

## Dr. Duke's Phytochemical and Ethnobotanical Databases

### Chemicals found in Carica papaya

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	(E)-BETA-OCIMENE	Fruit				--
0	(Z)-BETA-OCIMENE	Fruit				--
0	2,6-DIMETHYL-OCT-7-ENE-2,3,6-TRIOL	Fruit Essent. Oil				Jim Duke's personal files.
0	2,6-DIMETHYL-OCTA-1,7-DIENE-3,6-DIOL	Fruit Essent. Oil				Jim Duke's personal files.
0	2,6-DIMETHYL-OCTA-3,7-DIENE-2,6-DIOL	Fruit Essent. Oil				Jim Duke's personal files.
0	2,6-DIMETHYL-OCTA-CIS-2,7-DIENE-1,6-DIOL	Fruit Essent. Oil				Jim Duke's personal files.
0	2,6-DIMETHYL-OCTA-TRANS-2,7-DIENE-1,6-DIOL	Fruit Essent. Oil				Jim Duke's personal files.
0	2-METHYL-BUTAN-1-AL	Fruit		0.006		Jim Duke's personal files.
0	24-METHYLENE-CYCLOARTENOL	Seed Oil				Jim Duke's personal files.
0	3-METHYL-BUTYL-BENZOATE	Fruit				--
0	4-HYDROXY-4-METHYL-PENTAN-2-ONE	Fruit				--
8	4-TERPINEOL	Fruit				--
0	5,6-MONOEPOXI-BETA-CAROTENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	5-DEHYDRO-AVENASTEROL	Seed Oil				Jim Duke's personal files.
15	5-HYDROXYTRYPTAMINE	Plant				Jim Duke's personal files.
0	6,7-EPOXY-LINALOOL	Fruit Essent. Oil				Jim Duke's personal files.
0	6-METHYLKEPT-5-EN-2-ONE	Fruit				--
0	7-DEHYDRO-AVENASTEROL	Seed Oil				Jim Duke's personal files.
3	ALANINE	Fruit	140.0	1253.0	-0.9646875161658541	USDA's Ag Handbook 8 and sequelae)
0	ALKALOIDS	Leaf	1300.0	1500.0	-0.5088573165279121	--
15	ALPHA-LINOLENIC-ACID	Fruit	250.0	2238.0	-0.1389637310912248	USDA's Ag Handbook 8 and sequelae)
11	ALPHA-PHELLANDRENE	Fruit				--
13	ALPHA-TERPINENE	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
32	ALPHA-TOCOPHEROL	Leaf				Jim Duke's personal files.
0	AMYL-ACETATE	Fruit				--
1	ANTHERAXANTHIN	Fruit				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	ARACHIDIC-ACID	Seed Oil	5000.0	10000.0	0.12115877505042544	Jim Duke's personal files.
0	ARACHIDIC-ACID	Fruit				Jim Duke's personal files.
0	ARACHIDIC-ACID	Flower				Jim Duke's personal files.
14	ARGININE	Fruit	100.0	895.0	-0.9108448929638525	USDA's Ag Handbook 8 and sequelae)
112	ASCORBIC-ACID	Leaf	1400.0	6222.0	0.13340221850054146	--
112	ASCORBIC-ACID	Fruit	640.0	4741.0	0.010292117056281466	--
0	ASH	Seed		88000.0	1.2067110962539076	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ASH	Leaf	22000.0	154000.0	0.619270031345806	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	ASH	Fruit	2970.0	22000.0	-0.8976301135791823	--
3	ASPARTIC-ACID	Fruit	490.0	4387.0	-0.7582452723944939	USDA's Ag Handbook 8 and sequelae)
1	BEHENIC-ACID	Seed Oil		16000.0	0.29658976365227746	Jim Duke's personal files.
1	BEHENIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
24	BENZALDEHYDE	Fruit		300.0	-0.06377099858893052	--
9	BENZYL-ALCOHOL	Fruit		0.0	-0.7177394965097122	Jim Duke's personal files.
0	BENZYL-GLUCOSINOLATE	Latex Exudate		116000.0		Jim Duke's personal files.
0	BENZYL-GLUCOSINOLATE	Fruit				Jim Duke's personal files.
20	BENZYL-ISOTHIOCYANATE	Seed	2000.0	5000.0	-1.0	Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
20	BENZYL-ISOTHIOCYANATE	Fruit	0.001	291.0		--
0	BENZYLSENEVOL	Seed				--
0	BETA-BETA-CAROTENE	Leaf				Jim Duke's personal files.
0	BETA-BETA-CAROTENE-3-DIOL	Leaf				Jim Duke's personal files.
53	BETA-CAROTENE	Pericarp				Jim Duke's personal files.
53	BETA-CAROTENE	Seed Oil				Jim Duke's personal files.
53	BETA-CAROTENE	Leaf	116.0	514.0	1.1005033579469683	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
53	BETA-CAROTENE	Fruit				--
0	BETA-CAROTENE-5,6-EPOXIDE	Fruit				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	BETA-CRYPTOXANTHIN-PALMITATE	Fruit				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	BETA-EPSILON-CAROTENE	Leaf				Jim Duke's personal files.
3	BETA-PHELLANDRENE	Fruit				--
0	BETA-PSEUDOCAROTENE	Leaf				Jim Duke's personal files.
47	BETA-SITOSTEROL	Seed Oil				Jim Duke's personal files.
47	BETA-SITOSTEROL	Leaf				Jim Duke's personal files.
47	BETA-SITOSTEROL	Seed				Jim Duke's personal files.
47	BETA-SITOSTEROL	Fruit				Jim Duke's personal files.
47	BETA-SITOSTEROL	Flower				Jim Duke's personal files.
4	BORON	Fruit	5.0	15.0	-0.5018987122156774	--
0	BUT-2-ENOIC-ACID-BENZYL-ESTER	Fruit		0.0		Jim Duke's personal files.
0	BUT-2-ENOIC-ACID-METHYL-ESTER	Fruit		0.0		Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BUTANEDIONE	Fruit				Jim Duke's personal files.
0	BUTANOIC-ACID	Fruit		1.2		Jim Duke's personal files.
0	BUTANOIC-ACID-METHYL-ESTER	Fruit		0.047		Jim Duke's personal files.
0	BUTYL-ACETATE	Fruit				Jim Duke's personal files.
2	BUTYL-ALCOHOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	BUTYL-BENZOATE	Fruit				--
0	BUTYL-HEXANOATE	Fruit				--
102	CAFFEIC-ACID	Leaf				Jim Duke's personal files.
28	CALCIUM	Leaf	3440.0	23800.0	0.36642881915355097	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
28	CALCIUM	Fruit	159.0	1180.0	-0.6175808503755033	--
0	CALLOSE	Latex Exudate				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	CAMPESTEROL	Seed Oil				Jim Duke's personal files.
0	CAOUTCHOUC	Latex Exudate		45000.0	-0.24590586593070748	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	CAPROIC-ACID	Fruit				Jim Duke's personal files.
0	CARBOHYDRATES	Seed		155000.0	-1.4641051144109738	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	CARBOHYDRATES	Leaf	113000.0	556000.0	-0.4441509020941317	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	CARBOHYDRATES	Fruit	124065.0	919000.0	0.7278946208977922	--
0	CARICA-PAPAYA-ALKALOID-(C-11-H-14-N-2-O)	Leaf		2.8		Jim Duke's personal files.
0	CARICA-PAPAYA-AMYLASE	Fruit				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CARICA-PAPAYA-ANTICOAGULANT	Latex Exudate				Jim Duke's personal files.
0	CARICA-PAPAYA-POLYSACCHARIDE	Latex Exudate				Jim Duke's personal files.
0	CARICA-PAPAYA-POLYSACCHARIDE-PP-I	Latex Exudate				Jim Duke's personal files.
0	CARICA-PAPAYA-POLYSACCHARIDE-PP-II	Latex Exudate				Jim Duke's personal files.
0	CARICACIN	Plant				Jim Duke's personal files.
0	CARICIN	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	CAROTENOIDS	Fruit	10.0	138.0	-0.4785627182338816	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
17	CARPAIN	Root				--
17	CARPAIN	Leaf	150.0	4000.0		--
17	CARPAIN	Bark				--
17	CARPAIN	Fruit		200.0		Jim Duke's personal files.
17	CARPAIN	Seed				--
17	CARPAIN	Plant				Jim Duke's personal files.
0	CARPASAMINE	Seed		3500.0		Jim Duke's personal files.
0	CARPAEMINE	Seed		3500.0		--
4	CARPOSIDE	Leaf				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
31	CARYOPHYLENE	Fruit				--
1	CHOLESTEROL	Seed Oil				Jim Duke's personal files.
20	CHOLINE	Leaf		200.0	-0.47726562792110133	Jim Duke's personal files.
24	CHROMIUM	Fruit	0.1	1.0	-0.3671750908546996	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CHRYSANTHEMEXANTHIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	CHYMOPAPAIN	Latex Exudate				--
0	CHYMOPAPAIN-A	Latex Exudate				--
0	CHYMOPAPAIN-B	Latex Exudate				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CIS-LINALOOL-OXIDE	Fruit		0.007		Jim Duke's personal files.
23	CITRIC-ACID	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	COBALT	Fruit	2.0	14.0	1.1597144135765933	--
12	COPPER	Fruit	0.1	5.0	-0.6085448044834153	--
0	COTININE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	COTININE	Leaf		27.8		Jim Duke's personal files.
2	CRYPTOXANTHIN	Pericarp				Jim Duke's personal files.
0	CRYPTOXANTHIN-MONOEOXIDE	Pericarp				Jim Duke's personal files.
0	CYCLOARTANOL	Seed Oil				Jim Duke's personal files.
7	CYCLOARTENOL	Seed Oil				Jim Duke's personal files.
0	CYCLOBRANOL	Seed Oil				Jim Duke's personal files.
0	D-GALACTOSE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	D-GALACTURONIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DECANAL	Fruit				--
0	DEHYDROCARPAINE-I	Leaf				Jim Duke's personal files.
0	DEHYDROCARPAINE-II	Leaf				Jim Duke's personal files.
0	DEHYDROCARPAINES	Leaf		1000.0		Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
0	DEHYDROCARPAMINES	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	DELTA-5-STIGMASTEROL	Seed Oil				Jim Duke's personal files.
0	DELTA-OCTALACTONE	Fruit		0.0	-1.0	Jim Duke's personal files.
0	EO	Seed		900.0	-0.5391224836655536	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	EPSILON-CAROTENE	Pericarp				Jim Duke's personal files.
1	EPSILON-CAROTENE	Fruit				--
24	ETHANOL	Fruit				Jim Duke's personal files.
6	ETHYL-ACETATE	Fruit				--
0	ETHYL-ALCOHOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	ETHYL-BENZOATE	Fruit				--
1	ETHYL-BUTYRATE	Fruit				--
0	ETHYL-OCTANOATE	Fruit				--
0	FAT	Leaf	8000.0	136000.0	1.584934648662207	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	FAT	Fruit	2970.0	22000.0	-0.4732178594145328	--
0	FAT	Seed		253000.0	-0.06524987409706533	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	FAT	Latex Exudate		24000.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	FATTY-ACIDS	Seed Oil				Jim Duke's personal files.
15	FIBER	Seed		170000.0	0.27811243148773734	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
15	FIBER	Leaf	18000.0	145000.0	-0.20447325046745057	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	FIBER	Fruit	5000.0	92198.0	-0.46690178925800363	--
0	FIBER(CRUDE)	Fruit		44000.0	-1.259564822908674	--
0	FIBER(DIETARY)	Fruit		300000.0	-1.302068533036617	--
0	FIXED-OIL	Seed		250000.0	-0.07337682878990565	Jim Duke's personal files.
0	FLAVONOLS	Leaf	0.0	2000.0	1.0	--
8	FRUCTOSE	Leaf				Jim Duke's personal files.
8	FRUCTOSE	Bark				Jim Duke's personal files.
8	FRUCTOSE	Fruit				Jim Duke's personal files.
7	FUMARIC-ACID	Fruit	3150.0	23333.0	1.4090927316950586	--
1	GALACTOSE	Bark				Jim Duke's personal files.
2	GAMMA-CAROTENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	GAMMA-OCTALACTONE	Fruit				--
11	GAMMA-TERPINENE	Fruit				--
8	GENTISIC-ACID	Leaf				Jim Duke's personal files.
2	GERANYL-ACETONE	Fruit				--
2	GERMACRENE-D	Fruit				--
7	GLUCOSE	Leaf				Jim Duke's personal files.
7	GLUCOSE	Bark				Jim Duke's personal files.



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	GLUCOSE	Fruit				Jim Duke's personal files.
0	GLUCOTROPAEOLIN	Plant				--
8	GLUTAMIC-ACID	Fruit				USDA's Ag Handbook 8 and sequelae)
12	GLYCINE	Fruit	180.0	1611.0	-0.7711938117552699	USDA's Ag Handbook 8 and sequelae)
0	HEPTAN-2-ONE	Fruit				--
0	HEPTANAL	Fruit				--
0	HEX-2-ENOIC-ACID-METHYL-ESTER	Fruit		0.0		Jim Duke's personal files.
0	HEXADECENOIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	HEXADECENOIC-ACID	Seed Oil		8000.0		Jim Duke's personal files.
5	HEXANAL	Fruit				--
0	HEXANOIC-ACID-METHYL-ESTER	Fruit		0.0	-1.0	Jim Duke's personal files.
1	HEXYL-ACETATE	Fruit				Jim Duke's personal files.
0	HEXYL-ALCOHOL	Fruit				Jim Duke's personal files.
7	HISTIDINE	Fruit	50.0	448.0	-0.8866430953186365	USDA's Ag Handbook 8 and sequelae)
6	IRON	Leaf	8.0	38.0	-0.824258114808842	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
6	IRON	Fruit	0.4	3.0	-0.5155879913303996	--
2	ISOAMYL-ACETATE	Fruit				--
3	ISOBUTYL-ACETATE	Fruit				Jim Duke's personal files.
2	ISOBUTYL-ALCOHOL	Fruit				Jim Duke's personal files.
3	ISOLEUCINE	Fruit	80.0	716.0	-0.8775495343550369	USDA's Ag Handbook 8 and sequelae)
2	ISOPROPYL-ALCOHOL	Fruit				Jim Duke's personal files.
0	KILOCALORIES	Leaf		740.0	-3.6720692567684576	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	KILOCALORIES	Fruit	231.0	3491.0	-0.25752020169822265	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	KRYPTOFLAVIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	KRYPTOXANTHIN	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
7	LAURIC-ACID	Flower				Jim Duke's personal files.
7	LAURIC-ACID	Leaf				Jim Duke's personal files.
7	LAURIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	LAURIC-ACID	Seed Oil		4000.0	-0.7012763853261376	Jim Duke's personal files.
7	LAURIC-ACID	Fruit	10.0	90.0	-0.4444146432555388	--
2	LEUCINE	Fruit	160.0	1432.0	-0.7800180381461054	USDA's Ag Handbook 8 and sequelae)
1	LIGNOCERIC-ACID	Seed Oil				Jim Duke's personal files.
0	LINALOL	Fruit				--
0	LINALOL-OXIDE-A	Fruit				--
0	LINALOL-OXIDE-B	Fruit				--
53	LINALOOL	Fruit		0.0	-0.5857755812776223	--
0	LINALOOL-OXIDE-A	Fruit				--
0	LINALOOL-OXIDE-B	Fruit				--
27	LINOLEIC-ACID	Flower				Jim Duke's personal files.
27	LINOLEIC-ACID	Leaf				Jim Duke's personal files.
27	LINOLEIC-ACID	Seed Oil		4000.0	-1.5223259403119926	Jim Duke's personal files.
27	LINOLEIC-ACID	Seed		5389.0	-0.871660128625913	--
27	LINOLEIC-ACID	Fruit	60.0	537.0	-0.347823614663473	--
0	LINOLENIC-ACID	Seed Oil				Jim Duke's personal files.
16	LYCOPENE	Pericarp				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
16	LYCOPENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	LYSINE	Fruit	250.0	2238.0	-0.48599361292492554	USDA's Ag Handbook 8 and sequelae)
0	LYSOZYME	Latex Exudate				Jim Duke's personal files.
65	MAGNESIUM	Fruit	110.0	815.0	-0.608799543813469	--
15	MALIC-ACID	Latex Exudate		4400.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
15	MALIC-ACID	Fruit	3150.0	23333.0	0.567329421438877	--
14	MANGANESE	Fruit	0.1	1.0	-0.3969436204051225	--
2	METHANOL	Fruit				Jim Duke's personal files.
15	METHIONINE	Fruit	10.0	179.0	-0.9599249017247726	--
3	METHYL-ACETATE	Fruit				--
0	METHYL-ALCOHOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	METHYL-CYCLOHEXANE	Fruit		0.005	-1.0	Jim Duke's personal files.
0	METHYL-GERANATE	Fruit				--
0	METHYL-HEXANOATE	Fruit				--
0	METHYL-NICOTINATE	Fruit		0.001		Jim Duke's personal files.
0	METHYL-OCTANOATE	Fruit				--
21	METHYL-SALICYLATE	Fruit				--
0	METHYL-THIOCYANATE	Fruit				--
13	MUFA	Fruit	380.0	3402.0	-0.2044785517519125	USDA's Ag Handbook 8 and sequelae)
0	MUTATOCHROM	Fruit				--
0	MUTATOCHROME	Fruit				--
2	MYOSMINE	Leaf		1.4		Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	MYOSMINE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
22	MYRCENE	Fruit				--
6	MYRISTIC-ACID	Seed				--
6	MYRISTIC-ACID	Fruit	70.0	627.0	-0.23956447622829535	--
6	MYRISTIC-ACID	Flower				Jim Duke's personal files.
6	MYRISTIC-ACID	Leaf				Jim Duke's personal files.
6	MYRISTIC-ACID	Seed Oil		4000.0	-0.5619514869490164	Jim Duke's personal files.
1	MYRISTOLEIC-ACID	Fruit				Jim Duke's personal files.
1	MYRISTOLEIC-ACID	Flower				Jim Duke's personal files.
0	MYROSIN	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	N,N-DIMETHYL-FORMAMIDE	Fruit		1000.0		Jim Duke's personal files.
3	N-ACETYL-HEXOSAMIDASE	Latex Exudate				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	N-BUTANOL	Fruit				Jim Duke's personal files.
0	N-DOCOSANE	Seed Oil				Jim Duke's personal files.
0	N-DODECANE	Seed Oil				Jim Duke's personal files.
0	N-DOTRIACONTANE	Seed Oil				Jim Duke's personal files.
0	N-EICOSANE	Seed Oil				Jim Duke's personal files.
0	N-HENEICOSANE	Seed Oil				Jim Duke's personal files.
3	N-HENTRIACONTANE	Seed Oil				Jim Duke's personal files.
0	N-HEPTACOSANE	Seed Oil				Jim Duke's personal files.
0	N-HEPTADECANE	Seed Oil				Jim Duke's personal files.
2	N-HEXACOSANE	Seed Oil				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	N-HEXADECANE	Seed Oil				Jim Duke's personal files.
1	N-NONACOSANE	Seed Oil				Jim Duke's personal files.
0	N-NONADECANE	Seed Oil				Jim Duke's personal files.
0	N-OCTACOSANE	Seed Oil				Jim Duke's personal files.
0	N-OCTADECANE	Seed Oil				Jim Duke's personal files.
0	N-PENTACOSANE	Seed Oil				Jim Duke's personal files.
0	N-PENTADECANE	Seed Oil				Jim Duke's personal files.
0	N-TETRACOSANE	Seed Oil				Jim Duke's personal files.
0	N-TETRADECANE	Seed Oil				Jim Duke's personal files.
0	N-TRIACONTANE	Seed Oil				Jim Duke's personal files.
0	N-TRICOSANE	Seed Oil				Jim Duke's personal files.
0	N-TRIDECANE	Seed Oil				Jim Duke's personal files.
0	N-TRITRIACONTANE	Seed Oil				Jim Duke's personal files.
2	NEOXANTHIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
39	NIACIN	Leaf	21.0	93.0	-0.05474550834730091	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
39	NIACIN	Fruit	4.0	30.0	-0.41038049882634875	--
21	NICOTINE	Leaf		102.8	-0.7499661778472884	Jim Duke's personal files.
21	NICOTINE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	NONANAL	Fruit				--
0	O-XYLENE	Fruit				Jim Duke's personal files.
0	OCTADECADIENOIC-ACID	Seed Oil				Jim Duke's personal files.
0	OCTADECENOIC-ACID	Seed Oil				Jim Duke's personal files.
0	OCTAN-3-OL	Fruit				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	OCTANAL	Fruit				--
5	OCTANOIC-ACID	Fruit				Jim Duke's personal files.
0	OCTANOIC-ACID-METHYL-ESTER	Fruit		0.0		Jim Duke's personal files.
18	OLEIC-ACID	Seed Oil	743000.0	755000.0	2.266462351347825	Jim Duke's personal files.
18	OLEIC-ACID	Seed	193545.0	202400.0	0.6847466271086402	--
18	OLEIC-ACID	Fruit	180.0	1611.0	-0.4683286447061981	USDA's Ag Handbook 8 and sequelae)
18	OLEIC-ACID	Flower				Jim Duke's personal files.
18	OLEIC-ACID	Leaf				Jim Duke's personal files.
13	PALMITIC-ACID	Flower				Jim Duke's personal files.
13	PALMITIC-ACID	Leaf				Jim Duke's personal files.
13	PALMITIC-ACID	Seed Oil	162000.0	190000.0	0.05419140224469152	Jim Duke's personal files.
13	PALMITIC-ACID	Seed	28791.0	30107.0	-0.07839595078720965	--
13	PALMITIC-ACID	Fruit	320.0	2865.0	-0.320933619156033	--
2	PALMITOLEIC-ACID	Flower				Jim Duke's personal files.
2	PALMITOLEIC-ACID	Fruit	200.0	1790.0	-0.01827100523355692	--
11	PANTOTHENIC-ACID	Fruit	2.0	19.0	0.05712424299404392	USDA's Ag Handbook 8 and sequelae)
25	PAPAIN	Latex Exudate	51000.0	135000.0		--
25	PAPAIN	Fruit				--
0	PAPAYA-PEPTIDASE-A	Latex Exudate				Jim Duke's personal files.
0	PAPAYA-PEPTIDASE-B	Latex Exudate				Jim Duke's personal files.
0	PAPAYA-POLYSACCHARIDE-II	Fruit				Jim Duke's personal files.
0	PAPAYA-PROTEINASE-OMEGA	Latex Exudate				Jim Duke's personal files.
24	PECTIN	Fruit				Jim Duke's personal files.
0	PENTADECANE	Fruit				--
0	PENTAN-2,4-DIONE	Fruit				--
0	PHENYLACETONITRILE	Fruit		0.017		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	PHENYLALANINE	Fruit	90.0	806.0	-0.8738816258110772	USDA's Ag Handbook 8 and sequelae)
0	PHOSPHATIDYL-GLYCEROL	Pericarp				Jim Duke's personal files.
0	PHOSPHATIDYL-GLYCEROL	Fruit				Jim Duke's personal files.
0	PHOSPHATIDYL-GLYCEROL	Leaf				Jim Duke's personal files.
4	PHOSPHORUS	Fruit	170.0	1260.0	-0.5941134018186989	--
4	PHOSPHORUS	Leaf	1420.0	6311.0	0.24645891872875847	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	PHYTOENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PHYTOFLUENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	POTASSIUM	Leaf	6520.0	28978.0	-0.060322902844285126	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
14	POTASSIUM	Fruit	690.0	5110.0	-1.1330381120971724	--
0	PROLINE	Fruit	100.0	895.0	-0.8544471302048274	USDA's Ag Handbook 8 and sequelae)
0	PROP-2-YL-BUTYRATE	Fruit				--
0	PROPYL-ACETATE	Fruit				Jim Duke's personal files.
0	PROPYL-ALCOHOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PROTEASE	Tissue Culture				Jim Duke's personal files.
0	PROTEIN	Seed	243000.0	400000.0	1.478470052739822	--
0	PROTEIN	Leaf	70000.0	326000.0	1.1388059318506265	--
0	PROTEIN	Fruit	4995.0	37000.0	-0.9718744540749881	--
0	PROTEINASE	Latex Exudate				Jim Duke's personal files.
2	PRUNASIN	Leaf				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PSEUDO-PSEUDOCAROTENE	Leaf				Jim Duke's personal files.
0	PSEUDOCARPINE	Leaf		100.0		--
4	PUFA	Fruit	310.0	2775.0	-0.6408686079046128	USDA's Ag Handbook 8 and sequelae)
3	PYRIDINE	Fruit				Jim Duke's personal files.
0	RESIN	Latex Exudate		28000.0	-1.5290479699508885	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
15	RIBOFLAVIN	Leaf	5.0	21.0	-0.07942432526480918	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	RIBOFLAVIN	Fruit	0.4	3.0	-0.4303249009534089	--
7	SALICYLATES	Fruit	0.8	8.0	-0.31380232713014544	--
60	SELENIUM	Fruit	0.1	1.0	-0.13821084305127834	--
1	SERINE	Fruit	150.0	1343.0	-0.8120190151666494	USDA's Ag Handbook 8 and sequelae)
0	SFA	Fruit	430.0	3850.0	-0.2946275915794172	USDA's Ag Handbook 8 and sequelae)
4	SILICON	Fruit	1.2	10.0	-0.5759531928031193	--
1	SODIUM	Leaf	160.0	711.0	-0.521006410073194	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
1	SODIUM	Fruit	60.0	444.0	-0.14184676510350971	--
10	SQUALENE	Seed Oil				Jim Duke's personal files.
8	STEARIC-ACID	Seed	12650.0	13282.0	-0.2772157419739704	--
8	STEARIC-ACID	Fruit	20.0	179.0	-0.2673505228936131	--
8	STEARIC-ACID	Flower				Jim Duke's personal files.
8	STEARIC-ACID	Leaf				Jim Duke's personal files.
8	STEARIC-ACID	Seed Oil		50000.0	-0.5312228391740013	Jim Duke's personal files.
12	STIGMASTEROL	Seed Oil				Jim Duke's personal files.
3	STYRENE	Fruit				Jim Duke's personal files.
14	SUCROSE	Bark				Jim Duke's personal files.



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	SUCROSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
14	SUCROSE	Leaf				Jim Duke's personal files.
0	SUGARS	Fruit	24300.0	180000.0	-0.14120496307260672	--
0	SULFOQUINOVOSYL-DIACYL-GLYCEROL	Fruit				Jim Duke's personal files.
0	SULFOQUINOVOSYL-DIACYL-GLYCEROL	Pericarp				Jim Duke's personal files.
0	SULFOQUINOVOSYL-DIACYL-GLYCEROL	Leaf				Jim Duke's personal files.
14	SULFUR	Fruit	300.0	900.0	-0.35813249886374227	--
0	TANNINS	Leaf	5000.0	6000.0	-1.136809680787192	--
6	TARTARIC-ACID	Fruit	3150.0	23333.0	-0.24237898104354536	--
9	TERPINOLENE	Fruit				--
0	TETRAPHYLLIN-B	Leaf				Jim Duke's personal files.
31	THIAMIN	Leaf	1.0	4.0	-0.8971070751644596	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
31	THIAMIN	Fruit	0.2	2.6	-0.34980129918184183	USDA's Ag Handbook 8 and sequelae)
0	THIAMINE	Fruit	0.3	2.2	-0.6034288366312146	--
4	THREONINE	Fruit	110.0	985.0	-0.8449765955821991	USDA's Ag Handbook 8 and sequelae)
1	TOLUENE	Fruit		0.005	-0.707116857507301	Jim Duke's personal files.
0	TRANS-LINALOOL-OXIDE	Fruit		0.001		Jim Duke's personal files.
0	TRIACETIN	Fruit				--
0	TRICOSANOIC-ACID	Seed Oil				Jim Duke's personal files.
29	TRYPTOPHAN	Fruit	40.0	716.0	-0.18868896426915321	--
8	TYROSINE	Fruit	50.0	448.0	-0.8166172460051626	USDA's Ag Handbook 8 and sequelae)
3	VALINE	Fruit	100.0	895.0	-0.7341136385803058	USDA's Ag Handbook 8 and sequelae)
2	VIOLAXANTHIN	Leaf				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	VIOLAXANTHIN	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	VIT-B-6	Fruit	0.2	1.7	-1.0936771834138939	USDA's Ag Handbook 8 and sequelae)
0	WATER	Latex Exudate		750000.0	0.7071067811865475	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	WATER	Leaf	697000.0	703000.0	-0.5220354959902203	--
0	WATER	Fruit		865000.0	0.41056553589694156	--
10	XYLITOL	Bark				Jim Duke's personal files.
5	ZEAXANTHIN	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
77	ZINC	Fruit				--