

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Carum carvi*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
77	ZINC	Seed	47.0	66.0	0.592445203168114	--
77	ZINC	Fruit	47.0	61.0	0.9235898750204936	--
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.
43	XANTHOTOXIN	Seed				--
3	VALINE	Seed	10370.0	11510.0	-0.061769047027664975	Revised USDA data received 1993.
22	UMBELLIFERONE	Root				--
22	UMBELLIFERONE	Plant				Wealth of India.
8	TYROSINE	Seed	6420.0	7125.0	-0.14274154462014257	Revised USDA data received 1993.
29	TRYPTOPHAN	Seed	2440.0	2710.0	-0.20976729388732002	Revised USDA data received 1993.
2	TRIFOLIN	Seed				--
1	TRANS-CARVEOL	Flower Essent. Oil				--
1	TRANS-CARVEOL	Seed	105.0	210.0	-1.0	--
17	THUJONE	Fruit				--
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.
4	THREONINE	Seed	7560.0	8390.0	0.056493706448137275	Revised USDA data received 1993.
31	THIAMIN	Fruit	3.0	4.0	-0.17059389090821606	--
31	THIAMIN	Seed	3.0	4.0	-0.6165338688916807	USDA's Ag Handbook 8 and sequelae)
9	TERPINOLENE	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
9	TERPINOLENE	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
23	TERPINEN-4-OL	Plant	120.0	985.0	0.14761831910973383	--
35	TANNIN	Plant				--
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.)
8	STEARIC-ACID	Plant	1100.0	1221.0	-0.31662981705011717	--
8	STEARIC-ACID	Seed	1000.0	1800.0	-0.5263361525324093	--
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.
5	STARCH	Fruit		45000.0	-0.3878494415116057	--
1	SODIUM	Fruit	149.0	212.0	-0.16384706454945608	--
1	SODIUM	Seed	149.0	340.0	-0.17599424618728202	--
1	SERINE	Seed	9460.0	10500.0	-0.014241088185932402	Revised USDA data received 1993.
44	SCOPOLETIN	Plant				Wealth of India.
44	SCOPOLETIN	Root				--
7	SALICYLATES	Seed	28.0	30.0	-0.17921879008985586	--
5	SABINENE	Seed	4.0	60.0	-0.43864204594661615	--
5	SABINENE	Fruit	30.0	60.0	-0.5167574947017265	--
15	RIBOFLAVIN	Seed	3.0	4.0	0.18234587940570884	USDA's Ag Handbook 8 and sequelae)
15	RIBOFLAVIN	Fruit	3.0	4.0	-0.21615825716438572	--
2	QUERCETIN-3-O-BETA-D-GLUCURONIDE	Seed				--
2	QUERCETIN-3-O-BETA-D-GLUCOSIDE	Seed				--
2	QUERCETIN-3'-GLUCOSIDE	Seed				Wealth of India.
176	QUERCETIN	Seed				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
176	QUERCETIN	Flower				--
176	QUERCETIN	Leaf				--
176	QUERCETIN	Fruit				--
4	PUFA	Seed	32720.0	36320.0	-0.5293414540891105	Revised USDA data received 1993.
14	POTASSIUM	Seed	10810.0	15670.0	0.2726200242002285	--
14	POTASSIUM	Fruit	12902.0	15665.0	-0.19919899891978007	--
2	PHYTOSTEROLS	Fruit		760.0	-0.23881522589243726	--
2	PHYTOSTEROLS	Seed		760.0	-0.4421772689232783	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Fruit	5680.0	6302.0	0.9373426112560593	--
4	PHOSPHORUS	Seed	5650.0	6580.0	0.3241524123754052	--
7	PHENYLALANINE	Seed	8670.0	9625.0	-0.22873636959027158	Revised USDA data received 1993.
14	PERILLYL-ALCOHOL	Plant	160.0	1310.0	-1.0	--
14	PERILLYL-ALCOHOL	Essential Oil		800.0		--
11	PERILLALDEHYDE	Seed	20.0	60.0	-0.4953847300732596	--
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)
13	PALMITIC-ACID	Seed	2000.0	9000.0	-0.5139018470842157	--
13	PALMITIC-ACID	Fruit	2000.0	6658.0	-0.2618846307910205	--
16	P-CYMENE	Seed	0.1	1320.0	-0.39090586317354775	--
25	P-COUMARIC-ACID	Seed		86.0	-0.2878871950232701	--
18	OLEIC-ACID	Seed	29000.0	241000.0	1.0020612909785875	--
18	OLEIC-ACID	Fruit	54400.0	95648.0	0.2564460151509538	--
3	NICKEL	Seed	7.0	10.0	1.003733061132988	--
3	NICKEL	Fruit		7.0	1.349383302912262	--
39	NIACIN	Seed	21.0	56.0	0.3925544644928447	USDA's Ag Handbook 8 and sequelae)
39	NIACIN	Fruit	21.0	56.0	-0.0628056202874991	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	N-OCTANAL	Fruit	24.0	48.0		--
2	N-OCTANAL	Seed	24.0	48.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	N-NONANAL	Fruit	6.0	12.0		--
5	N-NONANAL	Seed	6.0	12.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
31	MYRISTICIN	Plant		120.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
31	MYRISTICIN	Fruit	60.0	420.0		--
31	MYRISTICIN	Seed	60.0	985.0	-0.9148647060412254	--
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	--
22	MYRCENE	Plant		150.0	-0.3113042330188643	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
22	MYRCENE	Fruit	180.0	1560.0	-0.14096760282697604	--
22	MYRCENE	Seed	12.0	1560.0	-0.1814418669231581	--
13	MUFA	Seed	71250.0	79085.0	-0.21948429390500326	Revised USDA data received 1993.
15	METHIONINE	Seed	3610.0	4005.0	-0.07999578248445874	Revised USDA data received 1993.
2	METHANOL	Seed				--
2	METHANOL	Fruit				--
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.
14	MANGANESE	Seed	13.0	34.0	-0.24317239745397942	--
14	MANGANESE	Fruit	13.0	34.0	-0.17934592524588852	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
65	MAGNESIUM	Seed	2070.0	2950.0	0.0015393251037586135	--
65	MAGNESIUM	Fruit	2580.0	2863.0	0.3395434445319955	--
4	LYSINE	Seed	10310.0	11445.0	-0.08853511037990262	Revised USDA data received 1993.
27	LINOLEIC-ACID	Seed	19600.0	46714.0	-0.5175834259469172	--
27	LINOLEIC-ACID	Fruit	20300.0	46714.0	0.3036638054156712	--
53	LINALOOL	Seed	5.0	96.0	-0.464767259448611	--
60	LIMONENE	Seed Essent. Oil		381600.0	0.7234037553203063	--
60	LIMONENE	Plant		420.0	-0.22767736339342154	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
60	LIMONENE	Essential Oil	250000.0	500000.0	2.140871457019611	--
60	LIMONENE	Fruit	7860.0	30180.0	3.5781164025182557	--
60	LIMONENE	Seed	3000.0	42000.0	2.245951109203175	--
2	LEUCINE	Seed	12180.0	13520.0	-0.3408978107463804	Revised USDA data received 1993.
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)
75	KAEMPFEROL	Flower				--
75	KAEMPFEROL	Leaf				--
75	KAEMPFEROL	Seed				--
1	ISORHAMNETIN-3-GLUCOSIDE	Seed				Wealth of India.
1	ISORHAMNETIN-3-GALACTOSIDE	Seed				Wealth of India.
22	ISOQUERCITRIN	Shoot				--
22	ISOQUERCITRIN	Seed				--
3	ISOLEUCINE	Seed	8260.0	9170.0	-0.16863241397137768	Revised USDA data received 1993.
6	IRON	Fruit	123.0	286.0	0.6069967345672661	--
6	IRON	Seed	123.0	1200.0	4.874936682884126	--
30	HYPEROSIDE	Seed				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	HISTIDINE	Seed	5500.0	6105.0	-0.005073065220825094	Revised USDA data received 1993.
12	HERNIARIN	Plant				Wealth of India.
12	GLYCINE	Seed	13220.0	14675.0	0.5382536999822551	Revised USDA data received 1993.
8	GLUTAMIC-ACID	Seed	31690.0	35175.0	-0.2758530020526007	Revised USDA data received 1993.
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.
2	GERMACRENE-D	Essential Oil				--
2	GERMACRENE-D	Seed Essent. Oil				--
13	GERANIAL	Seed				--
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	Plant	270.0	2215.0	0.3668556912256766	--
11	GAMMA-TERPINENE	Fruit	12.0	14160.0	1.9544259127217853	--
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.
6	FURFURAL	Seed				--
6	FURFURAL	Fruit				--
15	FIBER	Seed	112730.0	223000.0	0.6966094834523356	--
15	FIBER	Fruit	112730.0	155640.0	0.13176741912032305	--
3	FALCARINONE	Plant				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
13	FALCARINDIOL	Root		290.0	1.3544986584188263	--
1	DIHYDROCARVYL-ACETATE	Seed	45.0	455.0		--
1	DIHYDROCARVYL-ACETATE	Plant		55.0	-0.6178866361535852	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	DIHYDROCARVYL-ACETATE	Fruit	45.0	90.0		--
2	DIHYDROCARVEOL	Essential Oil				--
2	DIHYDROCARVEOL	Seed	200.0	780.0		--
2	DIHYDROCARVEOL	Plant		950.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	DIHYDROCARVEOL	Fruit	360.0	720.0		--
2	DIACETYL	Fruit				--
2	DIACETYL	Seed				--
8	DELTA-3-CARENE	Plant		100.0	-0.29930598714761825	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	DELTA-3-CARENE	Seed	90.0	180.0	-0.16222142113076254	--
1	DECAN-1-AL	Seed				--
2	CYSTINE	Seed	3290.0	3650.0	0.34786844092544134	Revised USDA data received 1993.
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.
10	CUMINALDEHYDE	Essential Oil		370000.0	1.0	--
12	COPPER	Fruit	9.0	13.8	0.07635430476669072	--
12	COPPER	Seed	9.0	18.0	0.2889427800893567	--
2	COBALT	Seed		1.0	-0.16257255524625883	--
2	COBALT	Fruit		1.0	-0.4140559583804006	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	CITRONELLOL	Seed		0.1		--
24	CHROMIUM	Fruit		15.5	1.6694676930187362	--
24	CHROMIUM	Seed		15.5	1.5756788450079844	--
19	CARVONE	Plant		3120.0	0.11898806640618137	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
19	CARVONE	Fruit	9000.0	44310.0	1.99999975413892	--
19	CARVONE	Seed Essent. Oil	595300.0	900000.0	1.38528277461378	--
19	CARVONE	Essential Oil	264000.0	580000.0	1.456771501873754	--
19	CARVONE	Seed	10880.0	32640.0	0.5757430989637712	--
1	CARVEOL	Seed	120.0	3240.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	CARVEOL	Plant		430.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	CARVEOL	Essential Oil				--
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.
37	CARVACROL	Plant				--
37	CARVACROL	Seed Essent. Oil		595300.0		--
3	CAPRIC-ACID	Seed	100.0	110.0	-0.5239374828451797	USDA's Ag Handbook 8 and sequelae)
3	CAPRIC-ACID	Fruit	100.0	110.0	-0.6828803041071304	--
9	CAMPHENE	Plant		30.0	-0.5545069597862352	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	CAMPHENE	Fruit	1.0	900.0	0.021412618138643334	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
9	CAMPHENE	Seed	1.0	900.0	1.5222256000900138	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
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.)
4	CALCIUM-OXALATE	Fruit				--
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.
28	CALCIUM	Fruit	6426.0	8160.0	0.993126554897215	--
28	CALCIUM	Seed	1530.0	8160.0	0.7371261230888665	--
102	CAFFEIC-ACID	Seed		2840.0	1.9446682932160153	--
4	CADINENE	Plant	3720.0	29760.0	1.4141020257548391	--
47	BETA-SITOSTEROL	Root				--
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.)
13	BETA-PINENE	Plant		20.0	-0.4138919250596763	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	BETA-PINENE	Seed	40.0	600.0	-0.6190200878086086	--
13	BETA-PINENE	Fruit	270.0	600.0	-0.2786206877223514	--
3	BETA-PHELLANDRENE	Seed				Wealth of India.
2	BETA-MYRCENE	Seed				--
5	BETA-ELEMENE	Seed Essent. Oil				--
5	BETA-ELEMENE	Essential Oil				--
53	BETA-CAROTENE	Fruit		2.0	-0.14693466516508752	--
53	BETA-CAROTENE	Seed		2.0	-0.30429005311638807	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	ASTRAGALIN	Seed				--
3	ASPARTIC-ACID	Seed	20840.0	23130.0	0.048029804288976026	Revised USDA data received 1993.
14	ARGININE	Seed	12520.0	13900.0	-0.45478768617160453	Revised USDA data received 1993.
23	ALPHA-TERPINEOL	Seed				--
13	ALPHA-TERPINENE	Seed	6.0	12.0	-0.5062619617372923	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
28	ALPHA-PINENE	Seed	4.0	540.0	-0.4451814085289362	--
28	ALPHA-PINENE	Plant		20.0	-0.46732168198180957	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
28	ALPHA-PINENE	Fruit	42.0	540.0	-0.577800039343025	--
11	ALPHA-PHELLANDRENE	Seed	3.0	1230.0	-0.5312072630899651	--
11	ALPHA-PHELLANDRENE	Fruit	3.0	6.0	-0.5736201696885931	--
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	--
3	ALANINE	Seed	9140.0	10150.0	-0.0013229586167773184	Revised USDA data received 1993.
6	ACETALDEHYDE	Fruit				--
6	ACETALDEHYDE	Seed				--
21	8-METHOXY-PSORALEN	Plant				Wealth of India.
10	5-METHOXY-PSORALEN	Plant				Wealth of India.
10	5-METHOXY-PSORALEN	Seed				--
67	1,8-CINEOLE	Seed		0.1	-0.7134832654336017	--
2	(+)-CARVONE	Seed Essent. Oil				--
2	(+)-CARVONE	Plant				--
2	(+)-CARVONE	Seed	9000.0	55760.0		--