

P Brassica oleracea var. capitata L.

Common Name(s)

Cabbage, Red Cabbage, White Cabbage

How Used

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Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	-METHOXYBRASSITIN	Leaf	--	30	Jim Duke's personal files.
0	1,2-DITHIACYCLOPENT-4-ENE-3-THIONE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	1-CYANO-2,3-EPITHIOPROPANE	Plant	--	--	
0	1-CYANO-2,3-EPITHIOPROPANE	Leaf	--	--	
0	1-CYANO-2-HYDROXY-3-BUTENE	Plant	--	--	
0	1-CYANO-2-HYDROXY-3-BUTENE	Leaf	--	--	
0	1-CYANO-3,4-EPITHIOBUTANE	Plant	--	--	
0	1-CYANO-3,4-EPITHIOBUTANE	Leaf	--	--	
0	1-CYANO-3,4-EPITHIOPENTANE	Plant	--	--	
0	1-CYANO-3,4-EPITHIOPENTANE	Leaf	--	--	
0	1-CYANO-3-METHYL-SULFINYL-PROPANE	Plant	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	1-CYANO-3-METHYL-SULFINYL-PROPANE	Leaf	--	--	
0	1-CYANO-3-METHYL-THIO-PROPANE	Leaf	--	--	Jim Duke's personal files.
0	1-CYANO-4-METHYL-SULFINYL-BUTANE	Plant	--	--	
0	1-CYANO-4-METHYL-SULFINYL-BUTANE	Leaf	--	--	
0	1-CYANO-4-METHYL-THIO-BUTANE	Leaf	--	--	Jim Duke's personal files.
0	1-METHOXY-3-INDOYL-METHYL	Plant	--	--	
0	1-METHOXY-3-INDOYL-METHYL	Leaf	--	--	
0	1-METHOXY-GLUCOBRASSICIN	Leaf	--	--	Jim Duke's personal files.
0	1-O-FERULOYL-BETA-D-GLUCOSE	Leaf	--	--	Jim Duke's personal files.
0	1-O-P-COUMAROYL-BETA-D-GLUCOSE	Leaf	--	--	Jim Duke's personal files.
0	1-O-SINAPOYL-BETA-D-GLUCOSE	Leaf	--	--	Jim Duke's personal files.
0	2-HYDROXY-4-PENTENYLISOTHIOCYANATE	Leaf	--	--	
0	2,4,5-TRITHISHEXANE	Leaf	--	--	Wealth of India.
0	2-BUTANONE	Leaf	--	--	Wealth of India.
0	2-HYDROXY-1-CYANO-BUT-3-ENE	Leaf	--	--	Jim Duke's personal files.
0	2-HYDROXY-3-BUTENYL-GLUCOSINOLATE	Leaf	--	--	
0	2-METHOXY-PHENOL	Plant	--	--	
0	2-METHOXY-PHENOL	Leaf	--	--	
0	2-METHYL-THIO-PROPYL-GLUCOSINOLATE	Leaf	--	--	
0	2-PHENETHYL-CYANIDE	Leaf	--	--	Wealth of India.
0	2-PHENYL-ETHYL-GLUCOSINOLATE	Leaf	--	--	USDA's Ag Handbook 8 and sequelae)

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	2-PROPENYL-GLUCOSINOLATE	Plant	--	--	
0	2-PROPENYL-GLUCOSINOLATE	Leaf	--	--	
0	3-(METHYLTHIO)-PROPYL-ISOTHIOCYANATE	Leaf	--	--	
0	3-BUTENYL-GLUCOSINOLATE	Leaf	--	--	
1	3-BUTENYL-ISOTHIOCYANATE	Leaf	--	--	
0	3-HYDROXY-METHYL-INDOLE	Leaf	--	--	
0	3-INDOYL-ACETONITRILE	Leaf	--	--	Wealth of India.
0	3-INDOYL-METHYL-GLUCOSINOLATE	Plant	--	--	
0	3-INDOYL-METHYL-GLUCOSINOLATE	Leaf	--	--	
0	3-METHYL-SULFINYL-PROPYL-GLUCOSINOLATE	Leaf	--	--	
0	3-METHYL-SULFINYL-PROPYL-ISOTHIOCYANATE	Leaf	--	--	
0	3-METHYL-THIO-PROPYL-CYANIDE	Leaf	--	--	Wealth of India.
0	3-O-(2-O-{BETA-D-GLUCOPYRANOSYL}-6-O-(4-O-{BETA-D-GLUCOPYRANOSYL}-5-O-BETA-D-GLUCOPYRANOSYL)...CYANIDIN	Leaf	16	16	Jim Duke's personal files.
0	3-O-(2-O-{BETA-D-GLUCOPYRANOSYL}-6-O-(4-O-{BETA-D-GLUCOPYRANOSYL}TRANS-FERULYL)...CYANIDIN	Leaf	0.5	0.5	Jim Duke's personal files.
0	3-O-(2-O-{BETA-D-GLUCOPYRANOSYL}-6-O-(4-O-{BETA-D-GLUCOPYRANOSYL}TRANS-P-COUMARYL)...CYANIDIN	Leaf	0.3	0.3	Jim Duke's personal files.
0	3-O-(6-O-{TRANS-FERULYL}-2-O-BETA-D-GLUCOPYRANOSYL)...CYANIDIN	Leaf	0.2	0.2	Jim Duke's personal files.
0	3-O-(6-O-{TRANS-P-COUMAROYL}-2-O-BETA-D-GLUCOPYRANOSYL)...CYANIDIN	Leaf	27	27	Jim Duke's personal files.
0	3-O-(6-O-{TRANS-SINAPL}-2-O-(BETA-D-GLUCOPYRANOSYL)-BETA-D-GLUCOPYRANOSYL5-O-(BETA-D-GLUCOPYRANOSYL)-CYANIDIN	Leaf	0.1	0.1	Jim Duke's personal files.
0	3-PENTANONE	Leaf	--	--	Wealth of India.
0	4-(METHYLTHIO)-BUTYL-ISOTHIOCYANATE	Leaf	--	--	
0	4-CAFFOYLQUINIC-ACID	Plant	--	--	
0	4-CAFFOYLQUINIC-ACID	Leaf	--	--	
0	4-EPITHIOBUTANE	Leaf	--	--	Wealth of India.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
1	4-HYDROXY-GLUCOBRASSICIN	Leaf	--	--		Jim Duke's personal files.
0	4-HYDROXY-INDO-3-YL-METHYL-GLUCOSINOLATE	Seed	--	--		Jim Duke's personal files.
0	4-HYDROXY-INDOYL-3-YL-METHYL-GLUCOSINOLATE	Leaf	--	--		Jim Duke's personal files.
3	4-METHOXYBRASSININ	Leaf	1	1		Jim Duke's personal files.
0	4-METHYL-SULFINYL-BUTYL-GLUCOSINOLATE	Leaf	--	--		
0	4-METHYL-SULFINYL-BUTYL-ISOTHIOCYANATE	Leaf	--	--		
0	4-METHYL-THIO-BUTYL-CYANIDE	Leaf	--	--		Wealth of India.
0	4-METHYL-THIO-BUTYL-GLUCOSINOLATE	Leaf	--	--		
0	4-P-COUMAROYLQUINIC-ACID	Plant	--	--		
0	4-P-COUMAROYLQUINIC-ACID	Leaf	--	--		
0	4-PENTENYL-CYANIDE	Leaf	--	--		
1	4-PENTENYL-ISOTHIOCYANATE	Plant	--	--		
1	4-PENTENYL-ISOTHIOCYANATE	Leaf	--	--		
0	5-FERULOYLQUINIC-ACID	Plant	--	--		
0	5-FERULOYLQUINIC-ACID	Leaf	--	--		
0	5-P-COUMAROYLQUINIC-ACID	Plant	--	--		
0	5-P-COUMAROYLQUINIC-ACID	Leaf	--	--		
0	5-VINYLOXAZOLIDINE-2-THIONE	Plant	--	--		
0	5-VINYLOXAZOLIDINE-2-THIONE	Leaf	--	--		
6	ACETALDEHYDE	Leaf	--	--		Wealth of India.
3	ACETONE	Leaf	--	--		Wealth of India.
3	ALANINE	Leaf	420	5615	-1.623763228742012	USDA's Ag Handbook 8 and sequelae)
0	ALKYL-NITRILES	Leaf	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	ALLYL-CYANIDE	Plant	--	--		
0	ALLYL-CYANIDE	Leaf	--	--		
0	ALLYL-GLUCOSINOLATE	Seed	--	--		Jim Duke's personal files.
16	ALLYL-ISOTHIOCYANATE	Leaf	--	20		Jim Duke's personal files.
0	ALPHA-AMYLASE	Leaf	--	--		Wealth of India.
15	ALPHA-LINOLENIC-ACID	Leaf	460	6150	-0.16397504102874608	USDA's Ag Handbook 8 and sequelae)
13	ALPHA-TERPINENE	Shoot	--	14	-0.4419839668650155	
23	ALPHA-TERPINEOL	Shoot	--	3.6	-0.28212583849065603	
0	ALPHA-THUJENE	Shoot	--	18	-0.23235009860030018	
32	ALPHA-TOCOPHEROL	Leaf	0.4	7	-0.5547164006283091	
5	ALUMINUM	Plant	--	--		
5	ALUMINUM	Leaf	1	4350	3.88787055877884	
0	AMMONIA	Leaf	3800	11060	0.15612858815626557	Jim Duke's personal files.
0	AMMONIA(NH3)	Leaf	3800	11060	1	
0	ANILINE	Leaf	1	4	1.0000000000000002	Jim Duke's personal files.
1	ANTHERAXANTHIN	Leaf	--	--		Jim Duke's personal files.
0	ANTHOXANTHINS	Sprout Seedling	--	--		Jim Duke's personal files.
14	ARGININE	Leaf	690	9225	-0.6852151846414809	USDA's Ag Handbook 8 and sequelae)
2	ARSENIC	Leaf	0.004	0.007	-0.8279453340767596	
112	ASCORBIC-ACID	Leaf	190	6774	0.18462078457948597	
0	ASH	Leaf	6000	98072	-0.3661126680519266	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
3	ASPARTIC-ACID	Leaf	1190	15910	-0.7020365569499997	USDA's Ag Handbook 8 and sequelae)
0	BARIUM	Leaf	1	87	-0.8073788630571049	
1	BENZOPHENONE	Leaf	--	--		
0	BENZYL-AMINE	Leaf	2.8	3.3	-0.9021648104927832	Jim Duke's personal files.
0	BENZYL-GLUCOSINOLATE	Leaf	--	--		
20	BENZYL-ISOTHIOCYANATE	Leaf	--	--		
0	BETA-AMYLASE	Leaf	--	--		Wealth of India.
53	BETA-CAROTENE	Leaf	0.6	12	-1.085679790019065	
47	BETA-SITOSTEROL	Leaf	70	700	-0.6989515844936766	
4	BORON	Leaf	1	145	2.281522481918345	
3	BRASSININ	Leaf	1.3	1.3		Jim Duke's personal files.
0	BROMINE	Leaf	0.2	37	-0.22008318704091276	ACTA AGRIC SCAND SUPPL 22: 1980
0	BUTANEDIONE	Leaf	--	--		Wealth of India.
0	BUTENYL-CYANIDE	Leaf	--	--		
0	BUTYL-CYANIDE	Leaf	--	--		
0	BUTYL-GLUCOSINOLATE	Plant	--	--		
0	BUTYL-GLUCOSINOLATE	Leaf	--	--		
3	CADMIUM	Leaf	0.005	0.39	-0.7049760687664525	
102	CAFFEIC-ACID	Leaf	0.5	77	-0.7052449652453338	
0	CAFFEIC-ACID-4-O-BETA-GLUCOSIDE	Leaf	--	--		Jim Duke's personal files.
28	CALCIUM	Leaf	290	7500	0.07261994398817469	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
2	CAMPESTEROL	Leaf	20	200	0.2661820241306193 Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
0	CARBOHYDRATES	Leaf	53700	717969	0.8439262119671483 USDA's Ag Handbook 8 and sequelae)
19	CARVONE	Plant	--	--	
19	CARVONE	Leaf	--	--	
7	CHLORINE	Leaf	--	120	-0.6424824717432082 Wealth of India.
77	CHLOROGENIC-ACID	Plant	--	--	
77	CHLOROGENIC-ACID	Leaf	--	--	
20	CHOLINE	Leaf	--	1200	-0.41570896085813536 Wealth of India.
24	CHROMIUM	Leaf	0.001	8.7	0.09697947030973238
0	CIS-HEXEN-1-OL	Leaf	--	--	Wealth of India.
23	CITRIC-ACID	Leaf	--	--	Jim Duke's personal files.
2	COBALT	Leaf	0.001	2.9	-0.28164862353295
12	COPPER	Leaf	0.3	87	1.6330864488132748
10	CROCETIN	Leaf	--	--	Jim Duke's personal files.
0	CYANIDIN-3,5-DIGLUCOSIDE	Sprout Seedling	229	229	
0	CYANIDIN-3-(DI-P-COUMAROYL)-SOPHOROSIDE-5-GLUCOSIDE	Sprout Seedling	229	229	Jim Duke's personal files.
0	CYANIDIN-3-(DIFERULYL)-SOPHOROSIDE-5-GLUCOSIDE	Sprout Seedling	214	214	Jim Duke's personal files.
0	CYANIDIN-3-(DISINAPYL)-SOPHOROSIDE-5-GLUCOSIDE	Sprout Seedling	257	257	Jim Duke's personal files.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	CYANIDIN-3-(P-COUMAROYL)-SOPHOROSIDE-5-GLUCOSIDE	Sprout Seedling	200	200		Jim Duke's personal files.
0	CYANIDIN-3-FERULYL-SOPHOROSIDE-5-GLUCOSIDE	Sprout Seedling	243	243		Jim Duke's personal files.
0	CYANIDIN-3-MALONYL-SOPHOROSIDE-5-GLUCOSIDE	Sprout Seedling	171	171		Jim Duke's personal files.
0	CYANIDIN-3-SINAPYL-SOPHOROSIDE-5-GLUCOSIDE	Sprout Seedling	200	200		Jim Duke's personal files.
0	CYANIDIN-3-SOPHOROSIDE-5-GLUCOSIDE	Sprout Seedling	257	257		
0	CYANIDIN-5-O-GLUCOSIDE-3-O-SOPHOROSIDE	Leaf	--	--		
5	CYANIN	Leaf	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
3	CYCLOBRASSININ	Leaf	4.3	4.3		Jim Duke's personal files.
2	CYSTINE	Leaf	100	1337	-1.3307804728746868	USDA's Ag Handbook 8 and sequelae)
0	DEHYDROASCORBIC-ACID	Shoot	--	--		Jim Duke's personal files.
0	DIINDOLYLMETHANE	Plant	--	--		
0	DIINDOLYLMETHANE	Leaf	--	--		
2	DIMETHYL-AMINE	Leaf	2	2.8	-1.0000000000000004	Jim Duke's personal files.
2	DIMETHYL-DISULFIDE	Leaf	--	--		Wealth of India.
0	DIMETHYL-TRISULFIDE	Leaf	--	--		Wealth of India.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	ERYTHRO-1-CYANO-2-HYDROXY-3,4-EPITHIOBUTANE	Plant	--	--		
0	ERYTHRO-1-CYANO-2-HYDROXY-3,4-EPITHIOBUTANE	Leaf	--	--		
0	ESTERASE	Leaf	--	--		Wealth of India.
0	ETHYL-AMINE	Leaf	1.3	1.3	-0.9999999999999999	Jim Duke's personal files.
0	ETHYL-METHYL-AMINE	Leaf	0.9	0.9		Jim Duke's personal files.
0	FAT	Leaf	1090	33559	-0.45638542079053585	USDA's Ag Handbook 8 and sequelae)
0	FAT	Seed	--	350000	0.44568382272451457	Wealth of India.
61	FERULIC-ACID	Leaf	4	20	0.7463143926113956	
0	FERULIC-ACID-B-BETA-D-GLUCOSIDE	Leaf	--	--		Jim Duke's personal files.
15	FIBER	Leaf	6000	106960	-0.6748814720634182	USDA's Ag Handbook 8 and sequelae)
0	FLUORINE	Leaf	0.02	2.5	-0.6306780150359617	ACTA AGRIC SCAND SUPPL 22: 1980
15	FOLACIN	Leaf	0.45	9	-0.08866046072610245	USDA's Ag Handbook 8 and sequelae)
23	FOLIC-ACID	Leaf	--	0.133	-0.9999999999999999	Wealth of India.
7	FUMARIC-ACID	Leaf	--	--		Jim Duke's personal files.
11	GAMMA-TERPINENE	Shoot	--	14	-0.38466149952482603	
1	GLUCOBRASSICANAPIN	Seed	--	0.1		
1	GLUCOBRASSICIN	Plant	--	--		
1	GLUCOBRASSICIN	Leaf	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	GLUCOERUCIN	Leaf	--	--	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
1	GLUCOIBERIN	Leaf	--	--	Jim Duke's personal files.
0	GLUCOIBERVERIN	Leaf	--	--	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
1	GLUCONAPIN	Seed	--	2.3	
1	GLUCORAPHANIN	Leaf	--	--	Jim Duke's personal files.
8	GLUTAMIC-ACID	Leaf	2700	36099	-0.09866810879436606 USDA's Ag Handbook 8 and sequelae)
12	GLYCINE	Leaf	270	3610	-1.8075432436080534 USDA's Ag Handbook 8 and sequelae)
2	GOITRIN	Plant	--	--	
2	GOITRIN	Leaf	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	HEXACOSAN-1-OL	Leaf	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	HEXOXIDASE	Leaf	--	--		Wealth of India.
18	HISTAMINE	Leaf	--	--		Wealth of India.
7	HISTIDINE	Leaf	250	3343	-1.0204275283909108	USDA's Ag Handbook 8 and sequelae)
0	HYDROXYDIMETHYLBENZOPHENONE	Leaf	--	--		
3	INDOLE-3-ACETONITRILE	Plant	--	--		
3	INDOLE-3-ACETONITRILE	Leaf	--	--		
0	INDOLE-3-ALDEHYDE	Leaf	--	--		Wealth of India.
32	INDOLE-3-CARBINOL	Plant	--	--		
32	INDOLE-3-CARBINOL	Leaf	--	--		
0	INDOLE-3-CARBOXALDEHYDE	Shoot	--	--		Jim Duke's personal files.
0	INDOLE-3-CARBOXYIC-ACID	Leaf	--	--		Wealth of India.
0	INDOYL-3,3'-DIMETHANE	Shoot	--	--		Jim Duke's personal files.
6	IRON	Leaf	4	151	-0.5378327745918356	
3	ISOLEUCINE	Leaf	610	8156	-1.0067475834172068	USDA's Ag Handbook 8 and sequelae)
1	ISOMENTHOL	Plant	--	--		
1	ISOMENTHOL	Leaf	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	JASMONIC-ACID	Leaf	--	--	Jim Duke's personal files.
75	KAEMPFEROL	Leaf	100	300	0.7719941193159421 Jim Duke's personal files.
0	KAEMPFEROL-3-0-SOPHOROSIDE	Leaf	--	--	Jim Duke's personal files.
0	KAEMPFEROL-3-FERULOYL-SOPHOROSIDE	Leaf	--	--	Jim Duke's personal files.
0	KAEMPFEROL-3-SINAPOYL-SOPHOROSIDE	Leaf	--	--	Jim Duke's personal files.
0	KAEMPFEROL-3-SOPHOROSIDE-7-GLUCOSIDE	Leaf	--	--	Jim Duke's personal files.
1	KAEMPFEROL-7-GLUCOSIDE	Leaf	--	--	Jim Duke's personal files.
0	KILOCALORIES	Leaf	240	3209	0.30774280957054606 USDA's Ag Handbook 8 and sequelae)
0	LANTHANUM	Leaf	6.7	20.3	0.2661910237598584
0	LEAD	Leaf	0.002	5.8	-0.5277415619793002
2	LEUCINE	Leaf	630	8423	-1.2459442303526156 USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Leaf	350	4680	-0.5915925758908295 USDA's Ag Handbook 8 and sequelae)
11	LITHIUM	Leaf	0.28	1.4	-0.5009219035070377
15	LUTEIN	Leaf	--	--	Jim Duke's personal files.
4	LYSINE	Leaf	570	7621	-1.1945584518019292 USDA's Ag Handbook 8 and sequelae)
65	MAGNESIUM	Leaf	100	2228	-0.7327834927036897
15	MALIC-ACID	Leaf	--	--	Jim Duke's personal files.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
14	MANGANESE	Leaf	1	45	-0.3850752536362415	
63	MENTHOL	Plant	--	--		
63	MENTHOL	Leaf	--	--		
1	MERCURY	Leaf	--	0.013	-0.7852856690881739	
15	METHIONINE	Leaf	120	1604	-1.232498891016048	USDA's Ag Handbook 8 and sequelae)
1	METHYL-AMINE	Leaf	3.4	22.7	-0.17805026197044863	Jim Duke's personal files.
0	METHYL-SULFINYL-ALKYL-ISOTHIOCYANATES	Leaf	--	--		
0	METHYL-SULFONYL-ALKYL-ISOTHIOCYANATES	Leaf	--	--		
0	MEVALONIC-ACID	Leaf	--	--		Wealth of India.
2	MOLYBDENUM	Leaf	0.1	8.7	2.9605996324651915	
0	MONOBUTYLPHTHALATE	Leaf	--	--		
0	MONOOCTYLPHTHALATE	Leaf	--	--		
0	N-(1)-METHOXYBRASSININ	Leaf	63	63		Jim Duke's personal files.
0	N-BUTYL-ISOTHIOCYANATE	Leaf	--	--		Wealth of India.
0	N-HEXANAL	Leaf	--	--		Wealth of India.
0	N-METHYL-ANILINE	Leaf	0.3	0.3	-0.9999999999999999	Jim Duke's personal files.
0	N-METHYL-BETA-PHENETHYLAMINE	Leaf	0.5	2		Jim Duke's personal files.
0	N-METHYL-PHENETHYLAMINE	Leaf	0.5	3.7	1.3779456365238765	Jim Duke's personal files.
1	N-NONACOSANE	Leaf	--	--		Jim Duke's personal files.
0	N-PENTYL-AMINE	Leaf	0.6	1.4	1.4094277159494513	Jim Duke's personal files.
0	NAPOLEIFERIN	Seed	--	0.1		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
6	NARCOTINE	Leaf	--	--	Jim Duke's personal files.
2	NEO-CHLOROGENIC-ACID	Plant	--	--	
2	NEO-CHLOROGENIC-ACID	Leaf	--	--	
1	NEOGLUCOBRASSICIN	Plant	--	--	
1	NEOGLUCOBRASSICIN	Leaf	--	--	
2	NEOMENTHOL	Plant	--	--	
2	NEOMENTHOL	Leaf	--	--	
2	NEOXANTHIN	Leaf	--	--	Jim Duke's personal files.
39	NIACIN	Leaf	3	40	-0.6994157399536978
3	NICKEL	Leaf	0.02	8.7	-0.24617700855562716
0	NITROGEN	Leaf	2100	37500	-0.31355959259454924 ACTA AGRIC SCAND SUPPL 22: 1980
0	NONACOSAN-15-ONE	Leaf	--	--	Jim Duke's personal files.
18	OLEIC-ACID	Leaf	130	1738	-0.4270491551154374 USDA's Ag Handbook 8 and sequelae)
0	OXALATE	Leaf	1000	13370	-0.6286842595909218 USDA's Ag Handbook 8 and sequelae)
9	OXALIC-ACID	Leaf	30	350	-0.46587265245095044
25	P-COUMARIC-ACID	Leaf	0.5	9	-0.34761449277437817
0	P-COUMARIC-ACID-O-BETA-D-GLUCOSIDE	Leaf	--	--	Jim Duke's personal files.
13	PALMITIC-ACID	Leaf	190	2540	-0.34161769750550813 USDA's Ag Handbook 8 and sequelae)
11	PANTOTHENIC-ACID	Leaf	1.4	19	-0.4522700715808781 USDA's Ag Handbook 8 and sequelae)

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
24	PECTIN	Leaf	--	45700	0.25679811036022554	Wealth of India.
0	PHENETHYL-CYANIDE	Leaf	--	--		Wealth of India.
3	PHENETHYLAMINE	Leaf	2.1	8.6	1.371596163583519	Jim Duke's personal files.
7	PHENYLALANINE	Leaf	390	5214	-1.3064553511172092	USDA's Ag Handbook 8 and sequelae)
0	PHENYLETHYL-ISOTHIOCYANATE	Leaf	--	--		USDA's Ag Handbook 8 and sequelae)
3	PHEOPHYTIN-A	Leaf	--	--		Jim Duke's personal files.
0	PHOSPHOLIPIDS	Leaf	80	2400	-1	
4	PHOSPHORUS	Leaf	214	6500	0.2812324573807496	
5	PHYLLUQUINONE	Flower	0.19	3.39		
2	PHYTOSTEROLS	Leaf	110	1471	-0.32996654372555645	USDA's Ag Handbook 8 and sequelae)
14	POTASSIUM	Leaf	1140	42500	0.5367783866081342	
1	PROGOITRIN	Leaf	--	--		Jim Duke's personal files.
1	PROGOITRIN	Seed	--	1.9		
0	PROLINE	Leaf	2380	31821	2.980259571782197	USDA's Ag Handbook 8 and sequelae)
0	PROP-2-ENYL-ISOTHIOCYANATE	Plant	--	--		
0	PROP-2-ENYL-ISOTHIOCYANATE	Leaf	--	--		Jim Duke's personal files.
0	PROPENYL-CYANIDE	Leaf	--	--		
0	PROPYL-GLUCOSINOLATE	Plant	--	--		
0	PROPYL-GLUCOSINOLATE	Leaf	--	--		
0	PROTEIN	Leaf	10780	179425	-0.3234213176764084	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
43	PROTocatechuic-acid	Plant	--	--	
43	PROTocatechuic-acid	Leaf	--	--	
176	QUERCETIN	Leaf	2	100	-0.35041307015361245 Jim Duke's personal files.
2	QUERCETIN-3'-GLUCOSIDE	Leaf	--	--	Jim Duke's personal files.
0	QUERCETIN-3-SINAPOYL-SOPHOROSIDE	Leaf	--	--	Jim Duke's personal files.
0	QUERCETIN-3-SOPHOROSIDE	Leaf	--	--	Jim Duke's personal files.
0	QUERCETIN-3-SOPHOROSIDE-7-GLUCOSIDE	Leaf	--	--	Jim Duke's personal files.
1	QUINIC-ACID	Leaf	--	--	Jim Duke's personal files.
0	RHODANIDES	Leaf	--	--	
15	RIBOFLAVIN	Leaf	--	4	-0.15911158075734227
0	RUBIDIUM	Leaf	0.4	27.5	-0.5034963105526798 ACTA AGRIC SCAND SUPPL 22: 1980
0	RUBROBRASSINCHLORIDE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	S-METHYL-CYSTEINE-SULFOXIDE	Leaf	--	--	
0	S-METHYL-METHIONINE-SULFOXIDE	Leaf	--	--	
7	SALICYLATES	Leaf	--	15	-0.5443718299803298
0	SEC-BUTYL-ISOTHIOCYANATE	Seed	--	--	Jim Duke's personal files.
60	SELENIUM	Leaf	0.003	0.25	-0.36333818399043666

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
1	SERINE	Leaf	710	9493	-0.28585718245130637 USDA's Ag Handbook 8 and sequelae)
4	SILICON	Leaf	1	25	-0.33883359710015254 ACTA AGRIC SCAND SUPPL 22: 1980
3	SILVER	Leaf	0.07	0.58	1.325475517532498 USDA's Ag Handbook 8 and sequelae)
9	SINAPIC-ACID	Leaf	13	67	-0.361480599804423
7	SINIGRIN	Seed	--	44.7	-1.0000000000000002 Abstract (See species file)
1	SODIUM	Leaf	141	4510	0.15372212688586484
0	SPATHULENOL	Shoot	--	90	0.07721374848575883
2	SPIROBRASSININ	Leaf	35	35	Jim Duke's personal files.
8	STEARIC-ACID	Leaf	10	134	-0.5345445720779654 USDA's Ag Handbook 8 and sequelae)
0	STRONTIUM	Leaf	3	870	1.0343567408579153
7	SUCCINIC-ACID	Leaf	--	--	Jim Duke's personal files.
5	SULFORAPHANE	Leaf	--	--	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
14	SULFUR	Leaf	385	8750	0.9153795091683222
23	TERPINEN-4-OL	Shoot	--	22	-0.15806106404222492
9	TERPINOLENE	Shoot	--	3.6	-0.7018653661292504

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
31	THIAMIN	Leaf	0.5	10	0.35331539437656273
0	THREO-1-CYANO-2-HYDROXY-3,4-EPITHIOBUTANE	Plant	--	--	
0	THREO-1-CYANO-2-HYDROXY-3,4-EPITHIOBUTANE	Leaf	--	--	
4	THREONINE	Leaf	420	5615	-1.3995320607979895 USDA's Ag Handbook 8 and sequelae)
0	TITANIUM	Leaf	0.35	203	0.17567539466645712
4	TRANS-2-HEXENAL	Leaf	--	--	Wealth of India.
0	TRANS-2-PENTENOL	Leaf	--	--	Wealth of India.
1	TRIACONTAN-1-OL	Leaf	--	--	
0	TRITHIONE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
29	TRYPTOPHAN	Leaf	120	1604	-1.4381325171364434 USDA's Ag Handbook 8 and sequelae)
8	TYROSINE	Leaf	210	2807	-1.443975437147642 USDA's Ag Handbook 8 and sequelae)
8	UBIQUINONE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	VALINE	Leaf	520	6952	-1.6094709264199443 USDA's Ag Handbook 8 and sequelae)

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
16	VANADIUM	Leaf	0.48	14.5	1.31294741924759	USDA's Ag Handbook 8 and sequelae)
5	VERBENONE	Shoot	--	7.2	-0.24693408290616778	
2	VIOLAXANTHIN	Leaf	--	--		Jim Duke's personal files.
0	VIT-B-6	Leaf	0.8	14	-0.1327208002557497	USDA's Ag Handbook 8 and sequelae)
0	VIT-U	Leaf	2	25		Jim Duke's personal files.
0	WATER	Leaf	891000	950000	0.7102430437249587	USDA's Ag Handbook 8 and sequelae)
0	YTTERBIUM	Leaf	0.19	8.7	0.4117051291548245	USDA's Ag Handbook 8 and sequelae)
0	YTTRIUM	Leaf	0.48	29	1.721486167978422	USDA's Ag Handbook 8 and sequelae)
77	ZINC	Leaf	2	36	-0.2751503815857314	
0	ZIRCONIUM	Leaf	1.4	203	2.600745699031103	