

P **Vaccinium myrtillus**

Common Name(s)

Bilberry, Dwarf Bilberry, Whortleberry

How Used

F

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
30	(+)-CATECHIN	Fruit	--	--	
30	(+)-CATECHIN	Leaf	--	--	
38	(-)-EPICATECHIN	Fruit	--	--	
38	(-)-EPICATECHIN	Leaf	--	--	
21	(-)-EPIGALLOCATECHIN	Leaf	--	--	
0	1,8-CINEOL	Fruit Juice	--	--	
0	2-HYDROXY-3-METHYLBUTANOIC-ACID-ETHYL-ESTER	Fruit Juice	--	--	
0	2-HYDROXY-3-METHYLBUTANOIC-ACID-METHYL-ESTER	Fruit Juice	0.02	0.02	
0	2-METHOXY-5-VINYL-PHENOL	Fruit Juice	--	--	

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2-METHYL-BUTAN-1-OL	Fruit Juice	--	--	
0	2-METHYL-BUTANOIC-ACID	Fruit Juice	0.06	0.06	1.00000000000000013
0	2-PHENYLETHANOL	Fruit Juice	0.02	0.02	
0	3,4-DIHYDROXYCINNAMIC-ACID	Fruit	--	--	
0	3-HYDROXY-3-METHYLBUTANOIC-ACID-ETHYL-ESTER	Fruit Juice	0.01	0.01	
0	3-HYDROXY-3-METHYLBUTANOIC-ACID-METHYL-ESTER	Fruit Juice	--	--	
0	3-PHENYL-PROPAN-1-OL	Fruit Juice	0.003	0.003	
0	4-HYDROXY-BENZOIC-ACID	Fruit Juice	--	--	
0	4-HYDROXY-BENZOIC-ACID	Leaf	--	--	
0	4-VINLYPHENOL	Fruit Juice	0.01	0.01	
16	ACETIC-ACID	Fruit Juice	0.32	0.32	-0.9999999999999999
0	ACETIC-ACID-2-PHENYL-ETHYL-ESTER	Fruit Juice	--	--	
0	ACETIC-ACID-HEX-CIS-3-ENYL-ESTER	Fruit Juice	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	ACETOIN	Fruit Juice	--	--		
23	ALPHA-TERPINEOL	Fruit Juice	0.015	0.015	-0.7625968906166204	
5	ALUMINUM	Fruit	25	318	-0.13100832398788578	
30	ANTHOCYANINS	Leaf	--	--		
0	ANTHOCYANOSIDES	Fruit	--	30000	1	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ANTHOCYANOSIDES	Leaf	3000	20000		
0	APS-SULFOTRANSFERASE	Leaf	--	--		
15	ARBUTIN	Fruit	--	--		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.
15	ARBUTIN	Leaf	--	3000	-0.7316170494453632	
15	ARBUTIN	Plant	15000	15000	-1.3286388424226248	
2	ARSENIC	Fruit	0.01	0.01	-0.5241085631054083	ACTA AGRIC SCAND SUPPL 22: 1980
112	ASCORBIC-ACID	Fruit	132	1650	-0.18189696747022557	
0	ASH	Fruit	3840	48000	-0.2243510805009802	
9	ASPERULOSIDE	Fruit	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
9	ASPERULOSIDE	Leaf	--	--	
7	ASTRAGALIN	Leaf	--	--	
7	ASTRAGALIN	Fruit	--	--	
7	AVICULARIN	Leaf	--	--	Gruenwald, J. et al. 1998. PDR for Herbal Medicine. 1st ed. Medical Economics Co., Montvale, NJ. 1244 pp. (abbreviated as PHR or Physicians Herbal Reference in my mind)
24	BENZALDEHYDE	Fruit Juice	--	--	
20	BENZOIC-ACID	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	BENZYL-ALCOHOL	Fruit Juice	0.08	0.08	
9	BETA-AMYRIN	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
53	BETA-CAROTENE	Fruit	4	47	-0.059950475940205736
47	BETA-SITOSTEROL	Fruit	--	--	
47	BETA-SITOSTEROL	Tissue Culture	--	--	
4	BORON	Fruit	0.6	10	-0.6025676490591996 ACTA AGRIC SCAND SUPPL 22: 1980

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	BROMINE	Fruit	--	1	-0.42563543443835	ACTA AGRIC SCAND SUPPL 22: 1980
0	BUTAN-1-OL	Fruit Juice	0.001	0.001	-0.9999999999999999	
0	BUTAN-2-OL	Fruit Juice	0.01	0.01	-1	
0	BUTANOIC-ACID	Fruit Juice	0.13	0.13	0.9999999999999999	
3	CADMIUM	Fruit	0.001	0.02	-0.5848464463574334	ACTA AGRIC SCAND SUPPL 22: 1980
102	CAFFEIC-ACID	Leaf	40	40	-0.7103779880667277	
102	CAFFEIC-ACID	Fruit Juice	--	--		
102	CAFFEIC-ACID	Fruit	--	--		
28	CALCIUM	Fruit	510	6380	0.582373090515347	
1	CAPROIC-ACID	Fruit Juice	0.04	0.04	-0.9999999999999997	
31	CARYOPHYLLENE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
43	CATECHIN	Leaf	--	--		
1	CATECHINS	Leaf	--	200000	1	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	CERYL-ALCOHOL	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
77	CHLOROGENIC-ACID	Leaf	2800	2800	1.0924264319161126	
77	CHLOROGENIC-ACID	Fruit	1900	1900	0.5534391651296359	
77	CHLOROGENIC-ACID	Fruit Juice	--	--		
24	CHROMIUM	Fruit	--	0.7	-0.4093125277624259	
0	CHRYSANTHEMIN	Fruit	--	--		
60	CINNAMALDEHYDE	Leaf	--	--		
60	CINNAMALDEHYDE	Fruit	--	--		
18	CINNAMIC-ACID	Leaf	--	--		
23	CITRIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
23	CITRIC-ACID	Fruit	--	--		
15	CITRONELLOL	Fruit Juice	0.001	0.001		
2	COBALT	Fruit	--	0.1	-0.5230092918235771	
12	COPPER	Fruit	0.7	6.3	-0.5073665269805587	ACTA AGRIC SCAND SUPPL 22: 1980
0	CYANADIN-3-O-ARABINOSIDE	Leaf	219	438		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
7	CYANIDIN	Fruit	--	--	
7	CYANIDIN	Leaf	--	--	
0	CYANIDIN-3-ARABINOSIDE	Fruit	--	--	
0	CYANIDIN-3-GALACTOSIDE	Fruit	--	--	
0	CYANIDIN-3-GLUCOSIDE	Fruit	--	--	
0	CYANIDIN-3-O-ARABINOSIDE	Leaf	219	438	
0	CYANIDIN-3-O-ARABINOSIDE	Fruit	--	--	
4	CYANIDIN-3-O-GALACTOSIDE	Fruit	--	--	
4	CYANIDIN-3-O-GALACTOSIDE	Leaf	275	550	
19	CYANIDIN-3-O-GLUCOSIDE	Fruit	--	--	
19	CYANIDIN-3-O-GLUCOSIDE	Leaf	342	684	
0	CYANIDIN-GLYCOSIDE	Plant	--	--	
9	DELPHINIDIN	Fruit	--	--	
0	DELPHINIDIN-3-MONOGLUCOSIDE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DELPHINIDIN-3-O-ARABINOSIDE	Fruit	--	--	
0	DELPHINIDIN-3-O-ARABINOSIDE	Leaf	432	864	
1	DELPHINIDIN-3-O-BETA-D-GLUCOSIDE	Fruit	--	--	
0	DELPHINIDIN-3-O-GALACTOSIDE	Leaf	504	1004	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	DELPHINIDIN-3-O-GALACTOSIDE	Fruit	--	--	
0	DELPHINIDIN-3-O-GLUCOSIDE	Leaf	581	1162	
0	DELPHINIDIN-3-RHAMNOGLYCOSIDE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DELPHINIDIN-5-MONOGLYCOSIDE	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DELPHINIDIN-GLYCOSIDE	Plant	--	--	
1	DELTA-DECALACTONE	Fruit Juice	--	--	
1	DIHYDROXYCINNAMIC-ACID	Fruit	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
40	EPICATECHIN	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	EPIGALLOCATECHIN	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	EPIMYRTINE	Shoot	4.3	4.3	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	EPIMYRTINE	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	ETHYL-2-METHYL-BUTYRATE	Fruit	--	--		
0	ETHYL-3-METHYLBUTYRATE	Fruit	--	--		
76	EUGENOL	Fruit Juice	0.01	0.01		
0	FAT	Fruit	1760	22000	-0.4732178594145328	
0	FAT	Seed	310000	310000	0.2349895147568526	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
61	FERULIC-ACID	Leaf	--	--		
61	FERULIC-ACID	Fruit Juice	--	--		
61	FERULIC-ACID	Fruit	--	--		
0	FIBER(CRUDE)	Fruit	--	89000	-0.6728110234170557	
0	FIBER(DIETARY)	Fruit	--	370000	-0.1454086686639877	
0	FLUORINE	Fruit	--	0.1	-1.2385741096298049	ACTA AGRIC SCAND SUPPL 22: 1980
0	FOENICULIN	Leaf	--	--		
0	FORMIC-ACID-2-PHENYL-ETHYL-ESTER	Fruit Juice	0.002	0.002		
8	FRUCTOSE	Fruit	37800	38200		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
62	GALLIC-ACID	Fruit Juice	--	--	
62	GALLIC-ACID	Leaf	--	--	
0	GALLOCATECHIN	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	GAMMA-BUTYROLACTONE	Fruit Juice	--	--	
3	GAMMA-DECALACTONE	Fruit Juice	0.022	0.022	
0	GAMMA-DODECALACTONE	Fruit Juice	--	--	
0	GAMMA-OCTALACTONE	Fruit Juice	0.045	0.045	
8	GENTISIC-ACID	Leaf	--	--	
35	GERANIOL	Fruit Juice	--	--	
7	GLUCOSE	Fruit	27600	31600	
0	HEX-CIS-3-EN-1-OL	Fruit Juice	0.06	0.06	
0	HEX-TRANS-2-EN-1-AL	Fruit Juice	0.06	0.06	
0	HEX-TRANS-2-EN-1-OIC-ACID	Fruit Juice	0.03	0.03	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	HEX-TRANS-2-EN-1-OL	Fruit Juice	0.01	0.01	-1	
0	HEXAN-1-OL	Fruit Juice	0.02	0.02		
0	HOMOPROTOCATECHUIC-ACID	Leaf	--	--		
32	HYDROQUINONE	Leaf	--	--		
32	HYDROQUINONE	Fruit	--	--		
0	HYDROXY-ISOCARVOMENTHOL	Fruit Juice	--	--		
30	HYPEROSIDE	Fruit Juice	--	--		
30	HYPEROSIDE	Fruit	--	--		
30	HYPEROSIDE	Leaf	--	--		
8	INOSITOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	INVERT-SUGARS	Fruit	300000	300000	0.8532031018639995	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	IRIDOIDS	Leaf	--	--		
6	IRON	Fruit	12	151	0.07148811973975773	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
6	IRON	Leaf	250	250	-0.28689375971144965 List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	ISOCHLOROGENIC-ACID	Leaf	2000	2000	
4	ISOCHLOROGENIC-ACID	Fruit	250	250	1
16	ISOEUGENOL	Fruit Juice	--	--	
4	ISOFERULIC-ACID	Leaf	--	--	
22	ISOQUERCITRIN	Leaf	--	--	
22	ISOQUERCITRIN	Fruit Juice	--	--	
0	LEAD	Fruit	0.04	0.7	-0.44890981456900714
0	LEUCOANTHOCYANINS	Leaf	--	--	
60	LIMONENE	Fruit Juice	--	--	
53	LINALOOL	Fruit Juice	0.004	0.004	-0.9999999999999998
15	LUTEIN	Tissue Culture	--	--	
15	LUTEIN	Fruit	2.6	26	1.4117785541906174
0	M-COUMARIC-ACID	Fruit	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	M-COUMARIC-ACID	Fruit Juice	--	--		
1	M-HYDROXYBENZOIC-ACID	Fruit	--	--		
1	M-HYDROXYBENZOIC-ACID	Fruit Juice	--	--		
65	MAGNESIUM	Fruit	312	3900	0.8197346940018424	
15	MALIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	MALVIDIN	Fruit	--	--		
0	MALVIDIN-3,5-DIGLUCOSIDE	Fruit	--	--		
0	MALVIDIN-3-O-ARABINOSIDE	Leaf	81	162		
0	MALVIDIN-3-O-ARABINOSIDE	Fruit	--	--		
0	MALVIDIN-3-O-BETA-D-GLUCOSIDE	Fruit	--	--		
0	MALVIDIN-3-O-GALACTOSIDE	Leaf	127	254		
0	MALVIDIN-3-O-GALACTOSIDE	Fruit	--	--		
0	MALVIDIN-3-O-GLUCOSIDE	Leaf	335	370		
0	MALVIDIN-GLYCOSIDE	Plant	--	--		
14	MANGANESE	Fruit	7	91	0.1965046391200611	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
14	MANGANESE	Leaf	2500	2500	3.6962602714553836	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	MELILOTIC-ACID	Leaf	--	--		
0	MERATRINE	Leaf	--	--		Gruenwald, J. et al. 1998. PDR for Herbal Medicine. 1st ed. Medical Economics Co., Montvale, NJ. 1244 pp. (abbreviated as PHR or Physicians Herbal Reference in my mind)
1	MERCURY	Fruit	--	0.001	-0.7865389313824043	ACTA AGRIC SCAND SUPPL 22: 1980
2	MOLYBDENUM	Fruit	--	0.1	-0.46519775248328327	ACTA AGRIC SCAND SUPPL 22: 1980
2	MONOTROPEIN	Fruit	--	--		
2	MONOTROPEIN	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	MONOTROPEIN	Stem	--	--		
0	MONOTROPEOSIDE	Leaf	--	--		
0	MONOTROPEOSIDE	Fruit	--	--		
1	MYRTILLIN	Fruit	--	--		
0	MYRTILLOL	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	MYRTINE	Shoot	17.5	17.5	
0	MYRTINE	Plant	10	10	
0	NEOCLOROGENIC-ACID	Leaf	140	140	
0	NEOCLOROGENIC-ACID	Fruit	10	10	
0	NEOMYRTILLIN	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	NEOMYRTILLIN	Shoot	--	--	
10	NEROL	Fruit Juice	0.002	0.002	
39	NIACIN	Fruit	5	65	0.057508760745179625
2	NONACOSANE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	NONAN-1-AL	Fruit Juice	--	--	
4	O-COUMARIC-ACID	Fruit Juice	--	--	
4	O-COUMARIC-ACID	Fruit	--	--	
64	OLEANOLIC-ACID	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
25	OPCS	Fruit	--	--	
9	OXALIC-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 Juice	--	--	
25	P-COUMARIC-ACID	Fruit	--	--	
25	P-COUMARIC-ACID	Leaf	--	--	
8	P-CRESOL	Fruit Juice	0.001	0.001	
0	P-DIMETHYL-ALPHA-STYRENE	Fruit Juice	--	--	
13	P-HYDROXY-BENZOIC-ACID	Fruit	--	--	
0	PAEONIDIN	Fruit	--	--	
0	PAEONIDIN-3-O-GALACTOSIDE	Fruit	--	--	
0	PARACOUMARIC-ACID	Fruit	--	--	
24	PECTIN	Fruit	4000	50000	-0.03661673030520101
0	PENTAN-1-OIC-ACID	Fruit Juice	--	--	
0	PENTAN-1-OL	Fruit Juice	0.05	0.05	0.9999999999999999

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	PENTYL-FURAN	Fruit Juice	--	--	
3	PEONIDIN	Leaf	--	--	
0	PEONIDIN-3-O-ARABINOSIDE	Leaf	22	44	
0	PEONIDIN-3-O-ARABINOSIDE	Fruit	--	--	
1	PEONIDIN-3-O-BETA-D-GLUCOSIDE	Fruit	--	--	
0	PEONIDIN-3-O-GALACTOSIDE	Leaf	34	68	
0	PEONIDIN-3-O-GALACTOSIDE	Fruit	--	--	
0	PEONIDIN-3-O-GLUCOSIDE	Leaf	131	262	
3	PETUNIDIN	Fruit	--	--	
0	PETUNIDIN-3-O-ARABINOSIDE	Leaf	108	216	
0	PETUNIDIN-3-O-ARABINOSIDE	Fruit	--	--	
1	PETUNIDIN-3-O-BETA-D-GLUCOSIDE	Fruit	--	--	
0	PETUNIDIN-3-O-GALACTOSIDE	Leaf	189	378	
0	PETUNIDIN-3-O-GALACTOSIDE	Fruit	--	--	
0	PETUNIDIN-3-O-GLUCOSIDE	Leaf	367	734	
0	PETUNIDIN-GLYCOSIDE	Plant	--	--	
26	PHENOL	Fruit Juice	0.03	0.03	
2	PHENYL-ACETALDEHYDE	Fruit Juice	0.003	0.003	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
4	PHOSPHORUS	Fruit	856	10700	2.2731902006060767
5	PHYLLOQUINONE	Fruit	--	0.04	-0.22673532125634782
14	POTASSIUM	Fruit	1338	16730	-0.10497458816336862
0	PROCYANIDIN-A-1	Leaf	--	--	
1	PROCYANIDIN-B-1	Fruit	--	--	
1	PROCYANIDIN-B-1	Leaf	--	--	
1	PROCYANIDIN-B-2	Leaf	--	--	
1	PROCYANIDIN-B-2	Fruit	--	--	
2	PROCYANIDIN-B-3	Fruit	--	--	
4	PROCYANIDIN-B-4	Leaf	--	--	
4	PROCYANIDIN-B-4	Fruit	--	--	
0	PROCYANIDIN-C-1	Leaf	--	--	
0	PROTEIN	Fruit	10320	129000	0.26142555134441664
43	PROTocatechuic-ACID	Fruit	--	--	
43	PROTocatechuic-ACID	Fruit Juice	--	--	
43	PROTocatechuic-ACID	Leaf	--	--	
176	QUERCETIN	Leaf	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
2	QUERCETIN-3'-GLUCOSIDE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUERCETIN-3-0-GALACTOSIDE	Leaf	--	--	
0	QUERCETIN-3-ARABINOSIDE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUERCETIN-3-GLUCOSIDOGUCOSIDE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUERCETIN-3-GLUCOSYL-GLUCOSIDE	Leaf	--	--	
0	QUERCETIN-3-GLUCURONIDE	Leaf	--	--	
1	QUERCETIN-3-O-RHAMNOSIDE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUERCETIN-3-RHAMNOSIDE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
44	QUERCITRIN	Leaf	--	--	
44	QUERCITRIN	Fruit Juice	--	--	
44	QUERCITRIN	Fruit	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
1	QUINIC-ACID	Leaf	20000	50000	0.7547340705685329	
0	RESINIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	RIBOFLAVIN	Fruit	0.2	2.6	-0.5159915584690182	
0	RUBIDIUM	Fruit	5	60	3.0850078278809683	ACTA AGRIC SCAND SUPPL 22: 1980
87	RUTIN	Leaf	--	--		
34	SALICYLIC-ACID	Leaf	--	--		
0	SALICYLIC-ACID-METHYL-ESTER	Fruit Juice	0.001	0.001		
60	SELENIUM	Fruit	0.2	2.8	0.30814666605054625	
4	SILICON	Fruit	--	--		
9	SINAPIC-ACID	Leaf	--	--		
1	SODIUM	Fruit	4	50	-0.17920934261084967	
7	SUCCINIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	SUCROSE	Fruit	--	--		
0	SUGARS	Fruit	12000	150000	-0.26503678076002984	
14	SULFUR	Fruit	130	1075	-0.2363356329259065	ACTA AGRIC SCAND SUPPL 22: 1980

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
6	SYRINGIC-ACID	Leaf	--	--		
6	SYRINGIC-ACID	Fruit	--	--		
6	SYRINGIC-ACID	Fruit Juice	--	--		
35	TANNIN	Fruit	50000	120000	0.2460348882910567	
35	TANNIN	Leaf	60000	200000	1.0922402514317946	
31	THIAMIN	Fruit	7	8	0.3414272755878574	
0	THIAMINE	Fruit	0.6	7.8	2.0731663991191227	
4	TIN	Fruit	4	50	-0.1811041243657825	
4	TRANS-2-HEXENAL	Fruit	--	--		
7	TRANS-CINNAMALDEHYDE	Fruit Juice	--	--		
0	TRANS-CINNAMYL-ALCOHOL	Fruit Juice	--	--		
89	URSOLIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
89	URSOLIC-ACID	Fruit	2500	2500	-0.2673024778	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
24	VANILLIC-ACID	Fruit	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
24	VANILLIC-ACID	Fruit Juice	--	--		
24	VANILLIC-ACID	Leaf	--	--		
28	VANILLIN	Fruit Juice	0.015	0.015		
0	WATER	Fruit	--	920000	0.6497106840979096	
5	ZEAXANTHIN	Tissue Culture	--	--		
77	ZINC	Fruit	1	8.7	-0.6499015135402889	