Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Anethum graveolens

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	(+)-ALPHA-PHELLANDRENE	Shoot				--
2	(+)-CARVONE	Seed Essent. Oil				--
2	(+)-CARVONE	Seed				--
2	(+)-CARVONE	Essential Oil				--
0	(+)-CIS-CARVEOL	Seed Essent. Oil				--
0	(+)-LIMONENE	Essential Oil				--
0	(+)-LIMONENE	Seed Essent. Oil				--
0	(+)-TRANS-CARVEOL	Seed Essent. Oil				--
0	(-)-CARVONE	Seed Essent. Oil				--
0	(-)-CIS-CARVEOL	Seed Essent. Oil				--
0	(-)-DIHYDROCARVONE	Seed				--
0	(-)-LIMONENE	Essential Oil				--
0	(-)-LIMONENE	Seed Essent. Oil				--
0	(-)-TRANS-CARVEOL	Seed Essent. Oil				--
0	1,4-TERPINENOL	Plant				--
0	1,5-CINEOL	Seed Essent. Oil				--
0	1,5-CINEOLE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	1-DIHYDROCARVEOL	Leaf	10.0	30.0		--
0	1-DIHYDROCARVEOL	Seed	75.0	490.0		--
0	1-METHYL-4-ISOPROPENYL-BENZENE	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	1-METHYL-4-ISOPROPENYL-BENZENE	Fruit				--
0	1-METHYL-4-ISOPROPENYL-BENZENE	Essential Oil				--
0	2-DIHYDROCARVEOL	Seed	155.0	1000.0		--
0	2-DIHYDROCARVEOL	Leaf	10.0	30.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	2-NONANOL	Plant				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	3',4'-DIMETHOXYQUERCETIN	Leaf				--
0	3,6-DIMETHYL-2,3,3A,4,5,7A-HEXAHYDROBENZOFURAN	Leaf	240.0	750.0		--
0	3,6-DIMETHYL-2,3,4,5,8,9-HEXAHYDROBENZOFURAN	Plant				--
0	3,6-DIMETHYL-3-ALPHA-4,5,7-ALPHA-TETRAHYDROCOUMARAN	Seed				--
0	3,6-DIMETHYL-3-ALPHA-4,5,7-ALPHA-TETRAHYDROCOUMARAN	Essential Oil				--
0	3,6-DIMETHYL-3A,4,5,7A-TETRAHYDROCOUMARAN	Fruit				--
0	3,6-DIMETHYLCOUMARAN	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	3,6-DIMETHYLCOUMARAN	Essential Oil				--
0	3,7-DIMETHYL-4,5,6,9-TETRAHYDROCOUMARAN	Fruit				--
0	3,7-DIMETHYL-4,5,6,9-TETRAHYDROCOUMARAN	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	4'-METHOXY-KAEMPFEROL	Leaf				--
0	4-ALPHA-DIMETHYLSTYRENE	Root				--
0	4-METHYL-AESCULETIN	Seed Essent. Oil				--
10	5-METHOXY-PSORALEN	Seed				--
0	6,7-DIHYDRO-8,8,DIMETHYL-2H,8H-BENZO-(1,2B:5,4')-DIPYRAN-2,6-DIONE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	6,7-DIHYDRO-8,8-DIMETHYL-2(H),8(H)BENZO-(1,2B,5,4B'-DIPYRAN-2-6-DIONE	Shoot		80.0		--
0	6,7-DIHYDRO-8,8-DIMETHYL-2(H),8(H)BENZO-(1,2B,5,4B'-DIPYRAN-2-6-DIONE	Seed				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	6-OCTADECENOIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	7-OCTADECENOIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
32	AESCULETIN	Seed				--
32	AESCULETIN	Seed Essent. Oil				--
0	ALPHA,ALPHA-BETA-TRIMETHYLBENZYL-ALCOHOL	Root				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	ALPHA-CADINENE	Leaf	1.0	3.0	-0.4224867804418495	--
0	ALPHA-CARVONE	Seed Essent. Oil		400000.0		--
0	ALPHA-CUBEBENE	Shoot				--
0	ALPHA-DIMETHYLSTYRENE	Root				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
15	ALPHA-LINOLENIC-ACID	Seed	1500.0	1624.0	-0.29885281200374875	USDA's Ag Handbook 8 and sequelae)
15	ALPHA-LINOLENIC-ACID	Fruit	1500.0	1624.0	-0.41702058222254973	--
0	ALPHA-P-DIMETHYL-STYRENE	Leaf	5.0	45.0	3.2968315661477114	--
0	ALPHA-P-DIMETHYL-STYRENE	Seed	10.0	75.0	-0.4800153607373193	--
0	ALPHA-P-DIMETHYL-STYRENE	Essential Oil				--
0	ALPHA-P-STYRENE	Shoot Essent. Oil		1800.0		--
11	ALPHA-PHELLANDRENE	Seed	125.0	7469.0	1.5339306210630879	--
11	ALPHA-PHELLANDRENE	Leaf	20.0	8025.0	5.376830730634647	--
11	ALPHA-PHELLANDRENE	Root Essent. Oil				--
11	ALPHA-PHELLANDRENE	Seed Essent. Oil				--
11	ALPHA-PHELLANDRENE	Shoot Essent. Oil	248800.0	525100.0	1.4141949197576593	--
11	ALPHA-PHELLANDRENE	Essential Oil				--
28	ALPHA-PINENE	Seed	12.0	1001.0	-0.394802482900677	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
28	ALPHA-PINENE	Leaf	25.0	405.0	-0.19825008164168667	--
28	ALPHA-PINENE	Seed Essent. Oil				--
28	ALPHA-PINENE	Shoot Essent. Oil	17500.0	31700.0	1.9801582592954505	--
28	ALPHA-PINENE	Essential Oil				--
28	ALPHA-PINENE	Fruit	24.0	1001.0	-0.4574419530274206	--
0	ALPHA-PYRONENE	Leaf	2.0	6.0		--
13	ALPHA-TERPINENE	Essential Oil				--
13	ALPHA-TERPINENE	Seed Essent. Oil				--
13	ALPHA-TERPINENE	Shoot Essent. Oil		3400.0	-0.7201742929072495	--
13	ALPHA-TERPINENE	Leaf	0.1	2100.0	0.7727809471570283	--
23	ALPHA-TERPINEOL	Plant				--
23	ALPHA-TERPINEOL	Essential Oil		83800.0	2.9380498160693636	--
23	ALPHA-TERPINEOL	Leaf	0.1	20.0	-0.5551409616382911	--
0	ALPHA-THUJENE	Shoot Essent. Oil		10600.0	0.6195817292104092	--
0	ALPHA-THUJENE	Fruit	36.0	231.0	-0.3826530299675151	--
0	ALPHA-THUJENE	Essential Oil				--
0	ALPHA-THUJENE	Leaf Essent. Oil		33400.0	1.3792500393171634	--
0	ALPHA-THUJENE	Seed	36.0	231.0	-0.09092270877057655	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-THUJENE	Leaf	10.0	25.0	-0.3676513337976657	--
32	ALPHA-TOCOPHEROL	Leaf	16.0	147.0	-0.6328641971482494	--
5	ALUMINUM	Plant	4.0	210.0	-0.3394094982503418	ACTA AGRIC SCAND SUPPL 22: 1980
0	ANETHOFURAN	Essential Oil		169000.0		--
36	ANETHOLE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	ANISIC-ALDEHYDE	Plant				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
101	APIGENIN	Leaf				--
0	APIGENIN-7-O-BETA-D-GLUCURONIDE	Leaf				--
2	APIOL	Seed				--
2	APIOL	Root Essent. Oil				--
2	APIOL	Shoot				--
2	APIOL	Essential Oil				--
20	APIOLE	Root				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	ARGINASE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
14	ARGININE	Seed	12630.0	13678.0	-0.46418798189668253	USDA's Ag Handbook 8 and sequelae)
14	ARGININE	Fruit	12630.0	13678.0	2.498859968309268	--
2	ARSENIC	Plant	0.01	0.06	-0.44843252644734777	ACTA AGRIC SCAND SUPPL 22: 1980
112	ASCORBIC-ACID	Plant	1214.0	1440.0	-0.2556325868627872	--
112	ASCORBIC-ACID	Seed		1150.0	0.35194448135668727	--
0	ASH	Plant	26000.0	205880.0	1.5332133347973154	--
0	ASH	Fruit	64000.0	84000.0	0.707881426838069	--
0	ASH	Seed	64000.0	84000.0	1.0864005763968383	--
0	BENZOIC-ACID-METHYL-ESTER	Seed Essent. Oil				--
0	BENZYL-ETHER	Plant				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	BENZYL-ETHER	Essential Oil				--
26	BERGAPTEN	Seed Essent. Oil				--
26	BERGAPTEN	Seed				--
26	BERGAPTEN	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	BETA-CARYOPHYLLENE	Essential Oil				--
0	BETA-CARYOPHYLLENE	Plant				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
5	BETA-ELEMENE	Seed	12.0	77.0	-0.6456318401912606	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	BETA-ELEMENE	Fruit	12.0	77.0	-0.4611977234510915	--
13	BETA-EUDESMOL	Essential Oil				--
2	BETA-MYRCENE	Plant				--
2	BETA-MYRCENE	Essential Oil				--
2	BETA-MYRCENE	Seed Essent. Oil				--
3	BETA-PHELLANDRENE	Seed	25.0	1925.0	-0.06920272549899337	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	BETA-PHELLANDRENE	Seed Essent. Oil				--
3	BETA-PHELLANDRENE	Root				--
3	BETA-PHELLANDRENE	Root Essent. Oil				--
3	BETA-PHELLANDRENE	Fruit	168.0	1925.0	-0.1401637043460988	--
3	BETA-PHELLANDRENE	Shoot Essent. Oil	82100.0	169300.0	1.0	--
3	BETA-PHELLANDRENE	Leaf	120.0	2100.0	4.5514578733129	--
3	BETA-PHELLANDRENE	Essential Oil		31600.0	1.724225349934716	--
13	BETA-PINENE	Essential Oil				--
13	BETA-PINENE	Shoot Essent. Oil				--
13	BETA-PINENE	Leaf Essent. Oil		13600.0	-0.3687230671050535	--
13	BETA-PINENE	Plant				--
13	BETA-PINENE	Leaf	1.0	40.0	-0.3701299985454314	--
47	BETA-SITOSTEROL	Seed Essent. Oil				--
47	BETA-SITOSTEROL	Plant		490.0	-0.10551968168882546	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
47	BETA-SITOSTEROL	Root				--
47	BETA-SITOSTEROL	Seed				--
0	BETA-SITOSTEROL-GLUCOSIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	BETA-SITOSTEROL-GLYCOSIDE	Fruit				--
0	BETA-SITOSTEROL-GLYCOSIDE	Seed				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
3	BETA-TERPINEOL	Fruit				--
3	BETA-TERPINEOL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	BETA-TERPINEOL	Plant				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
4	BORON	Seed	28.0	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).
4	BORON	Plant	4.0	35.0	-0.4551354442400374	--
0	BROMINE	Plant	1.0	6.0	-0.8145201350468994	ACTA AGRIC SCAND SUPPL 22: 1980
10	BUTYL-PHTHALIDE	Root				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.
3	CADMIUM	Plant	0.02	1.0	-0.33413040437309494	ACTA AGRIC SCAND SUPPL 22: 1980

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
102	CAFFEIC-ACID	Leaf		1140.0	-0.5577746068901522	--
102	CAFFEIC-ACID	Seed				--
102	CAFFEIC-ACID	Fruit				--
0	CALAMENENE	Leaf	1.0	3.0	-0.584716751803048	--
28	CALCIUM	Plant	1900.0	21453.0	0.8411434580787619	--
28	CALCIUM	Fruit	14003.0	17671.0	3.1878884648612305	--
28	CALCIUM	Seed	14003.0	17671.0	2.483896866251749	--
2	CAMPESTEROL	Plant		490.0	1.9454938284556806	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
9	CAMPHENE	Plant				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
41	CAMPHOR	Root				--
0	CARBOHYDRATES	Seed	551700.0	597491.0	0.2944435139648482	--
0	CARBOHYDRATES	Fruit	551700.0	597491.0	-0.9913792273955132	--
0	CARBOHYDRATES	Plant	558200.0	602000.0	-0.45327014330730514	--
0	CAROTENE	Seed				--
0	CAROTENOIDS	Leaf		465.0	1.0000000000000002	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
37	CARVACROL	Leaf	165.0	450.0	0.1349696974520959	--
37	CARVACROL	Plant				--
37	CARVACROL	Seed Essent. Oil				--
1	CARVEOL	Leaf	225.0	600.0	0.9999999999999998	Wealth of India.
19	CARVONE	Leaf	0.1	6365.0	1.0223609522154844	--
19	CARVONE	Seed Essent. Oil	170000.0	455800.0	-0.9391038099371176	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
19	CARVONE	Plant				--
19	CARVONE	Essential Oil	273800.0	456000.0	0.9613797011049258	--
19	CARVONE	Seed	4100.0	46200.0	1.3184783989470024	--
19	CARVONE	Leaf Essent. Oil		774300.0		--
19	CARVONE	Root				--
19	CARVONE	Shoot Essent. Oil		145000.0	1.4134474688959218	--
0	CARVOTANACETONE	Essential Oil				--
0	CARVOTANACETONE	Root Essent. Oil				--
0	CARVOTANACETONE	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CARVOTANACETONE	Fruit				--
77	CHLOROGENIC-ACID	Seed				--
77	CHLOROGENIC-ACID	Fruit				--
24	CHROMIUM	Plant	0.01	0.29	-0.8360358979548524	ACTA AGRIC SCAND SUPPL 22: 1980
0	CINEOLE	Plant				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	CIS-3-HEXEN-1-OL	Leaf	0.1	365.0	-0.4917978922098716	--
0	CIS-3-HEXEN-1-YL-ACETATE	Leaf	0.1	15.0		--
0	CIS-CARVEOL	Fruit				--
0	CIS-CARVEOL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CIS-DIHYDROCARVONE	Leaf	40.0	110.0		--
0	CIS-DIHYDROCARVONE	Essential Oil				--
0	CIS-DIHYDROCARVONE	Fruit	36.0	12782.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	CIS-DIHYDROCARVONE	Seed	36.0	12782.0	1.414205737599967	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CIS-LIGUSTILIDE	Root				--
3	CIS-OCIMENE	Essential Oil				--
2	COBALT	Plant	0.002	0.29	-0.4679399461194481	ACTA AGRIC SCAND SUPPL 22: 1980
12	COPPER	Fruit		8.0	-0.3750564717845157	--
12	COPPER	Seed		8.0	-0.6181060132518703	USDA's Ag Handbook 8 and sequelae)
12	COPPER	Plant	1.7	17.0	0.33037825900684764	--
0	COUMARINS	Seed				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	D-(+)-CARVONE	Seed	5196.0	37653.0		--
0	D-(+)-CARVONE	Fruit	5196.0	37653.0		--
0	D-(+)-DIHYDROCARVONE	Seed	168.0	1925.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	D-(+)-DIHYDROCARVONE	Fruit	168.0	1925.0		--
0	D-(+)-LIMONENE	Seed	3972.0	31416.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	D-(+)-LIMONENE	Fruit	3972.0	31416.0		--
0	D-8-DEHYDRO-P-CYMENE	Seed				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	D-ALPHA-PHELLANDRENE	Fruit	516.0	7469.0		--
0	D-ALPHA-PHELLANDRENE	Seed	516.0	7469.0	1.0	--
0	DECANAL	Fruit	24.0	154.0	1.7690158710879875	--
0	DECANAL	Seed	24.0	154.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
8	DELTA-3-CARENE	Leaf		0.1	-0.4906741021305423	--
0	DELTA-5,6-OCTADECENOIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
9	DELTA-CADINENE	Leaf	1.0	3.0	-0.4510248293697561	--
2	DIHYDROCARVEOL	Plant				Pakistan Encyclopedia Planta Medica. 1986.
2	DIHYDROCARVEOL	Leaf	150.0	400.0	0.916253604438744	--
0	DIHYDROCARVONE	Leaf	390.0	1050.0	-1.0	Wealth of India.
0	DIHYDROCARVONE	Root				--
0	DIHYDROCARVONE	Leaf Essent. Oil		1700.0		--
0	DIHYDROCARVONE	Essential Oil		400900.0	1.999909888648586	--
0	DIHYDROCARVONE	Seed Essent. Oil				--
0	DILL-ETHER	Seed	45.0	300.0		--
0	DILL-ETHER	Essential Oil				--
0	DILL-ETHER	Leaf	60.0	3495.0		--
0	DILL-ETHER	Shoot Essent. Oil		290200.0		--
0	DILL-FURAN	Essential Oil				--
0	DILLANOL	Seed				--
0	DILLANOSIDE	Plant				--
0	DILLANOSIDE	Seed				--
6	DILLAPIOL	Seed				--
6	DILLAPIOL	Root Essent. Oil				--
6	DILLAPIOL	Shoot Essent. Oil		3100.0		--
6	DILLAPIOL	Leaf Essent. Oil		200.0		--
6	DILLAPIOL	Essential Oil	223000.0	266300.0		--
6	DILLAPIOL	Plant				--
0	DILLAPIOLE	Fruit	1440.0	40425.0	1.0	--
0	DILLAPIOLE	Leaf	100.0	375.0		--
0	DILLAPIOLE	Seed	1440.0	40425.0	1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	DILLAPIONAL	Seed Essent. Oil				--
7	DIPENTENE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	EICOSANE	Root				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
16	ELEMICIN	Shoot Essent. Oil				--
16	ELEMICIN	Plant				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	EO	Seed	12000.0	77000.0	0.4229268931630007	--
0	EO	Leaf	1640.0	15000.0	0.30477802284223493	--
0	EO	Shoot				--
0	EO	Root	300.0	500.0	-0.631241020868696	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	EO	Plant	5600.0	15000.0	0.39984481264221844	--
0	EO	Fruit	12000.0	77000.0	0.6766879839519779	--
5	ERGOSTEROL	Seed Essent. Oil				--
30	ESCULETIN	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.
30	ESCULETIN	Fruit				--
76	EUGENOL	Essential Oil				--
76	EUGENOL	Leaf	280.0	750.0	-0.7280702362058284	--
76	EUGENOL	Plant				--
0	FAT	Seed	68000.0	180200.0	-0.44871351459820963	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	FAT	Plant	43000.0	47000.0	-0.06928247240962923	--
0	FAT	Fruit	68000.0	180200.0	0.7351010154890802	--
6	FENCHONE	Leaf	1.0	15.0	-0.40382222941102286	--
61	FERULIC-ACID	Seed				--
61	FERULIC-ACID	Fruit				--
15	FIBER	Fruit	177230.0	264869.0	1.1625047691716495	--
15	FIBER	Seed	177230.0	264869.0	1.0272142583335766	--
15	FIBER	Leaf	119300.0	128000.0	-0.41469774487153704	--
26	FLAVONE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	FLUORINE	Plant	0.1	5.3	-0.5842309569009599	ACTA AGRIC SCAND SUPPL 22: 1980
6	FURFURAL	Plant				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	GAMMA-PINENE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	GAMMA-SITOSTEROL	Seed				--
0	GAMMA-SITOSTEROL	Fruit				--
11	GAMMA-TERPINENE	Seed	12.0	77.0	-0.8148071104880178	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	GAMMA-TERPINENE	Fruit	12.0	77.0	-0.6371546249494475	--
11	GAMMA-TERPINENE	Leaf	0.1	30.0	-0.314079686023923	--
35	GERANIOL	Seed	24.0	154.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
35	GERANIOL	Fruit	24.0	154.0	0.33290806848468324	--
2	GERMACRENE-D	Leaf	70.0	190.0	-0.37126607051679333	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	HEXADECANE	Root				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
7	HISTIDINE	Seed	3200.0	3466.0	-0.7066452608029122	USDA's Ag Handbook 8 and sequelae)
7	HISTIDINE	Fruit	3200.0	3466.0	1.229336833484955	--
30	HYPEROSIDE	Leaf				--
25	IMPERATORIN	Seed Essent. Oil				--
6	IRON	Plant	23.0	755.0	0.1508119809777941	--
6	IRON	Seed	114.0	230.0	0.3680195076933262	--
6	IRON	Fruit	114.0	230.0	0.3848598276758552	--
6	IRON	Leaf				--
0	ISODILLAPIOL	Essential Oil				--
16	ISOEUGENOL	Plant				Pakistan Encyclopedia Planta Medica. 1986.
3	ISOLEUCINE	Fruit	7670.0	8307.0	1.4023694860203781	--
3	ISOLEUCINE	Seed	7670.0	8307.0	-0.2787525308175236	USDA's Ag Handbook 8 and sequelae)
0	ISOMYRISTICIN	Leaf				Wealth of India.
0	ISOPIPERITENONE	Shoot Essent. Oil		4000.0		--
22	ISOQUERCITRIN	Leaf				--
11	ISORHAMNETIN	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	ISORHAMNETIN-3-GLUCURONIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	ISORHOIFOLIN	Leaf				--
0	ISOTHYMOL	Leaf	2.0	5.0		--
75	KAEMPFEROL	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
75	KAEMPFEROL	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	KAEMPFEROL-3-GLUCURONIDE	Leaf				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	KAEMPFEROL-3-O-BETA-D-GLUCURONIDE	Seed				--
0	KAEMPFEROL-GLYCOFLAVONE	Seed				--
7	LAURIC-ACID	Fruit	100.0	108.0	-0.4441927698072271	--
7	LAURIC-ACID	Seed	100.0	108.0	-0.5113625956002235	USDA's Ag Handbook 8 and sequelae)
0	LEAD	Plant	0.05	0.8	-0.5492766752904812	ACTA AGRIC SCAND SUPPL 22: 1980
2	LEUCINE	Fruit	9250.0	10018.0	1.0452643502878531	--
2	LEUCINE	Seed	9250.0	10018.0	-0.6761051130330088	USDA's Ag Handbook 8 and sequelae)
60	LIMONENE	Root Essent. Oil				--
60	LIMONENE	Seed Essent. Oil				--
60	LIMONENE	Leaf Essent. Oil		214300.0	0.2690608628408047	--
60	LIMONENE	Plant				--
60	LIMONENE	Shoot Essent. Oil		119200.0	0.3094342045722538	--
60	LIMONENE	Leaf	125.0	3735.0	3.4814383627388343	--
60	LIMONENE	Essential Oil	467000.0	628800.0	2.882227993253224	--
0	LINALOL	Plant				--
53	LINALOOL	Essential Oil				--
53	LINALOOL	Plant				Pakistan Encyclopedia Planta Medica. 1986.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
7	LINALYL-ACETATE	Seed				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
27	LINOLEIC-ACID	Fruit	9600.0	10397.0	-0.2087139721578888	--
27	LINOLEIC-ACID	Seed	9600.0	10397.0	-0.828751087439793	USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Plant				--
7	LUTEOLIN-7-GLUCOSIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	LUTEOLIN-GLYCOSIDE	Seed				--
4	LYSINE	Seed	10380.0	11242.0	-0.11603254287698407	USDA's Ag Handbook 8 and sequelae)
4	LYSINE	Fruit	10380.0	11242.0	1.8459850057143503	--
65	MAGNESIUM	Plant	560.0	6470.0	0.7461924242723924	--
65	MAGNESIUM	Fruit	2449.0	2893.0	0.3534351875253372	--
65	MAGNESIUM	Seed	2449.0	2893.0	-0.02098100116423311	USDA's Ag Handbook 8 and sequelae)
14	MANGANESE	Plant	8.0	435.0	2.4228210372847276	--
14	MANGANESE	Fruit		18.0	-0.2848478380503656	--
14	MANGANESE	Seed		18.0	-0.4424804207753204	USDA's Ag Handbook 8 and sequelae)
1	MERCURY	Plant	0.003	0.06	-0.5009617770057098	ACTA AGRIC SCAND SUPPL 22: 1980
15	METHIONINE	Fruit	1430.0	1549.0	0.7271352318996868	--
15	METHIONINE	Seed	1430.0	1549.0	-0.7141817868825112	USDA's Ag Handbook 8 and sequelae)
4	METHYL-BENZOATE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
6	METHYL-CHAVICOL	Fruit				--
6	METHYL-CHAVICOL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	MOLYBDENUM	Plant		0.1	-0.7655179249334362	ACTA AGRIC SCAND SUPPL 22: 1980
22	MYRCENE	Leaf	15.0	115.0	-0.1311775014332694	--
22	MYRCENE	Seed	20.0	924.0	-0.5501224655274027	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
22	MYRCENE	Essential Oil				--
22	MYRCENE	Shoot Essent. Oil		15600.0	-0.4397404959457284	--
22	MYRCENE	Fruit	84.0	924.0	-0.24028812670479283	--
6	MYRISTIC-ACID	Seed	100.0	108.0	-0.294589404195434	USDA's Ag Handbook 8 and sequelae)
6	MYRISTIC-ACID	Fruit	100.0	108.0	-0.2640487123172083	--
31	MYRISTICIN	Seed				--
31	MYRISTICIN	Shoot Essent. Oil		2000.0		--
31	MYRISTICIN	Leaf	45.0	220.0	-0.83677421638605	--
31	MYRISTICIN	Essential Oil		203000.0	1.0	--
31	MYRISTICIN	Root Essent. Oil				--
31	MYRISTICIN	Root				--
31	MYRISTICIN	Fruit				--
1	N-BUTYLPHTHALIDE	Root				--
0	N-UNDECANE	Leaf	3.0	70.0		--
0	NEOCNIDILIDE	Root				--
2	NEOCNIDOLIDE	Root				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	NEOPHYTADIENE	Leaf	25.0	75.0		--
39	NIACIN	Plant	28.0	30.0	-0.6546703629814054	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
39	NIACIN	Seed	28.0	30.0	-0.3857324434479313	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
39	NIACIN	Fruit	28.0	30.0	-0.41038049882634875	--
3	NICKEL	Plant	0.1	4.7	-0.9948320067476139	ACTA AGRIC SCAND SUPPL 22: 1980

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	NITROGEN	Plant	6800.0	55300.0	2.123792178566495	ACTA AGRIC SCAND SUPPL 22: 1980
0	NONADECANE	Root				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	NONANAL	Seed				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	NONANAL	Fruit				--
0	OCTADECA-5,6-DIENOIC-ACID	Seed Oil				--
0	OCTAN-1-AL	Root Essent. Oil				--
0	OCTANOL	Root				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
18	OLEIC-ACID	Fruit	93600.0	101369.0	0.30053967859239455	--
18	OLEIC-ACID	Seed	78000.0	101369.0	-0.14578751292878622	--
18	OLEIC-ACID	Plant				--
4	OSTHOLE	Root				Wealth of India.
25	P-COUMARIC-ACID	Leaf		16.0	-0.34577655264533097	--
16	P-CYMENE	Leaf	30.0	4460.0	3.3052402930466984	--
16	P-CYMENE	Root Essent. Oil				--
16	P-CYMENE	Seed Essent. Oil				--
16	P-CYMENE	Essential Oil				--
16	P-CYMENE	Leaf Essent. Oil		21700.0	-0.45620901588660095	--
16	P-CYMENE	Shoot				--
16	P-CYMENE	Fruit	336.0	3773.0	-0.08029864689784445	--
16	P-CYMENE	Seed	40.0	3775.0	0.2503968578555244	--
0	P-CYMENE-8-OL	Leaf	2.0	6.0	1.0000000000000002	--
0	P-MENTHA-1,3,8-TRIENE	Leaf	5.0	45.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	P-MENTHA-2,4(8)-DIENE	Essential Oil				--
13	PALMITIC-ACID	Plant				--
13	PALMITIC-ACID	Fruit	5800.0	6281.0	-0.26775372349168214	--
13	PALMITIC-ACID	Seed	5800.0	6281.0	-0.5700036394768608	USDA's Ag Handbook 8 and sequelae)
2	PALMITOLEIC-ACID	Seed	500.0	542.0	-0.28545713507529	USDA's Ag Handbook 8 and sequelae)
2	PALMITOLEIC-ACID	Fruit	500.0	542.0	-0.24636918327436183	--
2	PALMITOLEIC-ACID	Plant				--
4	PARAFFIN	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	PENTADECANE	Root				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	PERSICARIN	Seed				--
0	PERSICARIN	Shoot		580.0		--
0	PETROSELINIC-ACID	Seed		816000.0	1.179419422049027	--
0	PETROSELINIC-ACID	Plant				--
0	PETROSELINIC-ACID-TRIGYLCERIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
4	PHELLANDRENE	Essential Oil				--
7	PHENYLALANINE	Fruit	6700.0	7256.0	1.3630311294640811	--
7	PHENYLALANINE	Seed	6700.0	7256.0	-0.5116370330548264	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Fruit	2102.0	3723.0	0.153997696991918	--
4	PHOSPHORUS	Seed	2102.0	3723.0	-0.430835600149335	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Plant	600.0	7625.0	1.9396126413461277	--
0	PHYTOCHELATIN-A	Tissue Culture				--
0	PHYTOFLUENE	Seed				Wealth of India.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
2	PHYTOSTEROLS	Plant		1240.0	0.15885150061665407	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
61	PIPERINE	Seed		28.6	-1.0	--
0	PIPERITOL	Leaf	5.0	20.0	1.0	--
14	POTASSIUM	Seed	10680.0	14122.0	0.13648348307387825	USDA's Ag Handbook 8 and sequelae)
14	POTASSIUM	Plant	8700.0	76450.0	3.8114363499495174	--
14	POTASSIUM	Fruit	10680.0	14122.0	-0.33571380248517246	--
0	PROTEIN	Plant	199600.0	216000.0	0.34857195641171973	--
0	PROTEIN	Fruit	147680.0	226000.0	1.5617527309713977	--
0	PROTEIN	Seed	147680.0	226000.0	-0.06935005803918042	--
176	QUERCETIN	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	QUERCETIN-3-0-RUTINOSIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	QUERCETIN-3-GLUCURONIDE	Seed				--
0	QUERCETIN-3-GLUCURONIDE	Leaf				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
2	QUERCETIN-3-O-BETA-D-GLUCURONIDE	Shoot				--
2	QUERCETIN-3-O-BETA-D-GLUCURONIDE	Leaf				--
4	QUERCETIN-3-RHAMNOGLUCOSIDE	Leaf				--
0	QUERCETIN-3-SULFATE	Seed				--
0	QUERCETIN-3-SULFATE	Shoot		770.0		--
44	QUERCITRIN	Plant				Pakistan Encyclopedia Planta Medica. 1986.
44	QUERCITRIN	Seed		500.0		--
15	RIBOFLAVIN	Fruit		3.0	-0.4303249009534089	--
15	RIBOFLAVIN	Seed		3.0	-0.20090831129253928	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
15	RIBOFLAVIN	Plant		3.0	-0.5861819139119265	USDA's Ag Handbook 8 and sequelae)
57	ROSMARINIC-ACID	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	RUBIDIUM	Plant	1.1	28.0	0.3807624787725667	ACTA AGRIC SCAND SUPPL 22: 1980
87	RUTIN	Leaf		1400.0	-0.9176299796056019	Varnaite, R. 1988. Rutin Content in Capsicum, Capsella, Urtica, Primula, Lepidium, Lactuca, Brassica, Anethum, Beta, Petroselinum, Allium Genera Representatives. Liet Tsr Mokslu Akad Darb Ser C, 4: 29-32.
5	SABINENE	Essential Oil				--
5	SABINENE	Leaf	5.0	15.0	-0.25165177043728276	--
5	SABINENE	Plant				--
5	SABINOL	Shoot Essent. Oil		5000.0		--
5	SABINOL	Leaf	1.0	3.0	-1.3518433080577976	--
29	SAFROLE	Seed Essent. Oil				--
29	SAFROLE	Plant	125.0	360.0	0.554163659253734	--
0	SALICALDEHYDE	Plant				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
7	SALICYLATES	Seed	70.0	945.0	4.730027580498452	--
44	SCOPOLETIN	Seed Essent. Oil				--
44	SCOPOLETIN	Root				--
44	SCOPOLETIN	Seed				--
44	SCOPOLETIN	Shoot		2.0		--
44	SCOPOLETIN	Fruit				--
60	SELENIUM	Plant	0.001	0.012	-0.42698636145174623	ACTA AGRIC SCAND SUPPL 22: 1980

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	SENKYUNOLIDE	Root				--
4	SILICON	Plant	30.0	700.0	3.674360216691932	ACTA AGRIC SCAND SUPPL 22: 1980
1	SODIUM	Plant	1097.0	3308.0	-0.12095943629882361	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Fruit	158.0	262.0	-0.15910562070334694	--
1	SODIUM	Seed	158.0	262.0	-0.29981285993350754	USDA's Ag Handbook 8 and sequelae)
8	STEARIC-ACID	Fruit	1000.0	1083.0	-0.2073990310361778	--
8	STEARIC-ACID	Seed	1000.0	1083.0	-0.541892617814625	USDA's Ag Handbook 8 and sequelae)
12	STIGMASTEROL	Root				--
12	STIGMASTEROL	Seed Essent. Oil				--
12	STIGMASTEROL	Plant		420.0	1.1614156001580258	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
14	SULFUR	Plant	1400.0	11175.0	3.111094705278092	ACTA AGRIC SCAND SUPPL 22: 1980
0	TANNINS	Plant				Pakistan Encyclopedia Planta Medica. 1986.
23	TERPINEN-4-OL	Leaf	5.0	15.0	-0.33175766291960446	--
23	TERPINEN-4-OL	Seed	0.1	77.0	-0.6507040021716104	--
23	TERPINEN-4-OL	Fruit	12.0	77.0	-0.3466854896821412	--
23	TERPINEN-4-OL	Essential Oil				--
9	TERPINOLENE	Leaf	0.1	50.0	-0.1684008925639172	--
0	TETRADECANE	Root				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	TETRAHYDROCOUMARANE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
31	THIAMIN	Seed	4.0	5.0	-0.37795068225120004	USDA's Ag Handbook 8 and sequelae)
31	THIAMIN	Plant	4.0	5.0	-0.2209949208584362	USDA's Ag Handbook 8 and sequelae)
31	THIAMIN	Fruit	4.0	5.0	-0.0425885992841977	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
4	THREONINE	Fruit	5750.0	6227.0	1.3340819873960998	--
4	THREONINE	Seed	5750.0	6227.0	-0.4273575247230049	USDA's Ag Handbook 8 and sequelae)
71	THYMOL	Shoot Essent. Oil		1600.0	-0.6613738654809941	--
1	TOLUENE	Shoot Essent. Oil				--
0	TRANS-2-HEXEN-1-OL	Leaf	0.1	15.0	-1.0	--
8	TRANS-ANETHOLE	Fruit	12.0	539.0	-0.9826483469276708	--
8	TRANS-ANETHOLE	Seed	12.0	539.0	-1.3057099249333581	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-BETA-OCIMENE	Leaf	6.0	20.0	-0.7318152701857925	--
1	TRANS-CARVEOL	Fruit	42.0	270.0	1.0	--
1	TRANS-CARVEOL	Seed	42.0	270.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	TRANS-DIHYDROCARVONE	Seed	24.0	1370.0	1.0	--
0	TRANS-DIHYDROCARVONE	Essential Oil				--
0	TRANS-DIHYDROCARVONE	Leaf	100.0	290.0		--
0	TRANS-DIHYDROCARVONE	Fruit	24.0	154.0	-1.0	--
0	TRANS-P-MENTHA-2-EN-OL	Leaf	10.0	30.0		--
0	TRIDECENE	Root				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
22	UMBELLIFERONE	Seed				--
22	UMBELLIFERONE	Seed Essent. Oil				--
22	UMBELLIFERONE	Root				--
22	UMBELLIFERONE	Fruit				--
0	UMBELLIPRENIN	Seed				--
0	UMBELLIPRENIN	Seed Essent. Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	UMBELLIPRENIN	Fruit				--
1	URANIUM	Root		7.9	0.9999999999999998	Wealth of India.
1	URANIUM	Leaf		0.16		Wealth of India.
0	UREASE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
3	VALINE	Seed	11200.0	12130.0	0.014590043883791455	USDA's Ag Handbook 8 and sequelae)
3	VALINE	Fruit	11200.0	12130.0	1.5839770667175401	--
16	VANADIUM	Leaf		0.84	-0.8876491141170819	Wealth of India.
3	VICENIN	Fruit				--
3	VICENIN	Seed				--
1	VITAMIN-K	Seed	50.0	200.0		--
0	VITAMIN-P	Leaf				Wealth of India.
0	WATER	Plant	73000.0	830000.0	0.2528779846519487	--
0	WATER	Seed	70310.0	83690.0	-0.5522699422938635	USDA's Ag Handbook 8 and sequelae)
0	WATER	Fruit	70310.0	83690.0	-2.9866434775739372	--
3	XANTHOPHYLL	Fruit				--
3	XANTHOPHYLL	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
43	XANTHOTOXIN	Seed				--
2	Z-LIGUSTILIDE	Root				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.
77	ZINC	Plant	11.0	150.0	0.9651488572052452	--
77	ZINC	Seed	43.0	66.0	0.592445203168114	USDA's Ag Handbook 8 and sequelae)
77	ZINC	Fruit	43.0	66.0	1.0740192620721936	--