	--		
7	PHENYLALANINE	Leaf	1680	11625	0.3481392714633915	
4	PHOSPHORUS	Plant	600	4706	0.5369248860408372	
2	PHYTOSTEROLS	Leaf	100	690	-0.5982404044893082	USDA's Ag Handbook 8 and sequelae)
12	PINENE	Essential Oil	--	--		
4	PINOCAMPHONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
4	PINOCAMPHONE	Essential Oil	--	--		
1	PINOCARVONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	PINOCARVONE	Essential Oil	--	--		
3	PIPERITENONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
3	PIPERITENONE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	PIPERITENONE	Shoot	--	--		
2	PIPERITENONE-OXIDE	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
2	PIPERITENONE-OXIDE	Essential Oil	--	--		
7	PIPERITONE	Leaf	24	600	-0.04108594242379066	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
7	PIPERITONE	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
7	PIPERITONE	Essential Oil	--	--		
2	POMOLIC-ACID	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	POMOLIC-ACID	Shoot	--	--		
14	POTASSIUM	Leaf	4580	32000	0.07312186100168522	USDA's Ag Handbook 8 and sequelae)
2	PROPIONALDEHYDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	PROPIONALDEHYDE	Essential Oil	--	--		
4	PUFA	Leaf	3940	27265	1.0561663737218558	USDA's Ag Handbook 8 and sequelae)
28	PULEGONE	Leaf	1	475	-0.6220305328114489	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
28	PULEGONE	Essential Oil	1000	19000	-1.0797832656873603	

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15	RIBOFLAVIN	Plant	1	5	0.04099174223160336	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
57	ROSMARINIC-ACID	Leaf	--	6300	-0.16904224493663075	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
57	ROSMARINIC-ACID	Plant	43000	43000	0.8895001040740586	Fitoterapia No.62: 166.
57	ROSMARINIC-ACID	Shoot	5900	5900	-0.5785639805694225	
57	ROSMARINIC-ACID	Inflorescence	--	43000	0.3023882331879371	
5	SABINENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
5	SABINENE	Essential Oil	--	--		
1	SERINE	Leaf	1280	8860	-0.42939704308828536	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Leaf	300	2075	-0.2787506258109787	USDA's Ag Handbook 8 and sequelae)
8	STEARIC-ACID	Leaf	200	1385	0.28059560458984517	USDA's Ag Handbook 8 and sequelae)
12	STIGMASTEROL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
12	STIGMASTEROL	Shoot	--	--		
23	TERPINEN-4-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
23	TERPINEN-4-OL	Essential Oil	--	--		

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9	TERPINOLENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
9	TERPINOLENE	Essential Oil	--	--		
31	THIAMIN	Plant	1	3	-0.3909910138264638	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
31	THIAMIN	Leaf	0.8	3	-0.688703330240956	
4	THREONINE	Leaf	1350	9340	-0.15065942518421008	
71	THYMOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
71	THYMOL	Essential Oil	--	--		
1	TOLUENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	TOLUENE	Essential Oil	--	--		
1	TRANS-CARVEOL	Leaf	2	50		
1	TRANS-CARVEOL	Essential Oil	--	--		
1	TRANS-CARVEOL	Shoot	--	--		
29	TRYPTOPHAN	Leaf	500	3460	0.4632240516049009	
8	TYROSINE	Leaf	990	6850	-0.32144859638053946	USDA's Ag Handbook 8 and sequelae)



Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
89	URSOLIC-ACID	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
89	URSOLIC-ACID	Shoot	--	--		
89	URSOLIC-ACID	Plant	--	--		
9	VALERIC-ACID	Plant	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
3	VALINE	Leaf	1640	11350	-0.3764818769201724	
28	VANILLIN	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
28	VANILLIN	Essential Oil	--	--		
5	VERBENONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
5	VERBENONE	Essential Oil	--	--		
1	VIRIDIFLOROL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
1	VIRIDIFLOROL	Essential Oil	--	--		
77	ZINC	Leaf	11	75	-0.06649179301145117	USDA's Ag Handbook 8 and sequelae)