

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Carum carvi*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
19	CARVONE	Seed Essent. Oil	595300.0	900000.0	1.38528277461378	--
0	CARBOHYDRATES	Fruit	499000.0	554000.0	-1.2239479546663645	--
0	CARBOHYDRATES	Seed	300000.0	554000.0	0.12160149368264386	--
19	CARVONE	Essential Oil	264000.0	580000.0	1.456771501873754	--
60	LIMONENE	Essential Oil	250000.0	500000.0	2.140871457019611	--
0	PROTEIN	Seed	190521.0	400000.0	1.478470052739822	--
0	PROTEIN	Fruit	190521.0	220000.0	1.4813201219223062	--
0	FAT	Fruit	127000.0	176826.0	0.7093306748827288	--
15	FIBER	Fruit	112730.0	155640.0	0.13176741912032305	--
15	FIBER	Seed	112730.0	223000.0	0.6966094834523356	--
0	FAT	Seed	100000.0	180000.0	-0.44976698613804794	--
0	WATER	Seed	91880.0	155000.0	-0.27862372656365736	--
13	MUFA	Seed	71250.0	79085.0	-0.21948429390500326	Revised USDA data received 1993.
0	ASH	Fruit	56460.0	67620.0	0.28371563599880156	--
0	ASH	Seed	55000.0	67620.0	0.5937289975821403	--
18	OLEIC-ACID	Fruit	54400.0	95648.0	0.2564460151509538	--
0	PETROSELINIC-ACID	Seed	40000.0	354000.0	-0.8033510875816932	--
4	PUFA	Seed	32720.0	36320.0	-0.5293414540891105	Revised USDA data received 1993.
8	GLUTAMIC-ACID	Seed	31690.0	35175.0	-0.2758530020526007	Revised USDA data received 1993.
0	EO	Fruit	30000.0	70000.0	0.54062890380803	--
18	OLEIC-ACID	Seed	29000.0	241000.0	1.0020612909785875	--
3	ASPARTIC-ACID	Seed	20840.0	23130.0	0.048029804288976026	Revised USDA data received 1993.
27	LINOLEIC-ACID	Fruit	20300.0	46714.0	0.3036638054156712	--
0	EO	Seed	20000.0	82000.0	0.4861364448600147	--
27	LINOLEIC-ACID	Seed	19600.0	46714.0	-0.5175834259469172	--
12	GLYCINE	Seed	13220.0	14675.0	0.5382536999822551	Revised USDA data received 1993.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	POTASSIUM	Fruit	12902.0	15665.0	-0.19919899891978007	--
14	ARGININE	Seed	12520.0	13900.0	-0.45478768617160453	Revised USDA data received 1993.
2	LEUCINE	Seed	12180.0	13520.0	-0.3408978107463804	Revised USDA data received 1993.
19	CARVONE	Seed	10880.0	32640.0	0.5757430989637712	--
14	POTASSIUM	Seed	10810.0	15670.0	0.2726200242002285	--
3	VALINE	Seed	10370.0	11510.0	-0.061769047027664975	Revised USDA data received 1993.
4	LYSINE	Seed	10310.0	11445.0	-0.08853511037990262	Revised USDA data received 1993.
0	PHYTATE	Seed	10190.0	10900.0	-0.19448774169058122	--
1	SERINE	Seed	9460.0	10500.0	-0.014241088185932402	Revised USDA data received 1993.
0	PROLINE	Seed	9170.0	10180.0	-0.2270794734050652	Revised USDA data received 1993.
3	ALANINE	Seed	9140.0	10150.0	-0.0013229586167773184	Revised USDA data received 1993.
19	CARVONE	Fruit	9000.0	44310.0	1.99999975413892	--
2	(+)-CARVONE	Seed	9000.0	55760.0		--
7	PHENYLALANINE	Seed	8670.0	9625.0	-0.22873636959027158	Revised USDA data received 1993.
3	ISOLEUCINE	Seed	8260.0	9170.0	-0.16863241397137768	Revised USDA data received 1993.
60	LIMONENE	Fruit	7860.0	30180.0	3.5781164025182557	--
4	THREONINE	Seed	7560.0	8390.0	0.056493706448137275	Revised USDA data received 1993.
28	CALCIUM	Fruit	6426.0	8160.0	0.993126554897215	--
8	TYROSINE	Seed	6420.0	7125.0	-0.14274154462014257	Revised USDA data received 1993.
0	SFA	Seed	6200.0	6880.0	-0.5108368608268686	Revised USDA data received 1993.
4	PHOSPHORUS	Fruit	5680.0	6302.0	0.9373426112560593	--
4	PHOSPHORUS	Seed	5650.0	6580.0	0.3241524123754052	--
7	HISTIDINE	Seed	5500.0	6105.0	-0.005073065220825094	Revised USDA data received 1993.
4	CADINENE	Plant	3720.0	29760.0	1.4141020257548391	--
15	METHIONINE	Seed	3610.0	4005.0	-0.07999578248445874	Revised USDA data received 1993.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	KILOCALORIES	Seed	3330.0	3700.0	-0.9069114205711409	Revised USDA data received 1993.
2	CYSTINE	Seed	3290.0	3650.0	0.34786844092544134	Revised USDA data received 1993.
60	LIMONENE	Seed	3000.0	42000.0	2.245951109203175	--
65	MAGNESIUM	Fruit	2580.0	2863.0	0.3395434445319955	--
29	TRYPTOPHAN	Seed	2440.0	2710.0	-0.20976729388732002	Revised USDA data received 1993.
65	MAGNESIUM	Seed	2070.0	2950.0	0.0015393251037586135	--
13	PALMITIC-ACID	Fruit	2000.0	6658.0	-0.2618846307910205	--
13	PALMITIC-ACID	Seed	2000.0	9000.0	-0.5139018470842157	--
28	CALCIUM	Seed	1530.0	8160.0	0.7371261230888665	--
15	ALPHA-LINOLENIC-ACID	Seed	1500.0	1664.0	-0.29806400798854177	USDA's Ag Handbook 8 and sequelae)
15	ALPHA-LINOLENIC-ACID	Fruit	1500.0	1664.0	-0.39890612938011816	--
8	STEARIC-ACID	Plant	1100.0	1221.0	-0.31662981705011717	--
8	STEARIC-ACID	Seed	1000.0	1800.0	-0.5263361525324093	--
0	EICOSENOIC-ACID	Seed	1000.0	1800.0	-1.3117937762239429	--
2	PALMITOLEIC-ACID	Fruit	900.0	999.0	-0.16284284724499656	--
2	PALMITOLEIC-ACID	Seed	900.0	999.0	-0.27448704739952007	USDA's Ag Handbook 8 and sequelae)
0	LINOLENIC-ACID	Seed	600.0	4140.0	-0.5075880129054059	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
6	MYRISTIC-ACID	Seed	400.0	444.0	-0.29019087360930124	USDA's Ag Handbook 8 and sequelae)
6	MYRISTIC-ACID	Fruit	400.0	444.0	-0.24819764617872128	--
2	DIHYDROCARVEOL	Fruit	360.0	720.0		--
0	CIS-LIMONENE-EPOXIDE	Seed	300.0	900.0		--
13	BETA-PINENE	Fruit	270.0	600.0	-0.2786206877223514	--
11	GAMMA-TERPINENE	Plant	270.0	2215.0	0.3668556912256766	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DIHYDROCARVONE	Fruit	240.0	1500.0		--
0	DIHYDROCARVONE	Seed	240.0	1890.0	1.222391887709424	--
0	TRANS-1-CARVEOL	Seed	230.0	690.0		--
0	TRANS-LIMONENE-EPOXIDE	Seed	200.0	600.0		--
2	DIHYDROCARVEOL	Seed	200.0	780.0		--
22	MYRCENE	Fruit	180.0	1560.0	-0.14096760282697604	--
0	TRANS-DIHYDROCARVONE	Fruit	177.0	354.0	1.0	--
14	PERILLYL-ALCOHOL	Plant	160.0	1310.0	-1.0	--
1	SODIUM	Seed	149.0	340.0	-0.17599424618728202	--
1	SODIUM	Fruit	149.0	212.0	-0.16384706454945608	--
6	IRON	Seed	123.0	1200.0	4.874936682884126	--
6	IRON	Fruit	123.0	286.0	0.6069967345672661	--
23	TERPINEN-4-OL	Plant	120.0	985.0	0.14761831910973383	--
0	2,8-P-MENTHADIENE-1-OL	Seed	120.0	365.0		--
1	CARVEOL	Seed	120.0	3240.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	2,8-P-MENTHADIENE-6-OL	Seed	110.0	330.0		--
1	TRANS-CARVEOL	Seed	105.0	210.0	-1.0	--
3	CAPRIC-ACID	Seed	100.0	110.0	-0.5239374828451797	USDA's Ag Handbook 8 and sequelae)
7	LAURIC-ACID	Fruit	100.0	110.0	-0.44416811720185917	--
7	LAURIC-ACID	Seed	100.0	110.0	-0.511344659660987	USDA's Ag Handbook 8 and sequelae)
3	CAPRIC-ACID	Fruit	100.0	110.0	-0.6828803041071304	--
8	DELTA-3-CARENE	Fruit	90.0	180.0	-0.31208082478300797	--
8	DELTA-3-CARENE	Seed	90.0	180.0	-0.16222142113076254	--
0	CIS-2-CARVEOL	Seed	75.0	230.0		--
31	MYRISTICIN	Seed	60.0	985.0	-0.9148647060412254	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
31	MYRISTICIN	Fruit	60.0	420.0		--
0	CIS-LIMONENE-DIEPOXIDE	Seed	55.0	160.0		--
0	1-P-MENTHENE-6-AN-OL	Seed	50.0	155.0		--
0	LINALOL	Fruit	48.0	96.0	-0.6231721368623974	--
77	ZINC	Fruit	47.0	61.0	0.9235898750204936	--
77	ZINC	Seed	47.0	66.0	0.592445203168114	--
0	CARVYL-ACETATE	Seed	45.0	455.0		--
0	TRANS-LIMONENE-DIEPOXIDE	Seed	45.0	140.0		--
1	DIHYDROCARVYL-ACETATE	Fruit	45.0	90.0		--
1	DIHYDROCARVYL-ACETATE	Seed	45.0	455.0		--
28	ALPHA-PINENE	Fruit	42.0	540.0	-0.577800039343025	--
0	1-P-MENTHENE-8,9-DIOL	Seed	40.0	125.0		--
13	BETA-PINENE	Seed	40.0	600.0	-0.6190200878086086	--
0	8-P-MENTHENE-1,2-DIOL	Seed	30.0	85.0		--
5	SABINENE	Fruit	30.0	60.0	-0.5167574947017265	--
0	8-P-MENTHENE-7-AL	Seed	30.0	85.0		--
0	8-P-MENTHENE-1,2-DIOL-ISOMER	Seed	30.0	85.0		--
7	SALICYLATES	Seed	28.0	30.0	-0.17921879008985586	--
0	CARVONE-EPOXIDE(8,9)	Seed	25.0	80.0		--
2	N-OCTANAL	Seed	24.0	48.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	N-OCTANAL	Fruit	24.0	48.0		--
39	NIACIN	Fruit	21.0	56.0	-0.0628056202874991	--
0	CIS-CARVEOL	Seed	21.0	42.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
39	NIACIN	Seed	21.0	56.0	0.3925544644928447	USDA's Ag Handbook 8 and sequelae)

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11	PERILLALDEHYDE	Seed	20.0	60.0	-0.4953847300732596	--
0	LIMONENE-4-OL	Seed	20.0	55.0		--
0	BETA-CARYOPHYLLENE	Seed	20.0	1320.0	0.9233136232225039	--
0	CIS-DIHYDROCARVONE	Seed	15.0	50.0	-0.70302870575708	--
0	TRANS-DIHYDROCARVONE	Seed	15.0	354.0	-1.0	--
14	MANGANESE	Fruit	13.0	34.0	-0.17934592524588852	--
14	MANGANESE	Seed	13.0	34.0	-0.24317239745397942	--
22	MYRCENE	Seed	12.0	1560.0	-0.1814418669231581	--
11	GAMMA-TERPINENE	Seed	12.0	14160.0	1.7263032899871258	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	GAMMA-TERPINENE	Fruit	12.0	14160.0	1.9544259127217853	--
0	P-1(7),8-MENTHADIENE-6-OL	Seed	10.0	25.0		--
12	COPPER	Seed	9.0	18.0	0.2889427800893567	--
12	COPPER	Fruit	9.0	13.8	0.07635430476669072	--
3	NICKEL	Seed	7.0	10.0	1.003733061132988	--
5	N-NONANAL	Fruit	6.0	12.0		--
13	ALPHA-TERPINENE	Seed	6.0	12.0	-0.5062619617372923	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	N-NONANAL	Seed	6.0	12.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
53	LINALOOL	Seed	5.0	96.0	-0.464767259448611	--
0	TRANS-CARYOPHYLLENE-OXIDE	Seed	5.0	20.0		--
0	DELTA-3-CARENE-EPOXIDE	Seed	5.0	20.0		--
5	SABINENE	Seed	4.0	60.0	-0.43864204594661615	--
28	ALPHA-PINENE	Seed	4.0	540.0	-0.4451814085289362	--
15	RIBOFLAVIN	Seed	3.0	4.0	0.18234587940570884	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	RIBOFLAVIN	Fruit	3.0	4.0	-0.21615825716438572	--
11	ALPHA-PHELLANDRENE	Seed	3.0	1230.0	-0.5312072630899651	--
31	THIAMIN	Fruit	3.0	4.0	-0.17059389090821606	--
11	ALPHA-PHELLANDRENE	Fruit	3.0	6.0	-0.5736201696885931	--
31	THIAMIN	Seed	3.0	4.0	-0.6165338688916807	USDA's Ag Handbook 8 and sequelae)
9	CAMPHENE	Fruit	1.0	900.0	0.021412618138643334	--
9	CAMPHENE	Seed	1.0	900.0	1.5222256000900138	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
16	P-CYMENE	Seed	0.1	1320.0	-0.39090586317354775	--
7	ASTRAGALIN	Seed				--
0	NEOISODIHYDROCARVEOL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
6	FURFURAL	Fruit				--
1	ISORHAMNETIN-3-GLUCOSIDE	Seed				Wealth of India.
75	KAEMPFEROL	Flower				--
6	ACETALDEHYDE	Fruit				--
0	ABSCISIC-ACID	Seed		0.12	-0.49402184451606584	--
13	FALCARINDIOL	Root		290.0	1.3544986584188263	--
2	COBALT	Seed		1.0	-0.16257255524625883	--
2	(+)-CARVONE	Plant				--
2	PHYTOSTEROLS	Fruit		760.0	-0.23881522589243726	--
176	QUERCETIN	Leaf				--
0	(E)-P-MENTHA-2,8-DIEN-1-OL	Seed				--
0	BETA-FENCHENE	Seed				--
0	SUGARS	Seed		30000.0	-0.6664407950618276	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

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19	CARVONE	Plant		3120.0	0.11898806640618137	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	POLYACETYLENES	Root				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
23	ALPHA-TERPINEOL	Seed				--
35	TANNIN	Plant				--
1	ISORHAMNETIN-3-GALACTOSIDE	Seed				Wealth of India.
75	KAEMPFEROL	Leaf				--
0	NEOISODIHYDROCARVEOL	Fruit				--
2	DIHYDROCARVEOL	Plant		950.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
43	XANTHOTOXIN	Seed				--
0	8-CIS-MENTHENE	Seed		0.1		--
0	ISODIHYDROCARVONE	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
37	CARVACROL	Seed				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
0	(Z)-DIHYDROCARVONE	Seed				--
1	CARVEOL	Essential Oil				--
0	PHYTOFLUENE	Plant				Wealth of India.
24	CHROMIUM	Fruit		15.5	1.6694676930187362	--

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17	THUJONE	Seed				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.
2	METHANOL	Seed				--
0	SUGARS	Fruit		30000.0	-0.7603640515097223	--
0	HYDROXYCOUMARINS	Seed				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
13	BETA-PINENE	Plant		20.0	-0.4138919250596763	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
75	KAEMPFEROL	Seed				--
0	QUERCETIN-3-GLUCURONIDE	Seed				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	NEODIHYDROCARVEOL	Fruit				--
22	UMBELLIFERONE	Plant				Wealth of India.
22	UMBELLIFERONE	Root				--
10	5-METHOXY-PSORALEN	Plant				Wealth of India.
0	DIHYDROPINOL	Essential Oil		2800.0		--
6	FURFURAL	Seed				--
53	BETA-CAROTENE	Seed		2.0	-0.30429005311638807	--
0	PETROSELINIC-ACID	Seed Oil				--
0	(E)-DIHYDROCARVONE	Seed				--
37	CARVACROL	Seed Essent. Oil		595300.0		--

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9	CAMPHENE	Plant		30.0	-0.5545069597862352	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	FALCARINONE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
0	HEXADECENIC-ACID	Seed		1000.0		Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
22	ISOQUERCITRIN	Shoot				--
2	DIACETYL	Fruit				--
2	TRIFOLIN	Seed				--
0	DIHYDROCARVONE	Essential Oil		5000.0	-0.5088490622892315	--
14	PERILLYL-ALCOHOL	Essential Oil		800.0		--
102	CAFFEIC-ACID	Seed		2840.0	1.9446682932160153	--
0	ALPHA-THUJENE	Seed				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
176	QUERCETIN	Seed				--
0	CARVYL-ACETATE	Plant		55.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	DIACETYL	Seed				--
5	STARCH	Fruit		45000.0	-0.3878494415116057	--
0	FALCARINOL-ONE	Root				--
12	HERNIARIN	Plant				Wealth of India.
53	BETA-CAROTENE	Fruit		2.0	-0.14693466516508752	--
0	(-)-TRANS-CARVEOL	Seed Essent. Oil				--

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22	ISOQUERCITRIN	Seed				--
8	DELTA-3-CARENE	Plant		100.0	-0.29930598714761825	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	TRANS-CARVEOL	Flower Essent. Oil				--
2	DIHYDROCARVEOL	Essential Oil				--
47	BETA-SITOSTEROL	Root				--
3	MANNOSE	Seed				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
0	PETROSELINIC-ACID	Plant		33020.0		--
0	FALCARINDION	Root				--
7	GLUCOSE	Seed				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
0	(+)-TRANS-CARVEOL	Seed Essent. Oil				--
30	HYPEROSIDE	Seed				--
10	5-METHOXY-PSORALEN	Seed				--
0	TRANS-BETA-OCIMENE	Seed				--
1	DECAN-1-AL	Seed				--
24	CHROMIUM	Seed		15.5	1.5756788450079844	--
4	CALCIUM-OXALATE	Seed				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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
31	MYRISTICIN	Plant		120.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	P-MENTHA-2,8-DIEN-1-OL	Seed				--
2	BETA-MYRCENE	Seed				--
0	2,4-HEXADIENAL	Seed				--
0	TRICYCLEN	Fruit				--
0	ISODIHYDROCARVONE	Fruit				--
0	MANNANS	Seed				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
1	CARVEOL	Plant		430.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	EO	Plant		10000.0	0.019853678703787233	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	GALACTOSE	Seed				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
0	(+)-DIHYDROCARVEOL	Essential Oil		600.0		--
3	BETA-PHELLANDRENE	Seed				Wealth of India.
0	HEXA-2,4-DIEN-1-AL	Seed				--
0	(-)-LIMONENE	Seed Essent. Oil				--
44	SCOPOLETIN	Plant				Wealth of India.
0	D-PERILLALDEHYDE	Fruit				--
44	SCOPOLETIN	Root				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
10	CUMINALDEHYDE	Essential Oil		370000.0	1.0	--
0	DECANAL	Seed				--
25	P-COUMARIC-ACID	Seed		86.0	-0.2878871950232701	--
5	BETA-ELEMENE	Seed Essent. Oil				--
0	ISO-DIHYDROCARVEOL	Fruit				--
37	CARVACROL	Plant				--
0	FUCOSE	Seed				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
28	ALPHA-PINENE	Plant		20.0	-0.46732168198180957	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	(-)-CIS-CARVEOL	Seed Essent. Oil				--
0	ARABINOSE	Seed				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
2	GERMACRENE-D	Seed Essent. Oil				--
0	(+)-LIMONENE	Seed Essent. Oil				--
0	ISO-DIHYDROCARVEOL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	RHAMNOSE	Seed				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
0	D-DIHYDROPINOL	Seed				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	QUERCETIN-3-O-CAFFEYL-GLUCOSIDE	Seed				--
67	1,8-CINEOLE	Seed		0.1	-0.7134832654336017	--
6	ACETALDEHYDE	Seed				--
5	BETA-ELEMENE	Essential Oil				--
0	TRICYCLEN	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
176	QUERCETIN	Fruit				--
1	DIHYDROCARVYL-ACETATE	Plant		55.0	-0.6178866361535852	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	(+)-CIS-CARVEOL	Seed Essent. Oil				--
21	8-METHOXY-PSORALEN	Plant				Wealth of India.
2	GERMACRENE-D	Essential Oil				--
0	METHYL-3,7-DIMETHYL-2,6-OCTADIENOATE	Seed				--
0	(-)-DIHYDROCARVONE	Essential Oil		10.0		--
2	QUERCETIN-3'-GLUCOSIDE	Seed				Wealth of India.
2	QUERCETIN-3-O-BETA-D-GLUCURONIDE	Seed				--
0	(Z)-BETA-OCIMENE	Seed				--
0	CIS-CARVEOL	Flower Essent. Oil				--
10	CUMINALDEHYDE	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
17	THUJONE	Fruit				--
22	MYRCENE	Plant		150.0	-0.3113042330188643	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
60	LIMONENE	Seed Essent. Oil		381600.0	0.7234037553203063	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.)
9	TERPINOLENE	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	D-PERILLALDEHYDE	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	KAEMPFEROL-3-O-GLUCOSIDE	Seed				Wealth of India.
0	4-METHYL-BENZALDEHYDE	Seed				--
13	GERANIAL	Seed				--
2	PHYTOSTEROLS	Seed		760.0	-0.4421772689232783	USDA's Ag Handbook 8 and sequelae)
0	(-)-CARVONE	Seed Essent. Oil				--
2	QUERCETIN-3-O-BETA-D-GLUCOSIDE	Seed				--
0	(E)-BETA-OCIMENE	Seed				--
0	CIS-BETA-OCIMENE	Seed				--
2	CAMPESTEROL	Seed		30.0	-0.5601817141925177	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
60	LIMONENE	Plant		420.0	-0.22767736339342154	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	QUERCETIN-3-O-GALACTOSIDE	Seed				Wealth of India.
2	COBALT	Fruit		1.0	-0.4140559583804006	--
0	BENZOIC-ACID-4-O-BETA-D-GLUCOSIDE	Seed		37.0	-1.0	--
5	STARCH	Seed		45000.0	-1.0737470069854615	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	TERPINOLENE	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	KAEMPFEROL-3-O-GALACTOSIDE	Seed				Wealth of India.
4	CALCIUM-OXALATE	Fruit				--
3	NICKEL	Fruit		7.0	1.349383302912262	--
3	XYLOSE	Seed				Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
0	DIHYDROCARVONE	Plant		230.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
15	CITRONELLOL	Seed		0.1		--
0	2-METHYL-BENZALDEHYDE	Seed				--
0	GAMMA-ELEMENE	Seed				--
0	NEODIHYDROCARVEOL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	(+)-CARVONE	Seed Essent. Oil				--
176	QUERCETIN	Flower				--
0	(Z)-P-MENTHA-2,8-DIEN-1-OL	Seed				--
47	BETA-SITOSTEROL	Seed		420.0	-0.4698064371659858	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
2	METHANOL	Fruit				--
0	POLYSACCHARIDES	Seed		130000.0	-0.6376825261439872	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
0	CIS-P-MENTH-8-EN-1-OL	Plant				--