

Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in *Mentha spicata*

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	(+)-DIHYDROCARVONE	Leaf	550	13750		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	(+)-ISOMENTHONE	Leaf	23	575	-1.1806897850952103	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	(+)-LINALOOL	Essential Oil	--	863000		
0	(+)-MENTHOFURAN	Leaf	4	100	-0.6542082025768665	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	(+)-NEOMENTHOL	Leaf	1	25	-1.3911934652185358	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
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.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	(+)-PULEGONE	Essential Oil	--	30000	-1	
0	(-)-CARVONE	Leaf	6200	6900	0.5667200668065975	
0	(-)-CARVONE	Essential Oil	--	--		
0	(-)-DIHYDROCARVONE	Leaf	900	2250		
0	(-)-ISOMENTHONE	Essential Oil	--	--		
0	(-)-LIMONENE	Plant	--	--		
0	(-)-LIMONENE	Leaf	700	2000	1.2705511342858904	
0	(-)-LIMONENE	Essential Oil	--	--		
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.
0	1,8-CINEOL	Essential Oil	--	3000	-1.1812015201236299	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	1,8-CINEOL	Shoot	--	--		
67	1,8-CINEOLE	Plant	50	9375	2.069816196893691	
0	1-HYDROXY-2-ACETOXY-P-MENTH-8(9)-ENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	2-AMINO-ADIPIC-ACID	Shoot	1.6	1.6		
0	2-AMYL-FURAN	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	2-AMYL-FURAN	Essential Oil	--	--		
0	2-CARBOXYARABINITOL	Leaf	--	--		
0	2-ETHYL-FURAN	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	2-ETHYL-FURAN	Essential Oil	--	--		
2	2-METHOXY-4-VINYL-PHENOL	Shoot	--	--		
0	2-METHYL-2-METHYL-BUTYRATE	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2-METHYL-BUTAN-1-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	2-METHYL-BUTAN-1-OL	Essential Oil	--	--		
0	2-METHYL-BUTYL-2-METHYL-BUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	2-METHYL-BUTYL-2-METHYL-BUTYRATE	Essential Oil	--	--		
0	2-METHYL-BUTYL-ISOVALERATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	2-METHYL-BUTYL-ISOVALERATE	Essential Oil	--	--		
0	2-METHYL-BUTYRALDEHYDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	2-METHYL-BUTYRALDEHYDE	Essential Oil	--	--		
0	2-METHYL-ETHYL-BUTYRATE	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2-METHYL-PROPAN-1-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	2-METHYL-PROPAN-1-OL	Essential Oil	--	--		
0	3(5',5'-DIMETHYL-TETRAHYDROFURAN-2'-YL)-BUT-CIS-2-EN-1-OL	Leaf	3	75		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	3(5',5'-DIMETHYL-TETRAHYDROFURAN-2'-YL)-BUT-CIS-2-EN-1-OL	Essential Oil	--	3000	1.4142135187385312	
0	3-METHYL-BUTAN-1-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	3-METHYL-BUTAN-1-OL	Essential Oil	--	--		
0	3-METHYL-BUTYRALDEHYDE	Essential Oil	--	--		
0	4-HYDROXY-PIPERITONE	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	4-HYDROXY-PIPERITONE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	5-HYDROXY-CARVONE	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	5-HYDROXY-CARVONE	Essential Oil	--	--		
0	5-METHYL-HEX-2-EN-1-AL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	5-METHYL-HEX-2-EN-1-AL	Essential Oil	--	--		
0	8-HYDROXY-9-ACETOXY-MENTH-1-ENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
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	--	--		
0	ACETOIN	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ACETOIN	Essential Oil	--	--		
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)
0	ALPHA-FENCHENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	ALPHA-FENCHENE	Essential Oil	--	--		
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	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-LIMONENE-1,2-OXIDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	ALPHA-LIMONENE-1,2-OXIDE	Essential Oil	--	--		
0	ALPHA-METHYL-P-METHYL-STYRENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	ALPHA-METHYL-P-METHYL-STYRENE	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	--	--		
0	ALPHA-THUJENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	ALPHA-THUJENE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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)
14	ARGININE	Essential Oil	--	--		
112	ASCORBIC-ACID	Leaf	135	9200	0.4097226710061515	USDA's Ag Handbook 8 and sequelae)
0	ASH	Plant	16000	94000	0.35178839232492654	
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	--	--		
0	BENZYL-2-METHYL-BUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BENZYL-2-METHYL-BUTYRATE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	--	--		
0	BETA-BOURBONENE	Leaf	2	50	-0.2572628070428749	
0	BETA-BOURBONENE	Essential Oil	--	--		
53	BETA-CAROTENE	Leaf	2	10	-0.37582350890658794	
0	BETA-CARYOPHYLLENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BETA-CARYOPHYLLENE	Essential Oil	--	--		
0	BETA-CARYOPHYLLENE-OXIDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BETA-CARYOPHYLLENE-OXIDE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	BETA-ELEMENE	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	BETA-ELEMENE	Essential Oil	--	--		
0	BETA-HUMULENE	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
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	--	--		
0	BETA-LIMONENE-1,2-OXIDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BETA-LIMONENE-1,2-OXIDE	Essential Oil	--	--		
2	BETA-MYRCENE	Leaf	700	1750	1.9887942996764614	
0	BETA-OCIMENE	Essential Oil	--	20000		
0	BETA-PHENETHYL-2-METHYL-BUTYRATE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BETA-PHENETHYL-ALCOHOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BETA-PHENETHYL-ALCOHOL	Essential Oil	--	--		
0	BETA-PHENETHYL-BUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BETA-PHENETHYL-BUTYRATE	Essential Oil	--	--		
0	BETA-PHENETHYL-ISOBUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BETA-PHENETHYL-ISOBUTYRATE	Essential Oil	--	--		
0	BETA-PHENETHYL-ISOVALERATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BETA-PHENETHYL-ISOVALERATE	Essential Oil	--	--		
0	BETA-PHENETHYL-METHYL-BUTYRATE	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BETA-PHENETHYL-METHYL-ETHER	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BETA-PHENETHYL-METHYL-ETHER	Essential Oil	--	--		
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	--	--		
0	BICYCLOELEMENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	BICYCLOELEMENE	Essential Oil	--	--		
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	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	BUTYRIC-ACID	Plant	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	CADINOL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
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.
0	CAR-3-ENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CAR-3-ENE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CARBOHYDRATE	Plant	80000	588300	0.15598903570269707	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	CARBOHYDRATES	Plant	80000	588300	-0.541481373280153	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
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	--	--		
0	CARVONE-10-ACETATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CARVONE-10-ACETATE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CARVONE-8,9-OXIDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CARVONE-8,9-OXIDE	Essential Oil	--	--		
0	CARVYL-6,7-OXIDE-ACETATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CARVYL-6,7-OXIDE-ACETATE	Essential Oil	--	--		
31	CARYOPHYLLENE	Leaf	3	1950	0.42006860721265904	
31	CARYOPHYLLENE	Essential Oil	--	12000	-0.5431805211356492	
0	CHLOROFORM	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CHLOROFORM	Essential Oil	--	--		
0	CHLOROPHYLL-A	Leaf	2755	2755		
0	CHLOROPHYLL-B	Leaf	1299	1299		
0	CINEOL	Essential Oil	10000	48000	-0.6663815998555231	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CINEOLE	Leaf	10	1500	-0.6688040789870409	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CIS-2,5-DIETHYL-TETRAHYDROFURAN	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CIS-2,5-DIETHYL-TETRAHYDROFURAN	Essential Oil	--	--		
0	CIS-BETA-COPAENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CIS-BETA-COPAENE	Essential Oil	--	--		
0	CIS-CARVEOL	Leaf	4	100	1	
0	CIS-CARVEOL	Essential Oil	--	--		
0	CIS-CARVEOL	Shoot	--	--		
0	CIS-CARVEOL-ACETATE	Essential Oil	--	--		
0	CIS-CARVONE-OXIDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CIS-CARVONE-OXIDE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CIS-CARVYL-ACETATE	Leaf	18	450		
0	CIS-CARVYL-FORMATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	CIS-CARVYL-FORMATE	Essential Oil	--	--		
0	CIS-DIHYDROCARVONE	Essential Oil	--	--		
0	CIS-JASMONE	Leaf	1	25	-0.3741484173923501	
0	CIS-JASMONE	Essential Oil	--	--		
0	CIS-SABINENE-HYDRATE	Essential Oil	--	--		
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)
0	DECAN-1-OL	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DECAN-1-OL	Essential Oil	--	--		
0	DECAN-3-OL	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	DECAN-3-OL	Essential Oil	--	--		
0	DEHYDROCARVACROL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	DEHYDROCARVACROL	Essential Oil	--	--		
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	--	--		
0	DIHYDRO-ISOCARVONE	Essential Oil	--	6500		
2	DIHYDROCARVEOL	Leaf	13	325	0.47480379501964887	
2	DIHYDROCARVEOL	Essential Oil	--	29000		
2	DIHYDROCARVEOL	Shoot	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DIHYDROCARVONE	Leaf	18	4475	1	
0	DIHYDROCARVONE	Essential Oil	--	6500	-0.49934378715306904	
0	DIHYDROCARVONE	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	--	--		
0	DIOSMETIN-7-GLUCOSIDE	Plant	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
0	DIOSMETIN-7-O-BETA-D-GLUCURONIDE	Leaf	--	--		
34	DIOSMIN	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
34	DIOSMIN	Shoot	--	--		
2	ELEMOL	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	EO	Leaf	1000	25000	1.1843761113015423	
0	EPIBULGARENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	EPIBULGARENE	Essential Oil	--	--		
0	EPIMUROLENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	EPIMUROLENE	Essential Oil	--	--		
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	--	--		
0	ETHYL-2-METHYL-BUTYRATE	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	--	--		
0	ETHYL-N-VALERATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	ETHYL-N-VALERATE	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.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	FAT	Plant	6000	35294	-0.01792101144299427	
15	FIBER	Plant	20000	118000	-0.7748720151690661	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	FOLATE	Leaf	1	7	0.1690308509457033	
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	--	--		
0	GAMMA-CADINENE	Leaf	2	33	-0.11733883554584716	
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	--	--		
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.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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)
0	HEPT-CIS-4-EN-1-AL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEPT-CIS-4-EN-1-AL	Essential Oil	--	--		
0	HEPT-TRANS-2-EN-1-AL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEPT-TRANS-2-EN-1-AL	Essential Oil	--	--		
0	HEPTAN-1-AL	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEPTAN-1-AL	Essential Oil	--	--		
0	HEPTAN-1-YL-2-METHYL-BUTYRATE	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	HEPTAN-1-YL-2-METHYL-BUTYRATE	Essential Oil	--	--		
0	HEPTAN-1-YL-ISOVALERATE	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEPTAN-1-YL-ISOVALERATE	Essential Oil	--	--		
0	HEPTAN-3-OL	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEPTAN-3-OL	Essential Oil	--	--		
0	HEPTAN-3-ONE	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEPTAN-3-ONE	Essential Oil	--	--		
31	HESPERIDIN	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	HEX-CIS-3-EN-1-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	HEX-CIS-3-EN-1-OL	Essential Oil	--	--		
0	HEX-CIS-3-EN-1-OL-2-METHYL-BUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEX-CIS-3-EN-1-OL-2-METHYL-BUTYRATE	Essential Oil	--	--		
0	HEX-CIS-3-EN-1-OL-ACETATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEX-CIS-3-EN-1-OL-ACETATE	Essential Oil	--	--		
0	HEX-CIS-3-EN-1-OL-ISOBUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEX-CIS-3-EN-1-OL-ISOBUTYRATE	Essential Oil	--	--		
0	HEX-CIS-3-EN-1-OL-ISOVALERATE	Leaf	2	50		
0	HEX-CIS-3-EN-1-OL-ISOVALERATE	Essential Oil	--	--		
0	HEX-CIS-3-EN-1-OL-PHENYLACETATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEX-CIS-3-EN-1-OL-PHENYLACETATE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	HEX-TRANS-2-EN-1-AL	Essential Oil	--	--		
0	HEX-TRANS-2-EN-1-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEX-TRANS-2-EN-1-OL	Essential Oil	--	--		
0	HEX-TRANS-2-EN-1-OL-ACETATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEX-TRANS-2-EN-1-OL-ACETATE	Essential Oil	--	--		
0	HEX-TRANS-3-EN-1-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEX-TRANS-3-EN-1-OL	Essential Oil	--	--		
0	HEXAHYDRO-FARNESYL-ACTONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEXAHYDROFARNESYL-ACETONE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	HEXAN-1-AL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEXAN-1-AL	Essential Oil	--	--		
0	HEXAN-1-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEXAN-1-OL	Essential Oil	--	--		
0	HEXAN-1-YL-2-ISOVALERATE	Leaf	--	--		
0	HEXAN-1-YL-2-METHYL-BUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEXAN-1-YL-2-METHYL-BUTYRATE	Essential Oil	--	--		
0	HEXAN-1-YL-ISOVALERATE	Essential Oil	--	--		
0	HEXAN-1-YL-PHENYLACETATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEXAN-1-YL-PHENYLACETATE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	HISTIDINE	Leaf	660	4565	-0.4071595786304595	USDA's Ag Handbook 8 and sequelae)
6	IRON	Plant	156	918	0.3427665650697393	
0	ISOAMYL-2-METHYL-BUTYRATE	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	ISOAMYL-2-METHYL-BUTYRATE	Essential Oil	--	--		
0	ISOAMYL-ISOVALERATE	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	ISOAMYL-ISOVALERATE	Essential Oil	--	--		
2	ISOBORNYL-ACETATE	Leaf	11	275	1	
0	ISOBUTYL-2-METHYL-BUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	ISOBUTYL-2-METHYL-BUTYRATE	Essential Oil	--	--		
1	ISOBUTYRALDEHYDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	--	--		
0	ISODIHYDROCARVONE	Leaf	75	1875		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
3	ISOLEUCINE	Leaf	1350	9340	-0.7017350095262209	
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	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	KILOCALORIES	Leaf	440	3045	0.043389152673180095	USDA's Ag Handbook 8 and sequelae)
0	L-PHELLANDRENE	Plant	--	--		
0	L-PHELLANDRENE	Leaf	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	LAVANDULYL-BUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	LAVANDULYL-BUTYRATE	Essential Oil	--	--		
2	LEUCINE	Leaf	2470	17095	0.08951789523130926	
0	LF	Plant	--	--		
60	LIMONENE	Plant	7	9075	5.091572982030111	
60	LIMONENE	Shoot	--	--		
60	LIMONENE	Essential Oil	19000	363000	1.3523167562121183	
0	LIMONENENE-8,9-OXIDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	LIMONENENE-8,9-OXIDE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	LINALOL	Plant	11	9375	1.6872091848059536	
53	LINALOOL	Plant	11	9375	2.6501691984113913	
53	LINALOOL	Essential Oil	--	--		
0	LINALOOL-ACETATE	Essential Oil	--	1000	-0.7426467381632698	
27	LINOLEIC-ACID	Leaf	540	3735	-0.7513073604494908	USDA's Ag Handbook 8 and sequelae)
0	LINOLENIC-ACID	Leaf	3380	23390	-0.2348536372710458	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.
0	LUTEOLIN-3'-O-BETA-D-GLUCURONIDE	Leaf	--	--		
0	LUTEOLIN-7-O-BETA-D-GLUCURONIDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
4	LYSINE	Leaf	1410	9760	-0.7075161040041896	
65	MAGNESIUM	Leaf	630	4360	0.09045438563126122	USDA's Ag Handbook 8 and sequelae)
14	MANGANESE	Leaf	11	77	-0.3318765828407499	USDA's Ag Handbook 8 and sequelae)
0	MENTH-1-OL-ACETATE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	
0	MENTHOL-ACETATE	Leaf	--	375	-1	
0	MENTHOL-ACETATE	Essential Oil	--	15000		
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	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	METHYL-HEPTENONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	METHYL-HEPTENONE	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	--	--		
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.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	--	--		
0	NEO-ISOPULEGOL	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	NEO-ISOPULEGOL	Essential Oil	--	--		
0	NEODIHYDROCARVEOL	Leaf	3	75	1	
0	NEODIHYDROCARVEOL	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	NEODIHYDROCARVYL-ACETATE	Essential Oil	--	--		
2	NEOMENTHOL	Essential Oil	--	--		
5	NERYL-ACETATE	Leaf	27	675	0.6307295317468979	
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.
0	NONAN-1-AL	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	NONAN-1-AL	Essential Oil	--	--		
0	NONAN-3-OL	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	NONAN-3-OL	Essential Oil	--	--		
0	OCT-1-EN-3-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	OCT-1-EN-3-OL	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	OCTAN-1-AL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	OCTAN-1-AL	Essential Oil	--	--		
0	OCTAN-1-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	OCTAN-1-OL	Essential Oil	--	--		
0	OCTAN-1-OL-2-METHYL-BUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	OCTAN-1-OL-2-METHYL-BUTYRATE	Essential Oil	--	--		
0	OCTAN-1-OL-FORMATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	OCTAN-1-OL-FORMATE	Essential Oil	--	--		
0	OCTAN-3-OL	Leaf	4	100	-0.4336112824306008	
0	OCTAN-3-OL	Essential Oil	--	5000	-1	
0	OCTAN-3-OL-ACETATE	Leaf	2	25		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	OCTAN-3-OL-ACETATE	Essential Oil	--	--		
0	OCTAN-3-ONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	OCTAN-3-ONE	Essential Oil	--	--		
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.
0	P-CYMEN-8-OL	Leaf	--	--		
16	P-CYMENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
16	P-CYMENE	Essential Oil	--	2000	-0.6168805810969309	
0	P-CYMENE-8-OL	Essential Oil	--	--		
0	P-CYMOL	Leaf	3	75	-0.5148723081234048	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	P-CYMOL	Essential Oil	--	3000		
0	P-MENTH-1(7)-EN-8-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	P-MENTH-1(7)-EN-8-OL	Essential Oil	--	--		
0	P-MENTH-1,8-DIEN-4-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	P-MENTH-1-EN-9-YL-ACETATE	Essential Oil	--	--		
0	P-MENTH-CIS-1(7),8-DIEN-2-OL	Leaf	--	--		
0	P-MENTH-CIS-2-EN-1-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	P-MENTH-CIS-2-EN-1-OL	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	P-MENTH-TRANS-1(7),8-DIEN-2-OL	Leaf	--	--		
0	P-MENTH-TRANS-1(7),8-DIEN-2-YL-ACETATE	Leaf	--	--		
0	P-MENTH-TRANS-2,8-DIEN-1-OL	Leaf	--	--		
0	P-MENTHA-1,8-DIEN-4-OL	Essential Oil	--	--		
0	P-MENTHA-CIS-1(7)-8-DIEN-2-OL	Essential Oil	--	--		
0	P-MENTHA-CIS-2-8-DIEN-1-OL	Essential Oil	--	--		
0	P-MENTHA-TRANS-1(7)-8-DIEN-2-OL	Essential Oil	--	--		
0	P-MENTHA-TRANS-1(7)-8-DIEN-2-YL-ACETATE	Essential Oil	--	--		
0	P-MENTHA-TRANS-2-8-DIEN-1-OL	Essential Oil	--	--		
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)
0	PENT-1-EN-3-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	PENT-1-EN-3-OL	Essential Oil	--	--		
0	PENT-CIS-1-EN-3-OL	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PENT-CIS-2-EN-1-OL	Essential Oil	--	--		
0	PENTAN-1-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	PENTAN-1-OL	Essential Oil	--	--		
0	PERILLA-ALDEHYDE	Essential Oil	--	--		
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	--	--		
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	--	--		
0	PHENLYALANINE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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)
0	PIN-TRANS-3-EN-2-OL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	PIN-TRANS-3-EN-2-OL	Essential Oil	--	--		
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	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PINOCARVEOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	PINOCARVEOL	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	--	--		
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.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	PIPERITONE	Plant	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
7	PIPERITONE	Essential Oil	--	--		
0	PIPERITONE-OXIDE	Leaf	35	875	-1.3957962433408342	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	PIPERITONE-OXIDE	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)
0	PROLINE	Leaf	1350	9345	-0.27514619222062164	USDA's Ag Handbook 8 and sequelae)
0	PROPAN-1-YL-2-METHYL-BUTYRATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	PROPAN-1-YL-2-METHYL-BUTYRATE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	--	--		
0	PROTEIN	Plant	32900	282240	0.8914067568935523	
0	PSI-LIMONENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	PSI-LIMONENE	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	
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.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	
0	ROTUNDIFOLINE	Plant	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
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	--	--		
0	SABINENE-HYDRATE	Leaf	4	300	1.367894009277969	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	SABINENE-HYDRATE	Essential Oil	4000	12000		
0	SACCHAROPINE	Shoot	1.6	1.6	-0.7071067811865464	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SALICYLIC-ACID-METHYL-ESTER	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	SALICYLIC-ACID-METHYL-ESTER	Essential Oil	--	--		
1	SERINE	Leaf	1280	8860	-0.42939704308828536	USDA's Ag Handbook 8 and sequelae)
0	SFA	Leaf	1910	13220	-0.04932916069434147	USDA's Ag Handbook 8 and sequelae)
0	SITOSTEROL-GLYCOSIDE	Plant	--	--		
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	--	--		
0	TANNINS	Leaf	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	--	--		
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	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TIGLALDEHYDE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	TIGLALDEHYDE	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	--	--		
0	TRANS-BETA-COPAENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	TRANS-BETA-COPAENE	Essential Oil	--	--		
0	TRANS-BETA-OCIMENE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	TRANS-BETA-OCIMENE	Essential Oil	--	--		
1	TRANS-CARVEOL	Leaf	2	50		
1	TRANS-CARVEOL	Essential Oil	--	--		
1	TRANS-CARVEOL	Shoot	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TRANS-CARVEOL-ACETATE	Essential Oil	--	--		
0	TRANS-CARVONE-OXIDE	Essential Oil	--	--		
0	TRANS-CARVYL-ACETATE	Leaf	3	75	1	
0	TRANS-CARVYL-FORMATE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	TRANS-CARVYL-FORMATE	Essential Oil	--	--		
0	TRANS-DIHYDROCARVONE	Essential Oil	--	--		
0	TRANS-JASMONE	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	TRANS-JASMONE	Essential Oil	--	--		
0	TRANS-SABINENE-HYDRATE	Essential Oil	--	--		
0	TRANS-VERBENOL	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	TRANS-VERBENOL	Essential Oil	--	--		
29	TRYPTOPHAN	Leaf	500	3460	0.4632240516049009	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	TYROSINE	Leaf	990	6850	-0.32144859638053946	USDA's Ag Handbook 8 and sequelae)
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	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	--	--		
0	VIT-B-6	Leaf	1.5	10	-0.5119230867007493	
0	WATER	Plant	--	830000	0.2528779846519487	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	WATER	Leaf	--	830000	0.23628975921912068	
77	ZINC	Leaf	11	75	-0.06649179301145117	USDA's Ag Handbook 8 and sequelae)