

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Vitis vinifera*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
53	LINALOOL	Leaf Essent. Oil		273000.0	1.032803610048003	--
35	GERANIOL	Leaf Essent. Oil		145200.0	0.2933293044777782	--
27	LINOLEIC-ACID	Seed	33000.0	110000.0	0.02465730498455117	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
23	ALPHA-TERPINEOL	Leaf Essent. Oil		108000.0	1.3174552815097405	--
68	RESVERATROL	Leaf	375.0	90400.0		--
18	OLEIC-ACID	Seed	22200.0	74000.0	-0.3707767625520139	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	EPSILON-VINIFERIN	Leaf		30900.0		--
15	FIBER	Fruit	4210.0	24640.0	-1.104411552185134	USDA's Ag Handbook 8 and sequelae)
14	POTASSIUM	Fruit	1784.0	24640.0	0.5948517865626541	--
14	POTASSIUM	Stem		20100.0	0.5104500914352443	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
28	CALCIUM	Stem		17700.0	-0.11330590567075993	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
13	PALMITIC-ACID	Seed	3300.0	11000.0	-0.472635357644977	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	PUFA	Fruit	1690.0	8693.0	-0.21721248210881625	USDA's Ag Handbook 8 and sequelae)
13	PALMITIC-ACID	Fruit	1620.0	8333.0	-0.23580842316871725	USDA's Ag Handbook 8 and sequelae)
8	GLUTAMIC-ACID	Fruit	1380.0	7099.0	-0.47772044794013085	USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Fruit	1300.0	6687.0	-0.26105644413514206	USDA's Ag Handbook 8 and sequelae)
8	STEARIC-ACID	Seed	1440.0	4800.0	-0.4612463396361093	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
28	CALCIUM	Fruit	92.0	4774.0	0.2117719310786729	--
65	MAGNESIUM	Stem		4360.0	-0.17001174539444178	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
3	ASPARTIC-ACID	Fruit	810.0	4167.0	-0.78714800256649	USDA's Ag Handbook 8 and sequelae)
24	PECTIN	Fruit	300.0	3900.0	-0.5839446324584245	--
112	ASCORBIC-ACID	Leaf	3490.0	3870.0	-0.08483341087930922	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
30	ANTHOCYANINS	Leaf		3000.0		Bruneton, J. 1999. Pharmacognosy, Phytochemistry, Medicinal Plants. 2nd Ed. Lavoisier Publishing, Paris. 1119 pp.
14	ARGININE	Fruit	490.0	2520.0	-0.47739653189299114	USDA's Ag Handbook 8 and sequelae)
65	MAGNESIUM	Fruit	58.0	2310.0	0.08347231535472893	--
15	ALPHA-LINOLENIC-ACID	Fruit	390.0	2006.0	-0.24402755757732797	USDA's Ag Handbook 8 and sequelae)
16	ACETIC-ACID	Fruit	1500.0	2000.0	-0.06645757225743394	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	MALIC-ACID	Fruit	1500.0	2000.0	-0.8215787018847368	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	PHOSPHORUS	Fruit	117.0	1848.0	-0.41551440624393526	--
4	PHOSPHORUS	Stem		1710.0	-0.5945154579676041	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	SERINE	Fruit	320.0	1646.0	-0.7050443362120865	USDA's Ag Handbook 8 and sequelae)
3	ALANINE	Fruit	280.0	1440.0	-0.8911912580591054	USDA's Ag Handbook 8 and sequelae)
77	CHLOROGENIC-ACID	Fruit		1400.0	0.11655949578196001	--
7	HISTIDINE	Fruit	240.0	1235.0	-0.33486171560742833	USDA's Ag Handbook 8 and sequelae)
18	OLEIC-ACID	Plant	230.0	1183.0	-0.7096693225803793	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
13	MUFA	Fruit	230.0	1183.0	-0.23678373998760255	USDA's Ag Handbook 8 and sequelae)
15	METHIONINE	Fruit	220.0	1132.0	0.21362860728552646	USDA's Ag Handbook 8 and sequelae)
5	ALUMINUM	Stem		1030.0	0.044464754302322065	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
12	GLYCINE	Fruit	200.0	1029.0	-0.9963335342523983	USDA's Ag Handbook 8 and sequelae)
14	MANGANESE	Stem		986.0	-0.3806285370071949	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
3	VALINE	Fruit	180.0	926.0	-0.7277174826511351	USDA's Ag Handbook 8 and sequelae)
4	THREONINE	Fruit	180.0	926.0	-0.8695024361765752	USDA's Ag Handbook 8 and sequelae)
6	IRON	Stem		900.0	0.1561374515042096	--
14	SULFUR	Fruit	7.0	888.0	-0.3664842839566224	--
4	LYSINE	Fruit	150.0	772.0	-0.8656782702911159	USDA's Ag Handbook 8 and sequelae)
2	LEUCINE	Fruit	140.0	720.0	-0.9313808451068529	USDA's Ag Handbook 8 and sequelae)
7	PHENYLALANINE	Fruit	140.0	720.0	-0.9037071292147459	USDA's Ag Handbook 8 and sequelae)
25	OPCS	Leaf	170.0	640.0		--
8	TYROSINE	Fruit	120.0	617.0	-0.7465880361585973	USDA's Ag Handbook 8 and sequelae)
112	ASCORBIC-ACID	Fruit	99.0	600.0	-0.24718280983607235	USDA's Ag Handbook 8 and sequelae)
2	CYSTINE	Fruit	110.0	566.0	-0.4853602292193013	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Fruit	2.0	454.0	-0.1408984763342879	--
4	SILICON	Stem		365.0	-0.5461064151412073	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
112	ASCORBIC-ACID	Stem		310.0	-1.1858763373403332	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
3	ISOLEUCINE	Fruit	50.0	257.0	-1.0154078969360296	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	MYRISTIC-ACID	Fruit	50.0	257.0	-0.25701951929746253	USDA's Ag Handbook 8 and sequelae)
2	PHYTOSTEROLS	Fruit	40.0	206.0	-0.9525233048912787	USDA's Ag Handbook 8 and sequelae)
4	ISOCHLOROGENIC-ACID	Fruit		200.0	-1.0	--
1	SODIUM	Stem		156.0	-0.5194124752401025	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
5	ALUMINUM	Fruit	1.0	154.0	-0.1787194752035278	--
29	TRYPTOPHAN	Fruit	30.0	154.0	-0.9774261540468739	USDA's Ag Handbook 8 and sequelae)
6	IRON	Fruit	1.5	154.0	0.08338831118036903	--
47	BETA-SITOSTEROL	Fruit	30.0	150.0	-0.5971588891273873	--
7	SALICYLATES	Fruit	2.0	80.0	-0.1073449080720807	--
77	ZINC	Stem		75.0	-0.6142974269256724	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
14	MANGANESE	Fruit	0.5	54.0	-0.047468534240292154	--
4	BORON	Fruit	1.0	50.0	0.20278384568897864	--
53	BETA-CAROTENE	Stem		43.0	-0.5551411085990826	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
9	OXALIC-ACID	Fruit		34.0	-0.3044741963579158	--
2	COBALT	Stem		33.0	0.7427055671504605	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
32	ALPHA-TOCOPHEROL	Fruit	6.0	31.0	-0.6444565233542005	--
4	SILICON	Fruit	1.0	28.0	-0.5174716882721563	ACTA AGRIC SCAND SUPPL 22: 1980
77	ZINC	Fruit	0.4	27.0	-0.09932995693106657	--
6	TARTARIC-ACID	Fruit	15.0	20.0	-0.657218517797534	--
2	NEO-CHLOROGENIC-ACID	Fruit		20.0		--
60	SELENIUM	Stem		18.0	1.924519185907645	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
176	QUERCETIN	Fruit	0.5	16.0	-0.7176094612628865	--
39	NIACIN	Fruit	3.0	15.4	-0.605557161390472	USDA's Ag Handbook 8 and sequelae)
68	RESVERATROL	Fruit		13.3		--
4	TIN	Stem		12.0	0.7071067811865475	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
12	COPPER	Fruit	0.7	11.6	-0.09487047254583593	--
31	THIAMIN	Stem		11.0	0.36791183185934545	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
34	MYRICETIN	Fruit	1.0	9.3	0.39776676515655446	--
24	CHROMIUM	Stem		9.0	0.4664861453042604	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
15	LUTEIN	Fruit	0.7	7.0	-0.22996142536614406	--
15	RIBOFLAVIN	Stem		6.9	-0.48723714845751276	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
31	THIAMIN	Fruit	0.8	4.9	-0.05538912844659949	USDA's Ag Handbook 8 and sequelae)
68	RESVERATROL	Fruit Juice	0.06	3.3		Creasy, L. L., Creasy, M. T. 1998. Grape Chemistry and the Significance of Resveratrol: An Overview. Pharm. Biol., 36: 8-13.
15	RIBOFLAVIN	Plant	0.5	3.2	-0.5722447215531815	--
53	BETA-CAROTENE	Fruit	0.5	2.1	-0.14674136696680995	--
75	KAEMPFEROL	Fruit		2.0	-0.5794291374991353	--
11	PANTOTHENIC-ACID	Fruit	0.2	1.3	-1.0718946042703752	USDA's Ag Handbook 8 and sequelae)
2	ARSENIC	Fruit	0.001	0.889	0.6023550350459049	--
3	NICKEL	Fruit	0.01	0.77	-0.5452883169082009	--
2	MOLYBDENUM	Fruit	0.1	0.539	-0.37721248118680145	--
24	CHROMIUM	Fruit	0.005	0.385	-0.45355683651553846	--
11	LITHIUM	Fruit	0.088	0.308	-0.672367806726868	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	CADMIUM	Fruit	0.001	0.231	0.03526712239341311	--
15	FOLACIN	Fruit	0.03	0.23	-0.7424982313124213	USDA's Ag Handbook 8 and sequelae)
2	COBALT	Fruit	0.005	0.22	-0.5084821806978201	--
5	PHYLLOQUINONE	Fruit	0.04	0.09	-0.21889420119445582	--
3	SILVER	Fruit	0.022	0.077	-0.5251184109620559	--
60	SELENIUM	Fruit	0.0	0.012	-0.3832115202693911	--
1	MERCURY	Fruit	0.0	0.011	-0.3194372671514748	--
62	GALLIC-ACID	Seed				--
13	FORMIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	PICEID	Fruit				--
102	CAFFEIC-ACID	Fruit				--
3	PROCYANIDIN-B-2-3,3'-DI-O-GALLATE	Seed				--
4	D-CATECHIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	SYRINGIC-ACID	Leaf				--
9	BENZYL-ALCOHOL	Leaf				--
1	PEONIDIN-3-O-BETA-D-GLUCOSIDE	Tissue Culture				--
1	PYRROLIDINE	Fruit Juice				--
13	P-HYDROXY-BENZOIC-ACID	Root				--
35	TANNIN	Seed				--
1	PETUNIDIN-3-O-BETA-D-GLUCOSIDE	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
19	CYANIDIN-3-O-GLUCOSIDE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	KAEMPFEROL-3-O-GLUCOSIDE	Plant				--
3	CAFTARIC-ACID	Fruit				--
23	CITRIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	DIHYDROZEATIN	Resin, Exudate, Sap				--
62	GALLIC-ACID	Root				--
21	(-)-EPIGALLOCATECHIN	Leaf				--
3	PROCYANIDIN-B-2-3'-O-GALLATE	Seed				--
1	OLEANOLIC-ACID-METHYL-ESTER	Leaf				--
8	LACTIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	PETUNIDIN	Pericarp				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
4	SYRINGALDEHYDE	Leaf				--
20	BENZOIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	PALMITIC-ACID	Seed Oil				--
7	GLUCOSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	METHYL-AMINE	Fruit Juice				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	SYRINGIC-ACID	Hull Husk				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	PELARGONIDIN	Fruit				--
43	CATECHIN	Seed				--
60	LIMONENE	Plant				Stitt, Paul. Why George should eat broccoli.
1	ASTILBIN	Pericarp				--
23	CITRIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	CIS-RESVERATROL	Fruit				--
7	(+)-GALLOCATECHIN	Leaf				--
38	(-)-EPICATECHIN	Seed				--
1	PROCYANIDIN-B-2	Pericarp				--
64	OLEANOLIC-ACID	Leaf Wax				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
75	KAEMPFEROL	Leaf				--
3	PEONIDIN	Pericarp				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
7	CYCLOARTENOL	Stem				--
8	STEARIC-ACID	Seed Oil				--
18	OLEIC-ACID	Seed Oil				--
19	PTEROSTILBENE	Leaf				--
35	GERANIOL	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
102	CAFFEIC-ACID	Root				--



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
16	LYCOPENE	Fruit				--
2	CAMPESTEROL	Seed				--
8	INOSITOL	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
30	ANTHOCYANINS	Pericarp				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
18	CINNAMIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	PROCYANIDIN-C-2	Seed				--
1	TRIACONTAN-1-OL	Root				--
61	FERULIC-ACID	Fruit				--
38	(-)-EPICATECHIN	Leaf				--
4	BIOTIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	PROCYANIDIN-B-2	Leaf				--
2	NONACOSANE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
22	ISOQUERCITRIN	Leaf				--
30	(+)-CATECHIN	Pericarp				--
7	CYANIDIN	Fruit				--
10	SQUALENE	Seed Oil				--
64	OLEANOLIC-ACID	Pericarp				--
27	PROCYANIDINS	Fruit				--
102	CAFFEIC-ACID	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	SUCCINIC-ACID	Fruit				--
78	LUTEOLIN	Leaf				--
40	EPICATECHIN	Fruit				--
14	SHIKIMIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
8	GENTISIC-ACID	Hull Husk				--
1	EPICATECHIN-3-O-GALLATE	Seed				--
1	PROCYANIDIN-B-6	Seed				--
5	ERGOSTEROL	Fruit				--
38	(-)-EPICATECHIN	Pericarp				--
22	BETULINIC-ACID	Root				--
1	PROCYANIDIN-B-2	Seed				--
30	(+)-CATECHIN	Leaf				--
2	CRYPTOXANTHIN	Fruit				--
34	SALICYLIC-ACID	Leaf				--
21	LUPEOL	Root				--
3	PROCYANIDIN-B-2-3'-O-GALLATE	Fruit				--
12	STIGMASTEROL	Seed				--
7	ASTRAGALIN	Leaf				--
12	STIGMASTEROL	Plant				--
21	LUPEOL	Stem				--
10	ANTHOCYANIDINS	Pericarp				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	GAMMA-CAROTENE	Fruit				--
1	EPICATECHIN-3-O-GALLATE	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	PROCYANIDIN-B-4	Pericarp				--
7	ALPHA-CAROTENE	Fruit				--
38	(-)-EPICATECHIN	Fruit				--
14	BETAINE	Fruit Juice				--
1	PROCYANIDIN-B-1	Pericarp				--
39	NIACIN	Stem				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
30	(+)-CATECHIN	Seed				--
68	RESVERATROL	Shoot				--
24	PECTIN	Leaf				Bruneton, J. 1999. Pharmacognosy, Phytochemistry, Medicinal Plants. 2nd Ed. Lavoisier Publishing, Paris. 1119 pp.
3	4-HYDROXYBENZALDEHYDE	Leaf				--
53	LINALOOL	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
57	COUMARIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
21	LUPEOL	Leaf				--
27	LINOLEIC-ACID	Seed Oil				--
62	GALLIC-ACID	Fruit				--
9	BETA-AMYRIN	Leaf				--
1	CHOLESTEROL	Fruit				--
4	PROCYANIDIN-B-4	Leaf				--
10	ALPHA-AMYRIN	Stem				--
51	ELLAGIC-ACID	Fruit				--
2	ZEATIN	Resin, Exudate, Sap				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	PROCYANIDIN-B-1	Leaf				--
1	RAFFINOSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
5	CYANIN	Tissue Culture				--
1	QUINIC-ACID	Root				--
47	BETA-SITOSTEROL	Seed				--
77	CHLOROGENIC-ACID	Shoot				--
1	STACHYOSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
20	LECITHIN	Seed				--
5	ZEAXANTHIN	Fruit				--
1	GALACTOSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	TARAXASTEROL	Stem				--
4	PROCYANIDIN-B-4	Seed				--
13	P-HYDROXY-BENZOIC-ACID	Hull Husk				--
2	DIMETHYL-AMINE	Fruit Juice				--
24	VANILLIC-ACID	Leaf				--
13	BETA-IONONE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	PETUNIDIN-3-O-BETA-D-GLUCOSIDE	Pericarp				--
1	QUINIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
10	NEROL	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	CYANIDIN	Pericarp				--
6	QUERCIMERITRIN	Leaf				--
6	MALVIDIN	Fruit				--
4	GLYCOLIC-ACID	Leaf				--
1	DELPHINIDIN-3-O-BETA-D-GLUCOSIDE	Pericarp				--
10	SQUALENE	Seed				--
5	CONIFERYL-ALDEHYDE	Fruit				--
30	HYPEROSIDE	Leaf				--
28	VANILLIN	Fruit				--
3	XYLOSE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
34	SALICYLIC-ACID	Root				--
22	GABA	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
12	STIGMASTEROL	Root				--
1	CATALASE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	PROCYANIDIN-B-3	Pericarp				--
16	ACETIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
25	P-COUMARIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
89	URSOLIC-ACID	Fruit				--
2	DIETHYL-AMINE	Fruit Juice				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	TRANS-RESVERATROL	Fruit				--
1	PETUNIDIN-3-O-BETA-D-GLUCOSIDE	Exocarp				--
1	QUINIC-ACID	Fruit				Jim Duke's personal files.
2	NEOXANTHIN	Fruit				--
77	CHLOROGENIC-ACID	Root				--
176	QUERCETIN	Leaf				--
30	ANTHOCYANINS	Fruit				--
15	MALIC-ACID	Plant				--
2	ERUCIC-ACID	Seed				--
3	CAFFELOYLTARTARIC-ACID	Fruit				Jim Duke's personal files.
60	CINNAMALDEHYDE	Fruit				--
8	GENTISIC-ACID	Leaf				--
2	VIOLAXANTHIN	Fruit				--
87	RUTIN	Leaf				--
7	FUMARIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	SHIKIMIC-ACID	Root				--
2	PROCYANIDIN-B-3	Leaf				--
9	DELPHINIDIN	Plant				--
6	TARTARIC-ACID	Leaf				--
1	PEONIDIN-3-O-BETA-D-GLUCOSIDE	Pericarp				--
44	QUERCITRIN	Leaf				--
77	CHLOROGENIC-ACID	Leaf				--
2	TARAXEROL	Leaf				--
1	ANTHERAXANTHIN	Fruit				--
40	EPICATECHIN	Seed				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
44	QUERCITRIN	Fruit				--
1	CEPHALIN	Seed				--
1	CITROSTADIENOL	Stem				--
43	PROTocatechuic-acid	Leaf				--
1	LEUCOCYANIDIN	Plant				--
62	GALLIC-ACID	Leaf				--
24	VANILLIC-ACID	Hull Husk				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
8	FRUCTOSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	PROCYANIDIN-B-1	Seed				--
2	PROCYANIDIN-B-3	Seed				--
3	ABSCISSIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	PROTocatechualdehyde	Fruit				--
4	D-CATECHIN	Leaf				--
2	TARAXEROL	Stem				--
9	BETA-AMYRIN	Stem				--
1	PEONIDIN-3-O-BETA-D-GLUCOSIDE	Exocarp				--
3	GLYCERIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	P-HYDROXY-BENZOIC-ACID	Leaf				--
2	TARAXASTEROL	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
19	CYANIDIN-3-O-GLUCOSIDE	Leaf				Bruneton, J. 1999. Pharmacognosy, Phytochemistry, Medicinal Plants. 2nd Ed. Lavoisier Publishing, Paris. 1119 pp.
1	POTASSIUM-BITARTRATE	Leaf				--
9	SINAPIC-ACID	Root				--
2	CAMPESTEROL	Plant				Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
15	CITRONELLOL	Leaf				--
1	PROTOCATECHUALDEHYD E	Leaf				--