

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Brassica oleracea var. botrytis I.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
77	ZINC	Leaf	4.0	118.0	0.19739995136190341	--
77	ZINC	Flower	3.0	97.0	3.0606347490514247	--
24	VANILLIC-ACID	Plant				--
3	VALINE	Leaf	1280.0	13747.0	0.29552238675671566	--
3	VALINE	Flower	1000.0	12920.0		--
8	TYROSINE	Flower	430.0	5555.0		--
8	TYROSINE	Leaf	630.0	6766.0	-0.34477094479123366	--
29	TRYPTOPHAN	Flower	260.0	3360.0		--
29	TRYPTOPHAN	Leaf	290.0	3115.0	0.10979300838520059	--
2	TRANS-FERULIC-ACID	Leaf				--
4	THREONINE	Flower	720.0	9300.0		--
4	THREONINE	Leaf	910.0	9773.0	-0.005488458413534491	--
31	THIAMIN	Flower	0.6	12.0	1.9586178131455851	--
31	THIAMIN	Leaf	0.6	8.0	-0.06349209547044472	--
14	SULFUR	Leaf	1200.0	11800.0	1.6302603378370644	--
7	SUCCINIC-ACID	Flower				--
7	SUCCINIC-ACID	Plant				--
12	STIGMASTEROL	Flower	20.0	200.0		Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
12	STIGMASTEROL	Plant				--
8	STEARIC-ACID	Flower	30.0	390.0	0.6447612226140537	--
8	STEARIC-ACID	Leaf	70.0	752.0	-0.13186141525885503	--
10	SQUALENE	Plant				--
1	SODIUM	Leaf	252.0	3091.0	-0.09830203577402047	--
1	SODIUM	Flower	120.0	2300.0	0.7325478785988843	--
7	SINIGRIN	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	SINIGRIN	Flower	0.0	325.0		--
9	SINAPIC-ACID	Leaf		40.0	-0.5050096614914733	--
4	SILICON	Leaf	1.0	90.0	-0.14550202645318341	--
4	SILICON	Flower	2.0	125.0	2.1795902118292325	--
1	SERINE	Leaf	1000.0	10740.0	-0.003085924608790074	--
1	SERINE	Flower	1040.0	13440.0		--
60	SELENIUM	Flower				--
60	SELENIUM	Stem		0.015	-0.42886426089167784	--
60	SELENIUM	Leaf		0.024	-0.3807027917986485	--
34	SALICYLIC-ACID	Leaf				--
87	RUTIN	Leaf				--
15	RIBOFLAVIN	Flower	0.3	11.0	1.1243491725579133	--
15	RIBOFLAVIN	Leaf	1.1	21.0	-0.07942432526480918	--
1	QUINIC-ACID	Leaf				--
1	QUINIC-ACID	Flower				--
44	QUERCITRIN	Leaf				--
176	QUERCETIN	Leaf				--
176	QUERCETIN	Flower		6.0	-1.4106513565908647	--
4	PUFA	Flower	830.0	10725.0	1.333147880984072	--
1	PROGOITRIN	Leaf				--
1	PROGOITRIN	Flower	0.0	60.0		--
14	POTASSIUM	Leaf	3178.0	37270.0	0.3058332790917791	--
14	POTASSIUM	Flower	3300.0	49080.0	3.0578856743972493	--
2	PHYTOSTEROLS	Plant				--
2	PHYTOSTEROLS	Flower	180.0	1800.0		Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
9	PHYTIC-ACID	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
4	PHOSPHORUS	Leaf	644.0	9090.0	0.7577587277969241	--
4	PHOSPHORUS	Flower	385.0	7375.0	1.5411143666705196	--
7	PHENYLALANINE	Leaf	840.0	9022.0	-0.32366072893862124	--
7	PHENYLALANINE	Flower	710.0	9175.0		--
3	PHENETHYLAMINE	Flower		1.8		--
3	PHENETHYL- ISOTHIOCYANATE	Leaf				--
11	PANTOTHENIC-ACID	Flower	1.4	18.0	-1.0	--
11	PANTOTHENIC-ACID	Leaf	5.35	63.0	0.8524389937224381	--
13	PALMITIC-ACID	Leaf	470.0	5048.0	-0.2927982427753776	--
13	PALMITIC-ACID	Flower	240.0	3100.0	0.13966281921675727	--
13	P-HYDROXY-BENZOIC- ACID	Leaf				--
25	P-COUMARIC-ACID	Flower		35.0		--
25	P-COUMARIC-ACID	Leaf		13.0	-0.3465642412720655	--
9	OXALIC-ACID	Plant		68.0	-0.5351320075910592	--
18	OLEIC-ACID	Flower	120.0	1550.0	0.47798392866277417	--
18	OLEIC-ACID	Leaf	240.0	2578.0	-0.3066324749217592	--
3	NICKEL	Flower	0.03	12.0	1.0	--
3	NICKEL	Leaf	0.3	7.0	-0.28467312579555515	--
39	NIACIN	Flower	5.0	85.0	-0.09352864336463278	--
39	NIACIN	Leaf				--
1	NEOGLUCOBRASSICIN	Tissue Culture				--
1	NEOGLUCOBRASSICIN	Flower	8.0	450.0		--
1	NEOGLUCOBRASSICIN	Leaf	10.0	900.0		--
13	MUFA	Flower	120.0	1550.0	0.46291004988627577	--
2	MOLYBDENUM	Stem		1.76	-0.13934558811150258	--
2	MOLYBDENUM	Leaf	0.1	3.76	0.6801012829363977	--
2	MOLYBDENUM	Flower		0.1		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
1	METHYL-AMINE	Flower		65.0	1.0000000000000002	--
15	METHIONINE	Flower	280.0	3615.0		--
15	METHIONINE	Leaf	340.0	3652.0	0.46965125289987986	--
2	METHANOL	Plant				--
2	METHANOL	Flower				--
1	MERCURY	Leaf	0.002	0.09	1.1722789664445759	--
1	MERCURY	Flower	0.0	0.025	-0.9374693023756843	--
14	MANGANESE	Leaf	2.0	80.0	-0.32688920745367256	--
14	MANGANESE	Flower	1.5	48.0	-0.2230146829051698	--
15	MALIC-ACID	Plant				--
15	MALIC-ACID	Flower				--
65	MAGNESIUM	Leaf	214.0	3072.0	-0.406886321355332	--
65	MAGNESIUM	Flower	115.0	2250.0	-0.4063280335551449	--
4	LYSINE	Leaf	1410.0	15143.0	0.5181729835111131	--
4	LYSINE	Flower	1070.0	13825.0		--
27	LINOLEIC-ACID	Leaf	380.0	4081.0	-0.6928297779549968	--
27	LINOLEIC-ACID	Flower	190.0	2455.0	0.4542076634572454	--
2	LEUCINE	Leaf	1310.0	14069.0	-0.3764770761728601	--
2	LEUCINE	Flower	1160.0	15000.0		--
75	KAEMPFEROL	Leaf				--
75	KAEMPFEROL	Flower		30.0	-1.0760015465680726	--
3	ISOLEUCINE	Leaf	1090.0	11707.0	-0.09196747371544084	--
3	ISOLEUCINE	Flower	760.0	9820.0		--
6	IRON	Flower	5.0	122.0	-0.3012855132197258	--
6	IRON	Leaf	8.0	109.0	-0.6442917506016965	--
32	INDOLE-3-CARBINOL	Leaf				--
3	INDOLE-3-ACETONITRILE	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	HISTIDINE	Flower	400.0	5165.0		--
7	HISTIDINE	Leaf	500.0	5370.0	-0.0031655528062669996	--
1	HEXYL-ACETATE	Plant				--
12	GLYCINE	Leaf	950.0	10203.0	-0.05657990592554876	--
12	GLYCINE	Flower	640.0	8270.0		--
8	GLUTAMIC-ACID	Leaf	3750.0	40275.0	0.12712766718145815	--
8	GLUTAMIC-ACID	Flower	2650.0	34240.0		--
1	GLUCORAPHANIN	Leaf	255.0	8990.0		--
1	GLUCORAPHANIN	Flower	0.0	990.0		--
1	GLUCONASTURTIN	Leaf	0.0	145.0		--
1	GLUCONASTURTIN	Flower				--
1	GLUCOIBERIN	Leaf	0.0	248.0		--
1	GLUCOIBERIN	Flower	0.0	1600.0		--
1	GLUCOBRASSICIN	Leaf	30.0	580.0		--
1	GLUCOBRASSICIN	Flower	60.0	1670.0		--
7	FUMARIC-ACID	Plant				--
7	FUMARIC-ACID	Flower				--
15	FOLACIN	Leaf	0.64	8.4	-0.15226470429048047	--
15	FIBER	Leaf	10760.0	122866.0	-0.47818554218157117	--
15	FIBER	Flower	8000.0	132000.0	0.00499085884442514	--
61	FERULIC-ACID	Leaf		13.0	0.08918222301645602	--
24	ETHANOL	Plant				--
24	ETHANOL	Flower				--
2	DIMETHYL-DISULFIDE	Plant				--
2	DIMETHYL-AMINE	Flower		14.0	1.0	--
2	CYSTINE	Leaf	200.0	2148.0	-0.6472110127615397	--
2	CYSTINE	Flower	230.0	2970.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	COPPER	Leaf	0.68	52.0	0.6699011255650867	--
12	COPPER	Flower	0.3	8.0	-0.9960623124329469	--
2	COBALT	Leaf	0.02	0.6	-0.29531921745391343	--
2	COBALT	Flower	0.001	0.125	-0.5425117041971756	--
23	CITRIC-ACID	Plant				--
23	CITRIC-ACID	Flower				--
18	CINNAMIC-ACID	Leaf				--
24	CHROMIUM	Flower	0.001	0.125	-1.3473800790006203	--
24	CHROMIUM	Leaf	0.005	0.18	-0.6314530785674829	--
21	CHLOROPHYLL	Leaf				--
77	CHLOROGENIC-ACID	Leaf				--
2	CAMPESTEROL	Flower	30.0	300.0		Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
28	CALCIUM	Flower	210.0	4040.0	-0.4787571488570857	--
28	CALCIUM	Leaf	360.0	54247.0	2.4468006382605774	--
102	CAFFEIC-ACID	Leaf		8.0	-0.7148173591555008	--
3	CADMIUM	Leaf	0.01	0.18	-0.7863999904697607	--
3	CADMIUM	Flower	0.003	0.25		--
4	BORON	Stem		21.0	-0.7419113414039952	--
4	BORON	Leaf	1.0	85.0	0.6469238451071857	--
4	BORON	Flower	1.0	76.0	1.2304541664359345	--
47	BETA-SITOSTEROL	Plant				--
47	BETA-SITOSTEROL	Flower	120.0	1200.0	-0.7745775450534552	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
2	BETA-CRYPTOXANTHIN	Plant				--
53	BETA-CAROTENE	Leaf	9.0	138.0	-0.5369565297726103	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
53	BETA-CAROTENE	Flower		4.0	-0.5606735845287268	--
9	BETA-AMYRIN	Flower				--
9	BETA-AMYRIN	Bud				--
3	ASPARTIC-ACID	Leaf	2130.0	22876.0	-0.262328714251028	--
112	ASCORBIC-ACID	Flower	660.0	9300.0	2.0283569773652044	--
112	ASCORBIC-ACID	Leaf	911.0	10360.0	0.5173558895778465	--
2	ARSENIC	Flower				--
2	ARSENIC	Leaf				--
14	ARGININE	Leaf	1450.0	15573.0	-0.25040545078848814	--
14	ARGININE	Flower	960.0	12400.0		--
5	ALUMINUM	Leaf	1.0	27.0	-0.7515974845433717	--
5	ALUMINUM	Flower	1.0	150.0	0.9080903837793464	--
32	ALPHA-TOCOPHEROL	Leaf	7.0	439.0	0.35927304562664447	--
32	ALPHA-TOCOPHEROL	Flower	0.3	4.0	-1.0	--
15	ALPHA-LINOLENIC-ACID	Leaf	1290.0	13855.0	1.243183883058032	--
7	ALPHA-CAROTENE	Plant				--
10	ALPHA-AMYRIN	Bud				--
10	ALPHA-AMYRIN	Flower				--
16	ALLYL-ISOTHIOCYANATE	Leaf				--
3	ALANINE	Leaf	1180.0	12673.0	0.017867252591863454	--
3	ALANINE	Flower	1050.0	13565.0		--
3	ACETONE	Leaf				--
3	ACETONE	Flower				--
4	4-VINYL-GUAIACOL	Plant				--
1	4-HYDROXY-GLUCOBRASSICIN	Flower	7.0	390.0		--
1	4-HYDROXY-GLUCOBRASSICIN	Leaf	3.0	325.0		--