

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Carum carvi*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	IRON	Seed	123.0	1200.0	4.874936682884126	--
60	LIMONENE	Fruit	7860.0	30180.0	3.5781164025182557	--
60	LIMONENE	Seed	3000.0	42000.0	2.245951109203175	--
60	LIMONENE	Essential Oil	250000.0	500000.0	2.140871457019611	--
19	CARVONE	Fruit	9000.0	44310.0	1.99999975413892	--
11	GAMMA-TERPINENE	Fruit	12.0	14160.0	1.9544259127217853	--
102	CAFFEIC-ACID	Seed		2840.0	1.9446682932160153	--
11	GAMMA-TERPINENE	Seed	12.0	14160.0	1.7263032899871258	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
24	CHROMIUM	Fruit		15.5	1.6694676930187362	--
24	CHROMIUM	Seed		15.5	1.5756788450079844	--
9	CAMPHENE	Seed	1.0	900.0	1.5222256000900138	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	PROTEIN	Fruit	190521.0	220000.0	1.4813201219223062	--
0	PROTEIN	Seed	190521.0	400000.0	1.478470052739822	--
19	CARVONE	Essential Oil	264000.0	580000.0	1.456771501873754	--
4	CADINENE	Plant	3720.0	29760.0	1.4141020257548391	--
19	CARVONE	Seed Essent. Oil	595300.0	900000.0	1.38528277461378	--
13	FALCARINDIOL	Root		290.0	1.3544986584188263	--
3	NICKEL	Fruit		7.0	1.349383302912262	--
0	DIHYDROCARVONE	Seed	240.0	1890.0	1.222391887709424	--
3	NICKEL	Seed	7.0	10.0	1.003733061132988	--
18	OLEIC-ACID	Seed	29000.0	241000.0	1.0020612909785875	--
1	CARVEOL	Seed	120.0	3240.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
10	CUMINALDEHYDE	Essential Oil		370000.0	1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TRANS-DIHYDROCARVONE	Fruit	177.0	354.0	1.0	--
28	CALCIUM	Fruit	6426.0	8160.0	0.993126554897215	--
4	PHOSPHORUS	Fruit	5680.0	6302.0	0.9373426112560593	--
77	ZINC	Fruit	47.0	61.0	0.9235898750204936	--
0	BETA-CARYOPHYLLENE	Seed	20.0	1320.0	0.9233136232225039	--
28	CALCIUM	Seed	1530.0	8160.0	0.7371261230888665	--
60	LIMONENE	Seed Essent. Oil		381600.0	0.7234037553203063	--
0	FAT	Fruit	127000.0	176826.0	0.7093306748827288	--
15	FIBER	Seed	112730.0	223000.0	0.6966094834523356	--
6	IRON	Fruit	123.0	286.0	0.6069967345672661	--
0	ASH	Seed	55000.0	67620.0	0.5937289975821403	--
77	ZINC	Seed	47.0	66.0	0.592445203168114	--
19	CARVONE	Seed	10880.0	32640.0	0.5757430989637712	--
0	EO	Fruit	30000.0	70000.0	0.54062890380803	--
12	GLYCINE	Seed	13220.0	14675.0	0.5382536999822551	Revised USDA data received 1993.
0	EO	Seed	20000.0	82000.0	0.4861364448600147	--
39	NIACIN	Seed	21.0	56.0	0.3925544644928447	USDA's Ag Handbook 8 and sequelae)
11	GAMMA-TERPINENE	Plant	270.0	2215.0	0.3668556912256766	--
2	CYSTINE	Seed	3290.0	3650.0	0.34786844092544134	Revised USDA data received 1993.
65	MAGNESIUM	Fruit	2580.0	2863.0	0.3395434445319955	--
4	PHOSPHORUS	Seed	5650.0	6580.0	0.3241524123754052	--
27	LINOLEIC-ACID	Fruit	20300.0	46714.0	0.3036638054156712	--
12	COPPER	Seed	9.0	18.0	0.2889427800893567	--
0	ASH	Fruit	56460.0	67620.0	0.28371563599880156	--
14	POTASSIUM	Seed	10810.0	15670.0	0.2726200242002285	--
18	OLEIC-ACID	Fruit	54400.0	95648.0	0.2564460151509538	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	RIBOFLAVIN	Seed	3.0	4.0	0.18234587940570884	USDA's Ag Handbook 8 and sequelae)
23	TERPINEN-4-OL	Plant	120.0	985.0	0.14761831910973383	--
15	FIBER	Fruit	112730.0	155640.0	0.13176741912032305	--
0	CARBOHYDRATES	Seed	300000.0	554000.0	0.12160149368264386	--
19	CARVONE	Plant		3120.0	0.11898806640618137	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
12	COPPER	Fruit	9.0	13.8	0.07635430476669072	--
4	THREONINE	Seed	7560.0	8390.0	0.056493706448137275	Revised USDA data received 1993.
3	ASPARTIC-ACID	Seed	20840.0	23130.0	0.048029804288976026	Revised USDA data received 1993.
9	CAMPHENE	Fruit	1.0	900.0	0.021412618138643334	--
0	EO	Plant		10000.0	0.019853678703787233	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
65	MAGNESIUM	Seed	2070.0	2950.0	0.0015393251037586135	--
3	ALANINE	Seed	9140.0	10150.0	-0.0013229586167773184	Revised USDA data received 1993.
7	HISTIDINE	Seed	5500.0	6105.0	-0.005073065220825094	Revised USDA data received 1993.
1	SERINE	Seed	9460.0	10500.0	-0.014241088185932402	Revised USDA data received 1993.
3	VALINE	Seed	10370.0	11510.0	-0.061769047027664975	Revised USDA data received 1993.
39	NIACIN	Fruit	21.0	56.0	-0.0628056202874991	--
15	METHIONINE	Seed	3610.0	4005.0	-0.07999578248445874	Revised USDA data received 1993.
4	LYSINE	Seed	10310.0	11445.0	-0.08853511037990262	Revised USDA data received 1993.
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.)
22	MYRCENE	Fruit	180.0	1560.0	-0.14096760282697604	--
8	TYROSINE	Seed	6420.0	7125.0	-0.14274154462014257	Revised USDA data received 1993.
53	BETA-CAROTENE	Fruit		2.0	-0.14693466516508752	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	DELTA-3-CARENE	Seed	90.0	180.0	-0.16222142113076254	--
2	COBALT	Seed		1.0	-0.16257255524625883	--
2	PALMITOLEIC-ACID	Fruit	900.0	999.0	-0.16284284724499656	--
1	SODIUM	Fruit	149.0	212.0	-0.16384706454945608	--
3	ISOLEUCINE	Seed	8260.0	9170.0	-0.16863241397137768	Revised USDA data received 1993.
31	THIAMIN	Fruit	3.0	4.0	-0.17059389090821606	--
1	SODIUM	Seed	149.0	340.0	-0.17599424618728202	--
7	SALICYLATES	Seed	28.0	30.0	-0.17921879008985586	--
14	MANGANESE	Fruit	13.0	34.0	-0.17934592524588852	--
22	MYRCENE	Seed	12.0	1560.0	-0.1814418669231581	--
0	PHYTATE	Seed	10190.0	10900.0	-0.19448774169058122	--
14	POTASSIUM	Fruit	12902.0	15665.0	-0.19919899891978007	--
29	TRYPTOPHAN	Seed	2440.0	2710.0	-0.20976729388732002	Revised USDA data received 1993.
15	RIBOFLAVIN	Fruit	3.0	4.0	-0.21615825716438572	--
13	MUFA	Seed	71250.0	79085.0	-0.21948429390500326	Revised USDA data received 1993.
0	PROLINE	Seed	9170.0	10180.0	-0.2270794734050652	Revised USDA data received 1993.
60	LIMONENE	Plant		420.0	-0.22767736339342154	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
7	PHENYLALANINE	Seed	8670.0	9625.0	-0.22873636959027158	Revised USDA data received 1993.
2	PHYTOSTEROLS	Fruit		760.0	-0.23881522589243726	--
14	MANGANESE	Seed	13.0	34.0	-0.24317239745397942	--
6	MYRISTIC-ACID	Fruit	400.0	444.0	-0.24819764617872128	--
13	PALMITIC-ACID	Fruit	2000.0	6658.0	-0.2618846307910205	--
2	PALMITOLEIC-ACID	Seed	900.0	999.0	-0.27448704739952007	USDA's Ag Handbook 8 and sequelae)
8	GLUTAMIC-ACID	Seed	31690.0	35175.0	-0.2758530020526007	Revised USDA data received 1993.
13	BETA-PINENE	Fruit	270.0	600.0	-0.2786206877223514	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	WATER	Seed	91880.0	155000.0	-0.27862372656365736	--
25	P-COUMARIC-ACID	Seed		86.0	-0.2878871950232701	--
6	MYRISTIC-ACID	Seed	400.0	444.0	-0.29019087360930124	USDA's Ag Handbook 8 and sequelae)
15	ALPHA-LINOLENIC-ACID	Seed	1500.0	1664.0	-0.29806400798854177	USDA's Ag Handbook 8 and sequelae)
8	DELTA-3-CARENE	Plant		100.0	-0.29930598714761825	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
53	BETA-CAROTENE	Seed		2.0	-0.30429005311638807	--
22	MYRCENE	Plant		150.0	-0.3113042330188643	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	DELTA-3-CARENE	Fruit	90.0	180.0	-0.31208082478300797	--
8	STEARIC-ACID	Plant	1100.0	1221.0	-0.31662981705011717	--
2	LEUCINE	Seed	12180.0	13520.0	-0.3408978107463804	Revised USDA data received 1993.
5	STARCH	Fruit		45000.0	-0.3878494415116057	--
16	P-CYMENE	Seed	0.1	1320.0	-0.39090586317354775	--
15	ALPHA-LINOLENIC-ACID	Fruit	1500.0	1664.0	-0.39890612938011816	--
13	BETA-PINENE	Plant		20.0	-0.4138919250596763	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	COBALT	Fruit		1.0	-0.4140559583804006	--
5	SABINENE	Seed	4.0	60.0	-0.43864204594661615	--
2	PHYTOSTEROLS	Seed		760.0	-0.4421772689232783	USDA's Ag Handbook 8 and sequelae)
7	LAURIC-ACID	Fruit	100.0	110.0	-0.44416811720185917	--
28	ALPHA-PINENE	Seed	4.0	540.0	-0.4451814085289362	--
0	FAT	Seed	100000.0	180000.0	-0.44976698613804794	--
14	ARGININE	Seed	12520.0	13900.0	-0.45478768617160453	Revised USDA data received 1993.
53	LINALOOL	Seed	5.0	96.0	-0.464767259448611	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	ALPHA-PINENE	Plant		20.0	-0.46732168198180957	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
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.)
0	ABSCISIC-ACID	Seed		0.12	-0.49402184451606584	--
11	PERILLALDEHYDE	Seed	20.0	60.0	-0.4953847300732596	--
13	ALPHA-TERPINENE	Seed	6.0	12.0	-0.5062619617372923	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
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.
0	DIHYDROCARVONE	Essential Oil		5000.0	-0.5088490622892315	--
0	SFA	Seed	6200.0	6880.0	-0.5108368608268686	Revised USDA data received 1993.
7	LAURIC-ACID	Seed	100.0	110.0	-0.511344659660987	USDA's Ag Handbook 8 and sequelae)
13	PALMITIC-ACID	Seed	2000.0	9000.0	-0.5139018470842157	--
5	SABINENE	Fruit	30.0	60.0	-0.5167574947017265	--
27	LINOLEIC-ACID	Seed	19600.0	46714.0	-0.5175834259469172	--
3	CAPRIC-ACID	Seed	100.0	110.0	-0.5239374828451797	USDA's Ag Handbook 8 and sequelae)
8	STEARIC-ACID	Seed	1000.0	1800.0	-0.5263361525324093	--
4	PUFA	Seed	32720.0	36320.0	-0.5293414540891105	Revised USDA data received 1993.
11	ALPHA-PHELLANDRENE	Seed	3.0	1230.0	-0.5312072630899651	--
9	CAMPHENE	Plant		30.0	-0.5545069597862352	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
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.)
11	ALPHA-PHELLANDRENE	Fruit	3.0	6.0	-0.5736201696885931	--
28	ALPHA-PINENE	Fruit	42.0	540.0	-0.577800039343025	--
31	THIAMIN	Seed	3.0	4.0	-0.6165338688916807	USDA's Ag Handbook 8 and sequelae)
1	DIHYDROCARVYL-ACETATE	Plant		55.0	-0.6178866361535852	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	BETA-PINENE	Seed	40.0	600.0	-0.6190200878086086	--
0	LINALOL	Fruit	48.0	96.0	-0.6231721368623974	--
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	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.
3	CAPRIC-ACID	Fruit	100.0	110.0	-0.6828803041071304	--
0	CIS-DIHYDROCARVONE	Seed	15.0	50.0	-0.70302870575708	--
67	1,8-CINEOLE	Seed		0.1	-0.7134832654336017	--
0	SUGARS	Fruit		30000.0	-0.7603640515097223	--
0	PETROSELINIC-ACID	Seed	40000.0	354000.0	-0.8033510875816932	--
0	KILOCALORIES	Seed	3330.0	3700.0	-0.9069114205711409	Revised USDA data received 1993.
31	MYRISTICIN	Seed	60.0	985.0	-0.9148647060412254	--
31	MYRISTICIN	Plant		120.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
14	PERILLYL-ALCOHOL	Plant	160.0	1310.0	-1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	TRANS-CARVEOL	Seed	105.0	210.0	-1.0	--
0	TRANS-DIHYDROCARVONE	Seed	15.0	354.0	-1.0	--
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.
0	CARBOHYDRATES	Fruit	499000.0	554000.0	-1.2239479546663645	--
0	EICOSENOIC-ACID	Seed	1000.0	1800.0	-1.3117937762239429	--
6	FURFURAL	Fruit				--
2	N-OCTANAL	Seed	24.0	48.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
75	KAEMPFEROL	Flower				--
7	ASTRAGALIN	Seed				--
0	NEOISODIHYDROCARVEOL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	ISORHAMNETIN-3-GLUCOSIDE	Seed				Wealth of India.
0	8-P-MENTHENE-1,2-DIOL	Seed	30.0	85.0		--
0	TRANS-1-CARVEOL	Seed	230.0	690.0		--
2	(+)-CARVONE	Plant				--
0	CIS-LIMONENE-EPOXIDE	Seed	300.0	900.0		--
0	DIHYDROCARVONE	Fruit	240.0	1500.0		--
6	ACETALDEHYDE	Fruit				--
176	QUERCETIN	Leaf				--
0	(E)-P-MENTHA-2,8-DIEN-1-OL	Seed				--
0	BETA-FENCHENE	Seed				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
0	CIS-CARVEOL	Seed	21.0	42.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
35	TANNIN	Plant				--
75	KAEMPFEROL	Leaf				--
23	ALPHA-TERPINEOL	Seed				--
1	ISORHAMNETIN-3-GALACTOSIDE	Seed				Wealth of India.
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.
43	XANTHOTOXIN	Seed				--
0	8-CIS-MENTHENE	Seed		0.1		--
0	CIS-2-CARVEOL	Seed	75.0	230.0		--
0	NEOISODIHYDROCARVEOL	Fruit				--
2	DIHYDROCARVEOL	Plant		950.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	(Z)-DIHYDROCARVONE	Seed				--
1	CARVEOL	Essential Oil				--
0	PHYTOFLUENE	Plant				Wealth of India.
75	KAEMPFEROL	Seed				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
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	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.
6	FURFURAL	Seed				--
22	UMBELLIFERONE	Root				--
10	5-METHOXY-PSORALEN	Plant				Wealth of India.
0	DIHYDROPINOL	Essential Oil		2800.0		--
22	UMBELLIFERONE	Plant				Wealth of India.
0	NEODIHYDROCARVEOL	Fruit				--
2	DIHYDROCARVEOL	Fruit	360.0	720.0		--
0	PETROSELINIC-ACID	Seed Oil				--
0	(E)-DIHYDROCARVONE	Seed				--
37	CARVACROL	Seed Essent. Oil		595300.0		--
0	CARVYL-ACETATE	Seed	45.0	455.0		--
22	ISOQUERCITRIN	Shoot				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
3	FALCARINONE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
2	TRIFOLIN	Seed				--
0	2,8-P-MENTHADIENE-6-OL	Seed	110.0	330.0		--
0	TRANS-LIMONENE-EPOXIDE	Seed	200.0	600.0		--
2	N-OCTANAL	Fruit	24.0	48.0		--
2	DIACETYL	Fruit				--
14	PERILLYL-ALCOHOL	Essential Oil		800.0		--
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.
0	P-1(7),8-MENTHADIENE-6-OL	Seed	10.0	25.0		--
0	CARVYL-ACETATE	Plant		55.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
176	QUERCETIN	Seed				--
0	(-)-TRANS-CARVEOL	Seed Essent. Oil				--
0	CIS-LIMONENE-DIEPOXIDE	Seed	55.0	160.0		--
22	ISOQUERCITRIN	Seed				--
2	DIACETYL	Seed				--
12	HERNIARIN	Plant				Wealth of India.
0	FALCARINOL-ONE	Root				--
2	DIHYDROCARVEOL	Seed	200.0	780.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	TRANS-CARVEOL	Flower Essent. Oil				--
0	2,8-P-MENTHADIENE-1-OL	Seed	120.0	365.0		--
2	DIHYDROCARVEOL	Essential Oil				--
0	TRANS-LIMONENE-DIEPOXIDE	Seed	45.0	140.0		--
5	N-NONANAL	Fruit	6.0	12.0		--
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	(+)-TRANS-CARVEOL	Seed Essent. Oil				--
0	CARVONE-EPOXIDE(8,9)	Seed	25.0	80.0		--
30	HYPEROSIDE	Seed				--
0	PETROSELINIC-ACID	Plant		33020.0		--
10	5-METHOXY-PSORALEN	Seed				--
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	FALCARINDION	Root				--
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.
0	TRANS-BETA-OCIMENE	Seed				--
0	1-P-MENTHENE-8,9-DIOL	Seed	40.0	125.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	DECAN-1-AL	Seed				--
0	TRANS-CARYOPHYLLENE-OXIDE	Seed	5.0	20.0		--
2	BETA-MYRCENE	Seed				--
0	2,4-HEXADIENAL	Seed				--
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.
0	ISODIHYDROCARVONE	Fruit				--
1	CARVEOL	Plant		430.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRICYCLEN	Fruit				--
0	P-MENTHA-2,8-DIEN-1-OL	Seed				--
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				--
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.
44	SCOPOLETIN	Root				--
0	1-P-MENTHENE-6-AN-OL	Seed	50.0	155.0		--
0	DECANAL	Seed				--
44	SCOPOLETIN	Plant				Wealth of India.
31	MYRISTICIN	Fruit	60.0	420.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	D-PERILLALDEHYDE	Fruit				--
5	BETA-ELEMENE	Seed Essent. Oil				--
2	(+)-CARVONE	Seed	9000.0	55760.0		--
0	ISO-DIHYDROCARVEOL	Fruit				--
37	CARVACROL	Plant				--
0	ISO-DIHYDROCARVEOL	Seed				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	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.
6	ACETALDEHYDE	Seed				--
0	QUERCETIN-3-O-CAFFEYL-GLUCOSIDE	Seed				--
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
5	BETA-ELEMENE	Essential Oil				--
0	TRICYCLEN	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	LIMONENE-4-OL	Seed	20.0	55.0		--
176	QUERCETIN	Fruit				--
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		--
17	THUJONE	Fruit				--
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.
2	QUERCETIN-3'-GLUCOSIDE	Seed				Wealth of India.
9	TERPINOLENE	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	KAEMPFEROL-3-O-GLUCOSIDE	Seed				Wealth of India.
0	D-PERILLALDEHYDE	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	N-NONANAL	Seed	6.0	12.0		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
1	DIHYDROCARVYL-ACETATE	Seed	45.0	455.0		--
0	4-METHYL-BENZALDEHYDE	Seed				--
0	8-P-MENTHENE-7-AL	Seed	30.0	85.0		--
13	GERANIAL	Seed				--
0	(-)-CARVONE	Seed Essent. Oil				--
0	DELTA-3-CARENE-EPOXIDE	Seed	5.0	20.0		--
1	DIHYDROCARVYL-ACETATE	Fruit	45.0	90.0		--
2	QUERCETIN-3-O-BETA-D-GLUCOSIDE	Seed				--
0	(E)-BETA-OCIMENE	Seed				--
0	CIS-BETA-OCIMENE	Seed				--
0	QUERCETIN-3-O-GALACTOSIDE	Seed				Wealth of India.
0	KAEMPFEROL-3-O-GALACTOSIDE	Seed				Wealth of India.
4	CALCIUM-OXALATE	Fruit				--
9	TERPINOLENE	Fruit				--
0	NEODIHYDROCARVEOL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	2-METHYL-BENZALDEHYDE	Seed				--
0	8-P-MENTHENE-1,2-DIOL-ISOMER	Seed	30.0	85.0		--
0	GAMMA-ELEMENE	Seed				--
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.
2	(+)-CARVONE	Seed Essent. Oil				--
15	CITRONELLOL	Seed		0.1		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DIHYDROCARVONE	Plant		230.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
176	QUERCETIN	Flower				--
0	(Z)-P-MENTHA-2,8-DIEN-1-OL	Seed				--
2	METHANOL	Fruit				--
0	CIS-P-MENTH-8-EN-1-OL	Plant				--