

**Dr. Duke's Phytochemical and Ethnobotanical Database**

**Chemicals Found in *Crataegus monogyna***

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
30	(+)-CATECHIN	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
38	(-)-EPICATECHIN	Plant	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
19	ACETYL-CHOLINE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
11	ADENINE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
28	ADENOSINE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
33	AESCULIN	Inflorescence	--	--		
101	APIGENIN	Leaf	--	--		
101	APIGENIN	Fruit	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
101	APIGENIN	Flower	--	--		
102	CAFFEIC-ACID	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
77	CHLOROGENIC-ACID	Plant	--	--		Schussler, M., Fricke, U., Nikolov, N., and Holzl, J. 1991. Comparison of the Flavonoids Occurring in Crataegus species and Inhibition of 3',5'-Cyclic Adenosine Monophosphate Phosphodiesterase. Plant Medica 57: Suppl Issue 2. p.A-133.
20	CHOLINE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	DIMETHYL-AMINE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	DIMETHYL-AMINE	Inflorescence	--	--		
1	GUANINE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
30	HYPEROSIDE	Flower	--	--		
30	HYPEROSIDE	Shoot	--	--		
30	HYPEROSIDE	Inflorescence	--	--		
30	HYPEROSIDE	Leaf	--	2000	-0.3542508923930064	
30	HYPEROSIDE	Plant	--	10000	-0.707106781186548	
4	ISOORIENTIN	Leaf	--	--		
22	ISOQUERCITRIN	Leaf	--	--		
4	ISOVITEXIN	Inflorescence	--	--		
4	ISOVITEXIN	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
75	KAEMPFEROL	Leaf	--	--		
75	KAEMPFEROL	Inflorescence	--	--		
75	KAEMPFEROL	Flower	--	--		
1	KAEMPFEROL=3=NEOHESPERIDOSIDE	Flower	--	1800		
78	LUTEOLIN	Fruit	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
78	LUTEOLIN	Tissue Culture	--	--		
6	MASLINIC-ACID	Inflorescence	--	--		
1	NEOSCHAFTOSIDE	Flower	--	--		
1	NEOSCHAFTOSIDE	Leaf	--	0.5		
64	OLEANOLIC-ACID	Inflorescence	--	--		
64	OLEANOLIC-ACID	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
25	OPC	Shoot	10000	30000		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
4	ORIENTIN	Inflorescence	--	--		
4	ORIENTIN	Leaf	--	--		
34	PROANTHOCYANIDINS	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
11	PROCYANIDIN	Leaf	--	--		
1	PROCYANIDIN-B-1	Leaf	--	--		
1	PROCYANIDIN-B-1	Pericarp	--	--		
1	PROCYANIDIN-B-2	Pericarp	--	--		
1	PROCYANIDIN-B-2	Leaf	--	--		
4	PROCYANIDIN-B-4	Leaf	--	--		
4	PROCYANIDIN-B-4	Pericarp	--	--		
6	PYCGNOGENOL	Shoot	10000	30000		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
176	QUERCETIN	Inflorescence	--	--		
176	QUERCETIN	Leaf	--	20	-0.3517072116309935	
176	QUERCETIN	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
176	QUERCETIN	Flower	--	--		
87	RUTIN	Flower	--	--		
87	RUTIN	Inflorescence	--	--		
87	RUTIN	Leaf	--	--		
5	SAPONINS	Fruit	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	SCHAFTOSIDE	Leaf	--	9	-1	
1	SCHAFTOSIDE	Flower	--	--		
4	SPIRAEOSIDE	Leaf	--	--		
4	SPIRAEOSIDE	Flower	--	--		
1	TRIACONTAN-1-OL	Shoot	--	--		
1	TRIMETHYLAMINE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
11	TYRAMINE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
89	URSOLIC-ACID	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
89	URSOLIC-ACID	Inflorescence	--	--		
12	VICENIN-2	Leaf	--	3		
12	VICENIN-2	Flower	--	--		
18	VITEXIN	Flower	--	--		
18	VITEXIN	Inflorescence	--	--		
18	VITEXIN	Fruit	--	--		
18	VITEXIN	Leaf	--	--		

<b>Activity Count</b>	<b>Chemical</b>	<b>Plant Part</b>	<b>Low PPM</b>	<b>High PPM</b>	<b>StdDev</b>	<b>Reference Citation</b>
18	VITEXIN	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
1	VITEXIN-2'-O-RHAMNOSIDE	Inflorescence	--	--		
1	VITEXIN-2'-O-RHAMNOSIDE	Leaf	--	--		