

P ***Crataegus monogyna***

Common Name(s)

English Hawthorn, Hawthorn

How Used

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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.
0	2"-O-RHAMNOSIDE-ISOORIENTIN	Leaf	--	--		
0	2"-O-RHAMNOSIDE-ISOVITEXIN	Leaf	--	--		
0	2"-O-RHAMNOSYL-ISOORIENTIN	Flower	--	--		
0	2"-O-RHAMNOSYL-ISOVITEXIN	Flower	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	2"-O-RHAMNOSYL-ORIENTIN	Flower	--	--		
0	2"-O-RHAMNOSYL-VITEXIN	Flower	--	--		
0	2-ALPHA-HYDROXY-OLEANOLIC-ACID	Plant	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	2-PHENYLCHROMONE	Flower	--	--		
0	4'-ACETYL-2-RHAMNOside	Plant	--	5000		
0	ACANTOLIC-ACID	Plant	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 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.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
33	AESCULIN	Inflorescence	--	--		
0	AMINOPURINE	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	--	--		
0	APS-SULFOTRANSFERASE	Leaf	--	--		
0	BETA-PHENYLETHYLAMINE	Plant	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
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.	

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 <i>Crataegus</i> species and Inhibition of 3',5'-Cyclic Adenosine Monophosphate Phosphodiesterase. <i>Plant Medica</i> 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.
0	CRATAEGOLIC-ACID	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	--	--		
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.
0	DOCOSAN-1-OL	Shoot	--	--		
0	EICOSAN-1-OL	Shoot	--	--		
0	ETHANOLAMINE	Inflorescence	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	ETHANOLAMINE	Plant	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ETHYL-AMINE	Plant	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ETHYL-AMINE	Inflorescence	--	--		
0	FLAVONOIDS	Shoot	10000	20000	-0.47676335348397514	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	FLAVONOIDS	Inflorescence	--	30500		
0	GLOGOSIDE	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.
0	HEPTACOSAN-1-OL	Shoot	--	--		
0	HEXACOSAN-1-OL	Shoot	--	--		
30	HYPEROSIDE	Shoot	--	--		
30	HYPEROSIDE	Inflorescence	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
30	HYPEROSIDE	Leaf	--	2000	-0.3542508923930064	
30	HYPEROSIDE	Plant	--	10000	-0.707106781186548	
30	HYPEROSIDE	Flower	--	--		
0	ISOAMYL-AMINE		Inflorescence	--	--	
0	ISOAMYL-AMINE		Plant	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ISOBUTYL-AMINE		Plant	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
4	ISOORIENTIN		Leaf	--	--	
22	ISOQUERCITRIN		Leaf	--	--	
0	ISOSCHAFTOSIDE		Leaf	--	10	-1
0	ISOSCHAFTOSIDE		Flower	--	--	
4	ISOVITEXIN		Inflorescence	--	--	
4	ISOVITEXIN		Leaf	--	--	
75	KAEMPFEROL		Inflorescence	--	--	
75	KAEMPFEROL		Flower	--	--	
75	KAEMPFEROL		Leaf	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
1	KAEMPFEROL=3=NEOHESPERIDOSIDE	Flower	--	1800		
78	LUTEOLIN	Tissue Culture	--	--		
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.
6	MASLINIC-ACID	Inflorescence	--	--		
0	N-1-N-5-N-10-TRI-TRANS-4-COUMAROYL-SPERMIDINE	Flower	--	--		
0	NEIOSCHAFTOSIDE	Leaf	--	--		
1	NEOSCHAFTOSIDE	Flower	--	--		
1	NEOSCHAFTOSIDE	Leaf	--	0.5		
0	NEOTEGOLIC-ACID	Plant	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	NONACOSAN-1-OL	Shoot	--	--		
0	NONADECAN-1-OL	Shoot	--	--		
0	O-METHOXY-PHENYLETHYLAMINE	Plant	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	OCTACOSAN-1-OL	Shoot	--	--		
0	OCTADECAN-1-OL	Shoot	--	--		
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.
64	OLEANOLIC-ACID	Inflorescence	--	--		
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	--	--		
0	ORIENTIN-2"-O-RHAMNOSIDE	Leaf	--	--		
0	ORIENTIN-GLYCOSIDES	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.
0	ORIENTIN-RHAMNOSIDE	Inflorescence	--	--		
0	PENTACOSAN-1-OL	Shoot	--	--		
0	PROANTHOCYANIDIN-B2	Flower	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
34	PROANTHOCYANIDINS	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
11	PROCYANIDIN	Leaf	--	--		
1	PROCYANIDIN-B-1	Leaf	--	--		
1	PROCYANIDIN-B-1	Pericarp	--	--		
1	PROCYANIDIN-B-2	Leaf	--	--		
1	PROCYANIDIN-B-2	Pericarp	--	--		
4	PROCYANIDIN-B-4	Leaf	--	--		
4	PROCYANIDIN-B-4	Pericarp	--	--		
0	PROCYANIDIN-B-5	Leaf	--	--		
0	PROCYANIDIN-B-5	Pericarp	--	--		
0	PROCYANIDIN-C-1	Leaf	--	--		
0	PROCYANIDIN-C-1	Pericarp	--	--		
0	PROCYANIDIN-D-1	Leaf	--	--		
0	PROCYANIDIN-D-1	Pericarp	--	--		
0	PROCYANIDIN-E	Leaf	--	--		
0	PROCYANIDIN-E	Pericarp	--	--		
0	PROCYANIDIN-G	Pericarp	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	PROCYANIDIN-G	Leaf	--	--		
6	PYCNOCENOL	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	Flower	--	--		
176	QUERCETIN	Plant	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	QUERCETIN-3-O-RHAMNOGALACTOSIDE	Leaf	--	--		
0	QUERCETIN-3-RHAMNOGALACTOSIDE	Plant	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	RHAMNOSYLORIENTIN	Inflorescence	--	--		
0	RHAMNOSYLVITEXIN	Inflorescence	--	--		
87	RUTIN	Inflorescence	--	--		
87	RUTIN	Flower	--	--		
87	RUTIN	Leaf	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	SAPONARETIN-RHAMNOSIDE	Inflorescence	--	--		
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.
1	SCHAFTOSIDE	Flower	--	--		
1	SCHAFTOSIDE	Leaf	--	9	-1	
0	SEXANGULARETIN	Flower	--	--		
0	SEXANGULARETIN-3-O-BETA-D-GLUCOSIDE	Flower	--	16000		
0	SEXULARETIN	Flower	--	--		
4	SPIRAEOSIDE	Flower	--	--		
4	SPIRAEOSIDE	Leaf	--	--		
0	TANNINS	Flower	--	--		
0	TETRACOSAN-1-OL	Shoot	--	--		
1	TRIACONTAN-1-OL	Shoot	--	--		
0	TRICOSAN-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.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
11	TYRAMINE	Plant	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	URIC-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	--	--		
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.
0	VICENIN-1	Leaf	--	3		
0	VICENIN-1	Flower	--	--		
12	VICENIN-2	Flower	--	--		
12	VICENIN-2	Leaf	--	3		
0	VICENIN-3	Leaf	--	3		
0	VICENIN-3	Flower	--	--		
18	VITEXIN	Fruit	--	--		
18	VITEXIN	Leaf	--	--		
18	VITEXIN	Flower	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
18	VITEXIN	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
18	VITEXIN	Inflorescence	--	--		
0	VITEXIN-2'-BETA-RHAMNOSIDE	Flower	--	--		
1	VITEXIN-2'-O-RHAMNOSIDE	Inflorescence	--	--		
1	VITEXIN-2'-O-RHAMNOSIDE	Leaf	--	--		
0	VITEXIN-2'-RHAMNOSIDE	Flower	--	--		
0	VITEXIN-2'-RHAMNOSIDE	Leaf	--	--		
0	VITEXIN-2'-RHAMNOSIDE	Plant	--	5000		
0	VITEXIN-4',7-DI-D-GLUCOSIDE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	VITEXIN-4',L-RHAMNO-D-GLUCOSIDE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	VITEXIN-4'-L-RHAMNOSIDE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	VITEXIN-8-C-ALPHA-L-RHAMNOSYL-ACETYL-L-BETA-D-GLUCOSIDE	Inflorescence	--	--		
0	VITEXIN-8-C-ALPHA-L-RHAMNOSYL-BETA-D-GLUCOSIDE	Inflorescence	--	--		
0	VITEXIN-RHAMNOSIDE	Leaf	--	--		
0	VITEXIN-RHAMNOSIDE	Inflorescence	--	--		