

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Cuminum cyminum

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	IRON	Seed	155.0	748.0	2.774806205372537	--
28	CALCIUM	Fruit	9310.0	15511.0	2.6894460586450313	--
16	P-CYMENE	Seed	810.0	12639.0	2.5658784542716937	--
1	SODIUM	Seed	1680.0	2028.0	2.5035675487310334	--
6	IRON	Fruit	155.0	748.0	2.4396262164214058	--
28	CALCIUM	Seed	9310.0	15511.0	2.087195698631959	--
7	SALICYLATES	Seed		450.0	2.0742057734588757	--
11	GAMMA-TERPINENE	Seed Essent. Oil		135100.0	1.7741924046473574	--
11	GAMMA-TERPINENE	Fruit	174.0	11800.0	1.5201342086172545	--
0	FAT	Fruit	134000.0	270380.0	1.423888601701519	--
0	CIS-SABINENE-HYDRATE	Fruit		207.0	1.414213562373095	--
17	FARNESOL	Fruit		834.0	1.413989751209689	--
11	PERILLALDEHYDE	Fruit		336.0	1.4139019929570265	--
11	PERILLALDEHYDE	Seed		336.0	1.3948390326025877	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	PROTEIN	Fruit	166000.0	212000.0	1.374076643190184	--
11	GAMMA-TERPINENE	Seed	174.0	11800.0	1.3004692670430558	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	DELTA-3-CARENE	Seed		270.0	1.2977713690461004	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
20	CHOLINE	Seed		3003.0	1.2524025343894258	--
0	ASH	Seed	58000.0	89000.0	1.2367887262181747	--
4	BORON	Seed	34.0	50.0	1.2280232969498832	Betting on Boron, Unpublished draft by J. A. Duke on file at USDA, draft and papers relating to boron percentages.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).
16	P-CYMENE	Seed Essent. Oil		57400.0	1.1697457846107164	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	CARYOPHYLLENE-OXIDE	Seed		435.0	1.097913908269028	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
16	P-CYMENE	Fruit	810.0	12639.0	1.093379153357459	--
0	BETA-FARNESENE	Seed	220.0	440.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BETA-FARNESENE	Fruit	220.0	440.0	1.0	--
10	CUMINALDEHYDE	Fruit	4000.0	16000.0	1.0	--
0	ASH	Fruit	58000.0	89000.0	0.8373581639684924	--
77	ZINC	Fruit	41.0	58.0	0.8333322427894736	--
11	ALPHA-PHELLANDRENE	Seed Essent. Oil		8400.0	0.7805772238273097	--
4	PHOSPHORUS	Fruit	4900.0	5673.0	0.7462902843572051	--
14	POTASSIUM	Seed	17880.0	20916.0	0.7339716357950823	--
24	CHROMIUM	Fruit		8.4	0.6722150195358815	--
24	CHROMIUM	Seed		8.4	0.5412807345301005	--
77	ZINC	Seed	41.0	58.0	0.3653236164034136	--
3	NICKEL	Fruit		3.6	0.31537310910976213	--
7	ANISALDEHYDE	Fruit		837.0	0.3007182102385518	--
18	OLEIC-ACID	Seed		154000.0	0.28687020919917255	--
14	POTASSIUM	Fruit	17880.0	20916.0	0.26537600660314625	--
12	COPPER	Fruit	9.0	16.0	0.24757908207921683	--
31	THIAMIN	Fruit	6.0	7.0	0.21342198396383905	--
4	BORON	Fruit	34.0	50.0	0.20278384568897864	--
0	CARBOHYDRATES	Seed	442000.0	570000.0	0.18518872608740047	--
39	NIACIN	Seed	46.0	49.0	0.18301568158571277	--
15	RIBOFLAVIN	Seed	3.0	4.0	0.18234587940570884	--
0	EO	Fruit	20000.0	50000.0	0.1518886748253213	--
13	BETA-PINENE	Seed	48.0	6600.0	0.11443413980397102	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	COPPER	Seed	9.0	16.0	0.10753302142111128	--
31	THIAMIN	Seed	6.0	7.0	0.09921569102976133	--
4	PHOSPHORUS	Seed	4900.0	5673.0	0.0844694836529903	--
0	EO	Seed	20000.0	50000.0	0.08159531399912463	--
53	BETA-CAROTENE	Seed	5.0	8.0	0.07076552722792115	--
0	FAT	Seed	134000.0	270380.0	0.02629680271488368	--
15	FIBER	Seed	105000.0	136000.0	0.009642624567051585	--
1	SODIUM	Fruit	1680.0	2028.0	0.008362175941227531	--
15	FIBER	Fruit	105000.0	136000.0	-0.05356506176852561	--
0	PETROSELINIC-ACID	Seed		522000.0	-0.08234362953415873	--
13	BETA-PINENE	Fruit	48.0	6600.0	-0.08639391856372851	--
2	COBALT	Seed		2.2	-0.11052683130845588	--
0	ALPHA-P-DIMETHYL-STYRENE	Fruit		30.0	-0.11624763874381962	--
53	BETA-CAROTENE	Fruit	5.0	8.0	-0.1353367732684366	--
12	STIGMASTEROL	Seed		310.0	-0.13634492946832524	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
39	NIACIN	Fruit	46.0	49.0	-0.1563834722018048	--
53	LINALOOL	Seed	30.0	318.0	-0.1602566890671307	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	DELTA-3-CARENE	Fruit		270.0	-0.1615236669067504	--
23	ALPHA-TERPINEOL	Fruit	30.0	275.0	-0.18222634096235243	--
14	MANGANESE	Fruit	24.0	33.0	-0.18593979479616832	--
0	PROTEIN	Seed	166000.0	212000.0	-0.19388730833174384	--
19	ACETYL-CHOLINE	Seed		68.0	-0.21613518728808323	--
15	RIBOFLAVIN	Fruit	3.0	4.0	-0.21615825716438572	--
5	SABINENE	Fruit	30.0	1014.0	-0.217118135360517	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	NICKEL	Seed		3.6	-0.22040689220295698	--
14	MANGANESE	Seed	24.0	33.0	-0.25562914891156324	--
2	COBALT	Fruit		2.2	-0.268784847122832	--
112	ASCORBIC-ACID	Fruit	0.0	76.0	-0.27976355402626646	--
112	ASCORBIC-ACID	Seed	0.0	76.0	-0.2928301356509014	--
13	ALPHA-TERPINENE	Fruit		27.0	-0.3094025385841535	--
23	TERPINEN-4-OL	Fruit		30.0	-0.35380476892863855	--
22	MYRCENE	Fruit	36.0	120.0	-0.36584426066354236	--
31	CARYOPHYLLENE	Fruit	144.0	320.0	-0.38650624079902074	--
5	SABINENE	Seed	30.0	1014.0	-0.3944636041574373	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	BETA-PINENE	Seed Essent. Oil		60300.0	-0.4033073996580829	--
67	1,8-CINEOLE	Fruit	40.0	138.0	-0.4155160165966862	--
23	ALPHA-TERPINEOL	Seed	30.0	275.0	-0.4192681580586145	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	BETA-PHELLANDRENE	Fruit	90.0	279.0	-0.4243936628944281	--
0	TRANS-SABINENE-HYDRATE	Fruit		87.0	-0.43545971945575607	--
28	ALPHA-PINENE	Seed	9.0	330.0	-0.4681305937392061	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	SABINENE	Seed Essent. Oil		3200.0	-0.48390449587595435	--
13	ALPHA-TERPINENE	Seed		27.0	-0.49447014585831817	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	CARYOPHYLLENE-OXIDE	Fruit		435.0	-0.5007242267296801	--
47	BETA-SITOSTEROL	Seed		300.0	-0.5158539786189745	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	CAMPESTEROL	Seed		50.0	-0.5188689275444304	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
5	BETA-ELEMENE	Fruit		30.0	-0.5255615099967239	--
11	ALPHA-PHELLANDRENE	Fruit		60.0	-0.5463965854128641	--
53	LINALOOL	Seed Essent. Oil		300.0	-0.5568630458522826	--
2	PHYTOSTEROLS	Root		680.0	-0.5617667644397336	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
0	WATER	Seed		81000.0	-0.5625925943807273	--
0	ALPHA-THUJENE	Fruit		24.0	-0.5742881361044722	--
0	LINALOL	Fruit	30.0	318.0	-0.5850669501995082	--
6	BETA-BISABOLENE	Seed	60.0	360.0	-0.5964358465216921	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
6	BETA-BISABOLENE	Fruit	60.0	360.0	-0.6279289020524476	--
28	ALPHA-PINENE	Fruit	9.0	330.0	-0.6326269333262723	--
60	LIMONENE	Fruit	60.0	696.0	-0.6503856897192445	--
23	TERPINEN-4-OL	Seed Essent. Oil		1000.0	-0.656858499149851	--
22	MYRCENE	Seed Essent. Oil		5000.0	-0.6729231762483394	--
23	TERPINEN-4-OL	Seed		30.0	-0.6762665967069378	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
67	1,8-CINEOLE	Seed	40.0	138.0	-0.6912409465781895	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	COPAENE	Fruit		30.0	-0.7063409156616118	--
12	BORNYL-ACETATE	Fruit		36.0	-0.7126671869128719	--
60	LIMONENE	Seed	60.0	696.0	-0.7143557055167975	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
28	ALPHA-PINENE	Seed Essent. Oil		3000.0	-0.7212203254805465	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
71	THYMOL	Seed Essent. Oil		200.0	-0.730649211036064	--
23	ALPHA-TERPINEOL	Seed Essent. Oil		500.0	-0.7380690023576203	--
13	ALPHA-TERPINENE	Seed Essent. Oil		5000.0	-0.747287894378325	--
5	BETA-ELEMENE	Seed		30.0	-0.7668490032631218	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	TERPINOLENE	Seed Essent. Oil		400.0	-0.7791560503540546	--
60	LIMONENE	Seed Essent. Oil		2500.0	-0.8605696309526396	--
6	METHYL-CHAVICOL	Fruit		30.0	-0.9052787471318983	--
0	ALPHA-P-DIMETHYL-STYRENE	Seed		30.0	-0.9120291854009067	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	ALPHA-PHELLANDRENE	Seed		60.0	-0.9184826797367149	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
7	ANISALDEHYDE	Seed		837.0	-0.9438488054306591	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	BETA-PHELLANDRENE	Seed	90.0	279.0	-0.9915321681819333	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CIS-SABINENE-HYDRATE	Seed Essent. Oil		1500.0	-1.0	--
0	CAR-3-ENE	Seed Essent. Oil		200.0	-1.0	--
0	TRANS-SABINENE-HYDRATE	Seed		87.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	CYNAROSIDE	Seed		500.0	-1.0	--
0	TRANS-SABINENE-HYDRATE	Seed Essent. Oil		800.0	-1.0	--
10	CUMINALDEHYDE	Essential Oil		350000.0	-1.0	--
17	FARNESOL	Seed		834.0	-1.0	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	DILLAPIOLE	Seed		150.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	DAUCENE	Seed		90.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
31	CARYOPHYLLENE	Seed	144.0	320.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	DILLAPIOLE	Fruit		150.0	-1.0	--
1	CARVEOL	Seed		435.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
22	MYRCENE	Seed	36.0	120.0	-1.016190392064844	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
6	METHYL-CHAVICOL	Seed		30.0	-1.0272094750696692	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	BETA-PHELLANDRENE	Seed Essent. Oil		700.0	-1.0822902451231144	--
0	CARBOHYDRATES	Fruit	442000.0	570000.0	-1.1383877321758809	--
0	ALPHA-THUJENE	Seed		24.0	-1.1767496731268863	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	CAMPHENE	Seed Essent. Oil		400.0	-1.4910054033640832	--
0	WATER	Fruit		81000.0	-2.9983398493677664	--
7	PIPERITONE	Fruit		172.0		--
78	LUTEOLIN	Leaf				--
2	MYRTENOL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BETA-TERPINENE	Fruit		204.0		--
1	CUMENE	Seed				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	P-MENTHA-1,3-DIEN-7-AL	Essential Oil				--
0	DELTA-5,6-OCTADECENOIC-ACID	Fruit				--
0	APIGENIN-7-GLUCOSIDE	Fruit				--
0	P-MENTH-3-EN-7-AL	Seed Essent. Oil		4400.0		--
0	APIGETRIN	Seed				--
0	CIS-BETA-FARNESENE	Seed Essent. Oil		4500.0		--
0	BETA-TERPINENE	Seed		204.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	P-ISOPROPYLPHENOL	Seed Essent. Oil		800.0		--
0	APIGENIN-7-GLUCURONOSYL-GLUCOSIDE	Seed				--
0	DELTA-5,6-OCTADECENOIC-ACID	Seed				--
10	CUMINALDEHYDE	Seed	4000.0	16000.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	GUM	Fruit				--
7	DIPENTENE	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	DAUCENE	Fruit		90.0		--
0	APIGENIN-5-O-GLUCOSIDE	Seed				--
1	ISOCARYOPHYLLENE	Seed Essent. Oil		2800.0		--
2	MYRTENOL	Fruit				--
0	CIS-GAMMA-BISABOLENE	Fruit		30.0		--
0	RESIN	Fruit				--
0	PIPERITOL	Fruit		243.0		--
0	CUMINYL-ALCOHOL	Fruit	300.0	21660.0		--



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
35	TANNIN	Seed				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
12	BORNYL-ACETATE	Seed		36.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
16	P-CYMENE	Essential Oil				--
0	PIPERITOL	Seed		243.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	XANTHOPHYLL	Fruit				--
76	EUGENOL	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	METHYL-CINNAMATE	Seed		138.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CUMINYL-ALCOHOL	Seed	300.0	21660.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CUMINIC-ALCOHOL	Fruit				--
0	CIS-GAMMA-BISABOLENE	Seed		30.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	P-MENTHA-3-EN-7-OL	Seed	140.0	280.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	GAMMA-TERPINENE	Essential Oil				--
5	METHYL-CINNAMATE	Fruit		138.0		--
4	BENZYL-CINNAMATE	Seed		1341.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CRYPTONE	Seed				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PHELLANDRAL	Fruit				--
0	CUMINIC-ACID	Fruit		1.0		--
18	OLEIC-ACID	Seed Oil				--
0	P-MENTHA-1,3-DIEN-7-AL	Seed	3330.0	4560.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CUMINIC-ACID	Seed		1.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	CARVEOL	Fruit		435.0		--
0	TERPINOLENE-EPOXIDE	Seed		60.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	RESIN	Seed				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	OCTADECA-5,6-DIENOIC-ACID	Seed Oil				--
0	P-MENTHA-1,4-DIEN-7-AL	Seed	7080.0	7290.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
10	CUMINALDEHYDE	Seed Essent. Oil	205100.0	480000.0		--
2	TRANS-PINOCARVEOL	Seed		30.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	PETROSELINIC-ACID	Seed Oil				--
0	CIS-SABINENE-HYDRATE	Seed		207.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
76	EUGENOL	Fruit				--
4	BENZYL-CINNAMATE	Fruit		1341.0		--
1	COPAENE	Seed		30.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	P-MENTHA-3-EN-7-OL	Fruit	140.0	280.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	CUMENE	Fruit				--
0	APIGENIN-7-GLUCOSIDE	Seed				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
7	LUTEOLIN-7-GLUCOSIDE	Seed				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	TERPINOLENE-EPOXIDE	Fruit		60.0		--
7	PIPERITONE	Seed		172.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	LUTEOLIN-7-GLUCURONOSYL-GLUCOSIDE	Fruit				--
0	P-MENTHA-1,4-DIEN-7-AL	Seed Essent. Oil		319800.0		--
78	LUTEOLIN	Seed				--
3	XANTHOPHYLL	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CRYPTONE	Fruit				--
0	TRANS-ALPHA-BERGAMOTENE	Seed Essent. Oil		900.0		--
0	ALDEHYDES	Fruit	12000.0	30000.0		--
0	ALDEHYDES	Seed	12000.0	30000.0		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
18	MANNITOL	Seed				--
0	PELLANDRAL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	P-MENTHA-1,4-DIEN-7-AL	Fruit	7080.0	7290.0		--
1	CUMIN-ALCOHOL	Seed Essent. Oil		4200.0		--
7	LUTEOLIN-7-GLUCOSIDE	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	P-MENTHA-1,4-DIEN-7-AL	Essential Oil				--
0	GUM	Seed				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
7	DIPENTENE	Fruit				--
112	ASCORBIC-ACID	Tissue Culture				--
2	TRANS-PINOCARVEOL	Fruit		30.0		--
0	LUTEOLIN-7-GLUCURONOSYL-GLUCOSIDE	Seed				--
0	P-MENTHA-1,3-DIEN-7-AL	Fruit	3330.0	4560.0		--
35	TANNIN	Fruit				--
4	COSMOSIIN	Seed		1500.0		--
78	LUTEOLIN	Fruit				--
0	CUMINIC-ALCOHOL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	P-MENTHA-1,3-DIEN-7-AL	Seed Essent. Oil		60100.0		--
0	APIGENIN-7-GLUCURONOSYL-GLUCOSIDE	Fruit				--
4	APIIN	Seed				--