

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Cichorium intybus

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	WATER	Leaf	931000.0	951000.0	0.7152320256671255	USDA's Ag Handbook 8 and sequelae)
0	CARBOHYDRATES	Root	175100.0	875500.0	0.5834772969600167	USDA's Ag Handbook 8 and sequelae)
19	INULIN	Root	80000.0	850000.0	2.568442619517879	--
0	WATER	Root	240000.0	800000.0	0.2012998824504101	--
0	CARBOHYDRATES	Leaf	32000.0	654000.0	0.33520537705808534	--
0	SUGARS	Root		585000.0	4.656820199809224	--
0	PROTEIN	Leaf	10000.0	246000.0	0.34072863379732415	--
8	FRUCTOSE	Root	45000.0	220000.0	1.999334825861607	--
0	ASH	Leaf	6000.0	180000.0	1.0773581121700988	USDA's Ag Handbook 8 and sequelae)
15	FIBER	Plant	9000.0	153000.0	-0.5161042249299459	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
14	SUCROSE	Root		140000.0	0.1611945921135931	--
15	FIBER	Root	19500.0	97500.0	0.20849392887813434	--
0	PROTEIN	Root	14000.0	86000.0	-0.3639841360982529	--
0	PENTOSANE	Root	47000.0	65000.0	1.0	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	CELLULOSE	Root		50000.0	-1.0	--
0	ASH	Root	8900.0	44500.0	-0.6584550332799385	--
14	POTASSIUM	Leaf	1820.0	37128.0	0.2995628765550062	USDA's Ag Handbook 8 and sequelae)
0	FAT	Leaf	1000.0	29000.0	-0.5472316463900033	USDA's Ag Handbook 8 and sequelae)
0	SILICA	Leaf		27800.0	0.9413150747474829	--
28	CALCIUM	Leaf	790.0	19900.0	0.09995100214309341	--
0	FAT	Root	2000.0	16000.0	-0.2294322736898297	--
14	ARGININE	Leaf	660.0	14892.0	-0.29705091845608234	USDA's Ag Handbook 8 and sequelae)
14	POTASSIUM	Root	2900.0	14500.0	-0.09363688811813217	--
87	RUTIN	Leaf		14000.0	-0.1353936273578098	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ISOLEUCINE	Leaf	540.0	12240.0	0.045339706929741146	USDA's Ag Handbook 8 and sequelae)
7	GLUCOSE	Root		11000.0	-0.4327088902399002	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	VALINE	Leaf	410.0	9180.0	-0.9848461873827702	USDA's Ag Handbook 8 and sequelae)
2	LEUCINE	Leaf	390.0	8976.0	-1.160783880324028	USDA's Ag Handbook 8 and sequelae)
4	PUFA	Leaf	440.0	8030.0	-1.576432461803007	USDA's Ag Handbook 8 and sequelae)
4	LYSINE	Leaf	350.0	7956.0	-1.1182801972380008	USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Leaf	370.0	7548.0	-0.10687088053184475	USDA's Ag Handbook 8 and sequelae)
87	RUTIN	Seed		6400.0	0.07536225897017279	--
4	THREONINE	Leaf	250.0	5712.0	-1.367011082098785	USDA's Ag Handbook 8 and sequelae)
7	PHENYLALANINE	Leaf	220.0	4896.0	-1.3885269608474589	USDA's Ag Handbook 8 and sequelae)
0	SFA	Leaf	240.0	4380.0	-0.45748721001349424	USDA's Ag Handbook 8 and sequelae)
4	PUFA	Root	870.0	4350.0	-0.318698697794576	USDA's Ag Handbook 8 and sequelae)
13	PALMITIC-ACID	Leaf	210.0	4284.0	-0.3076698789052898	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Leaf	210.0	4284.0	-0.12648268363942136	--
2	PALMITOLEIC-ACID	Root	750.0	3750.0	1.9212861697652845	USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Root	750.0	3750.0	0.23419013142339878	--
29	TRYPTOPHAN	Leaf	160.0	3672.0	0.6804048665688907	USDA's Ag Handbook 8 and sequelae)
7	HISTIDINE	Leaf	150.0	3468.0	-0.9576955368033032	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Root	610.0	3050.0	-0.0821867763972658	--
65	MAGNESIUM	Leaf	130.0	2652.0	-0.5690626388509602	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Root	500.0	2500.0	0.6512650124326103	--
0	SFA	Root	480.0	2400.0	-0.20544019680514997	USDA's Ag Handbook 8 and sequelae)
13	PALMITIC-ACID	Root	410.0	2050.0	-0.30431334760427364	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	CALCIUM	Root	410.0	2050.0	-0.5862286623630208	--
112	ASCORBIC-ACID	Leaf	100.0	2040.0	-0.254634091901897	--
3	CICHORIIN	Flower	1000.0	2000.0		--
0	MONOCAFFEYOYL TARTARIC-ACID	Leaf		1800.0		--
1	SODIUM	Leaf	70.0	1428.0	-0.3936622771435691	USDA's Ag Handbook 8 and sequelae)
15	METHIONINE	Leaf	50.0	1224.0	-1.5483275310004487	USDA's Ag Handbook 8 and sequelae)
15	ALPHA-LINOLENIC-ACID	Leaf	60.0	1224.0	-1.0636070799711819	USDA's Ag Handbook 8 and sequelae)
10	CHICORIC-ACID	Leaf		1100.0		--
65	MAGNESIUM	Root	220.0	1100.0	-0.7776954016677178	--
102	CAFFEIC-ACID	Leaf		767.0	-0.6095210261436637	--
15	ALPHA-LINOLENIC-ACID	Root	130.0	650.0	-0.32107850770475904	USDA's Ag Handbook 8 and sequelae)
0	RUBBER	Root		420.0	-0.4734657197361741	--
18	OLEIC-ACID	Leaf	20.0	408.0	-0.6177088987554278	USDA's Ag Handbook 8 and sequelae)
13	MUFA	Leaf	20.0	365.0	-0.692331152044028	USDA's Ag Handbook 8 and sequelae)
112	ASCORBIC-ACID	Root	50.0	250.0	-0.5030624603012167	--
6	IRON	Leaf	5.0	246.0	-0.29703270980762686	USDA's Ag Handbook 8 and sequelae)
53	BETA-CAROTENE	Leaf	0.0	228.0	-0.14501134388228565	USDA's Ag Handbook 8 and sequelae)
6	MYRISTIC-ACID	Leaf	10.0	204.0	-0.6023075913949533	USDA's Ag Handbook 8 and sequelae)
8	STEARIC-ACID	Leaf	10.0	204.0	-0.48893321127321177	USDA's Ag Handbook 8 and sequelae)
13	MUFA	Root	40.0	200.0	-0.8770490931439714	USDA's Ag Handbook 8 and sequelae)
18	OLEIC-ACID	Root	40.0	200.0	-0.6297846550737646	USDA's Ag Handbook 8 and sequelae)
6	MYRISTIC-ACID	Root	30.0	150.0	-0.5390201665235613	USDA's Ag Handbook 8 and sequelae)
0	CICHORALEXIN	Leaf		146.5		--
39	NIACIN	Leaf	5.0	102.0	0.05472679513303063	USDA's Ag Handbook 8 and sequelae)
7	SALICYLATES	Leaf	10.0	100.0	-0.3593779047496331	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	STEARIC-ACID	Root	20.0	100.0	-0.6446087280612671	USDA's Ag Handbook 8 and sequelae)
0	CREPIDIASIDE-B	Root		100.0		--
6	IRON	Root	8.0	40.0	-0.38354158556693424	--
15	RIBOFLAVIN	Leaf	1.0	29.0	-0.04192444032714655	USDA's Ag Handbook 8 and sequelae)
39	NIACIN	Root	4.0	20.0	-0.8763923978074498	USDA's Ag Handbook 8 and sequelae)
4	BORON	Root		20.0	-0.14974023395860875	Betting on Boron, Unpublished draft by J. A. Duke on file at USDA, draft and papers relating to boron percentages. Includes Internat. Z. Vit. Ern. Forschung 43:1973 (boron).
75	KAEMPFEROL	Seed		20.0		--
5	8-DEOXYLACTUCIN	Root		17.0		--
31	THIAMIN	Leaf	1.0	14.0	1.1869303740705777	USDA's Ag Handbook 8 and sequelae)
13	P-HYDROXY-BENZOIC-ACID	Leaf		11.0	-0.7729405090241419	--
0	CICHORIOSIDE-C	Root		8.0		--
0	SONCHUSIDE-A	Root		7.0		--
0	CICHORIOSIDE-B	Root		6.0		--
15	RIBOFLAVIN	Root	0.0	2.0	-0.45399811156287	USDA's Ag Handbook 8 and sequelae)
31	THIAMIN	Root	0.0	2.0	-0.41582954985618054	USDA's Ag Handbook 8 and sequelae)
0	CICHORIOLIDE-A	Root		2.0		--
0	SONCHUSIDE-C	Root		2.0		--
176	QUERCETIN	Seed		1.0		--
0	VITAMIN-B-2	Root		0.7		--
61	FERULIC-ACID	Leaf		0.5	-1.0842680798316504	--
24	VANILLIC-ACID	Leaf		0.5	-1.181981260366695	--
9	SINAPIC-ACID	Plant		0.5	-1.0	--
24	VITAMIN-B-1	Root		0.05		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
10	CHICORIC-ACID	Plant				--
77	CHLOROGENIC-ACID	Plant				--
0	ALPHA-LACTUCEROL	Plant				--
0	VITAMIN-A	Leaf				--
1	LEVULOSE	Fruit Juice				--
24	PECTIN	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	HARMAN	Root				--
3	SILVER	Root				--
1	11(S),13-DIHYDROLACTUCIN	Root				--
4	ISOCHLOROGENIC-ACID	Root				--
77	ZINC	Root				--
14	CICHORIC-ACID	Leaf				--
0	CATECHOL-TANNINS	Root				--
3	PONTICAEOXIDE	Root				--
10	ALPHA-AMYRIN	Seed				--
0	URIDINE-5'-DIPHOSPHOGLUCOSE	Root				--
0	LACTUPICRIN-METHYL-ESTER	Plant				--
4	LACTUCOPICRIN	Root				--
4	SILICON	Root				--
1	11(S),13-DIHYDRO-8-DEOXYLACTUCIN	Root				--
19	INULIN	Leaf				--
0	CERYL-ALCOHOL	Plant				--
20	CHOLINE	Root				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
22	CATECHOL	Root				--
13	PALMITIC-ACID	Seed				--
33	AESCULIN	Leaf				--
22	UMBELLIFERONE	Plant				--
2	LACTUPICRIN	Plant				--
0	LACTUCIN-P-OXYPHENYLACETICACID-ESTER	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	CICHORIIN	Leaf				--
176	QUERCETIN	Plant				--
30	HYPEROSIDE	Shoot				--
3	MANNOSE	Root				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
102	CAFFEIC-ACID	Shoot				--
0	TRANS-ZEATIN	Root				--
18	OLEIC-ACID	Seed				--
0	TRIDECA-1,5-DIEN-7,9,11-TRIYNE-3,4-DIOL	Root				--
2	TARAXASTEROL	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	LACTUCOPICRIN	Latex Exudate				--
6	LACTUCIN	Latex Exudate				--
33	AESCULIN	Plant				--
3	CICHORIIN	Root				--
44	SCOPOLETIN	Plant				--
2	PROTOCATECHUIC-ALDEHYDE	Seed				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
30	HYPEROSIDE	Leaf				--
18	MANNITOL	Plant				--
0	BETA-LACTUCEROL	Plant				--
0	3-GLUCURONIDE-ISORHAMNETIN	Plant				--
8	INOSITOL	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	NEO-CHLOROGENIC-ACID	Shoot				--
35	TANNIN	Plant				--
4	LACTUCOPICRIN	Fruit Juice				--
75	KAEMPFEROL	Plant				--
32	AESCULETIN	Plant				--
0	TITANIUM	Root				--
3	CICHORIIN	Plant				--
0	DICAFFEOYL-TARTARIC-ACID	Shoot				--
0	MANNAN	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	BETA-AMYRIN	Seed				--
0	3-GLUCURONIDE-ISORHAMNETIN	Leaf				--
2	NEO-CHLOROGENIC-ACID	Root				--
6	LACTUCIN	Root				--
0	JACQUINELIN	Root				--
32	AESCULETIN	Leaf				--
6	TARTARIC-ACID	Plant				--
61	FERULIC-ACID	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	ISOCHLOROGENIC-ACID	Plant				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)
0	DELPHINIDIN-3-(6'-MALONYLGLUCOSIDE)-5-MALONYLGLUCOSIDE	Inflorescence				--
7	ASTRAGALIN	Plant				--
0	3-O-P-COUMAROYL-QUINIC-ACID	Shoot				--
6	LACTUCIN	Plant				--
5	8-DEOXYLACTUCIN	Plant				--
0	CHRYSANTHEMIN	Leaf				--
30	HYPEROSIDE	Plant				--
0	CYANAROSIDE	Shoot				--
7	ASTRAGALIN	Leaf				--
0	3-O-FERULOYL-QUINIC-ACID	Shoot				--
15	MALIC-ACID	Plant				--
6	LACTUCIN	Fruit Juice				--
6	TARTARIC-ACID	Shoot				--
8	STEARIC-ACID	Plant				--
2	NORHARMAN	Root				--
77	CHLOROGENIC-ACID	Leaf				--
0	DICAFFEOYL-TARTARIC-ACID	Plant				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)
44	QUERCITRIN	Shoot				--
0	APIGENIN-7-O-ALPHA-L-ARABINOSIDE	Shoot				--
0	(11S)-11,13-DIHYDROLACTUCOPICRIN	Root				--



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	LUTEOLIN-7-O-BETA-D-GLUCURONIDE	Plant				--
0	KAEMPFEROL-3-O-BETA-D-GLUCURONIDE	Plant				--
8	STEARIC-ACID	Seed				--
6	ACETOPHENONE	Root				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.
77	CHLOROGENIC-ACID	Shoot				--
29	ESCULIN	Flower				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar. Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	CREPIDIASIDE-B	Plant				--
2	QUERCETIN-3-O-BETA-D-GLUCURONIDE	Plant				--
57	COUMARIN	Plant				--
101	APIGENIN	Shoot				--
0	(11S)-11,13-DIHYDROLACTUCIN	Root				--
22	UMBELLIFERONE	Flower				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar. Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
0	LUTEOLIN-7-O-BETA-D-GLUCURONIDE	Leaf				--
23	CITRIC-ACID	Plant				--
0	KAEMPFEROL-3-O-BETA-D-GLUCURONIDE	Leaf				--
77	CHLOROGENIC-ACID	Root				--
30	ESCULETIN	Flower				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar. Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CICHORIOSIDE-B	Plant				--
2	QUERCETIN-3-O-BETA-D-GLUCURONIDE	Leaf				--
12	COPPER	Root				--
5	ALUMINUM	Root				--
14	BETAINE	Root				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
27	LINOLEIC-ACID	Seed				--
1	11(S),13-DIHYDROLACTUCOPICRIN	Root				--
44	SCOPOLETIN	Flower				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.