

P Hypericum perforatum

Common Name(s)

Common St. Johnswort, Goatweed, Hypericum, Klamath Weed, St. John's-wort

How Used

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Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
30	(+)-CATECHIN	Plant	--	--	
0	(+)-EPICATECHIN	Plant	--	--	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.
38	(-)-EPICATECHIN	Plant	--	--	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.
0	(E)-BETA-FARNESENE	Plant	0.5	9	-0.698672340478706

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	(E)-OCIMENE	Plant	0.1	2.25	
0	(Z)-OCIMENE	Plant	0.25	4.5	
0	1(3)-11(8)-BIAPIGENIN	Flower	--	--	
0	1(3)-11(8)-BIAPIGENIN	Shoot	--	72.5	
1	1,3,6,7-TETRAHYDROXYXANTHONE	Leaf	--	--	
1	1,3,6,7-TETRAHYDROXYXANTHONE	Plant	--	--	
0	2,2-DIMETHYL-7-ISOBUTYL-2H,5H-PYRANO-(4,3-B)-PYRAN-5-ONE	Plant	1.5	27	
0	2,2-DIMETHYL-7-SEC-BUTYL-2H,5H-PYRANO-(4,3-B)-PYRAN-5-ONE	Plant	1	18	
0	2-METHYL-BUTENOL	Plant	--	--	
0	2-METHYL-DECANE	Shoot	--	--	
0	2-METHYL-DECANE	Leaf Essent. Oil	--	--	
0	2-METHYL-DECANE	Fruit Essent. Oil	--	--	
0	2-METHYL-OCTANE	Fruit Essent. Oil	--	--	
0	2-METHYL-OCTANE	Shoot	--	--	
0	2-METHYL-OCTANE	Leaf Essent. Oil	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	5-METHYLHEPTAN-2,4-DIONE	Plant	0.25	4.5	
0	6-METHYL-HEPT-5-EN-2-ONE	Plant	1	18	
0	6-METHYLHEPTAN-2,4-DIONE	Plant	0.25	4.5	
6	ACETOPHENONE	Plant	0.1	2.25	-1
0	ACYLPHLOROGLUCINOLS	Plant	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ADHYPERFOLIN	Flower	--	--	
0	ADHYPERFOLIN	Fruit	--	--	
0	ADHYPERIFORIN	Plant	2000	19000	
0	ALKANES	Shoot	--	--	
0	ALKANOLS	Shoot	--	--	
0	ALPHA-AMORPHENE	Plant	0.25	4.5	-1
0	ALPHA-CAMPHOLENOL	Plant	0.05	0.9	
0	ALPHA-CUPRENENE	Plant	16	288	
0	ALPHA-EUDESOL	Plant	2.5	45	
2	ALPHA-HUMULENE	Plant	1	18	-0.6057643151172428
11	ALPHA-PHELLANDRENE	Plant	0.3	5.4	-1.1319046038135718

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
28	ALPHA-PINENE	Leaf Essent. Oil	--	--		
28	ALPHA-PINENE	Fruit Essent. Oil	--	--		
28	ALPHA-PINENE	Plant	13	245	-0.3080919122446896	
28	ALPHA-PINENE	Shoot Essent. Oil	--	--		
3	ALPHA-SELINENE	Plant	1	18	-0.5867176918752404	
13	ALPHA-TERPINENE	Plant	1	18	-0.4744627215339312	
23	ALPHA-TERPINEOL	Plant	3	54	-0.43865827127528684	
0	ALPHA-TERPINYL-ACETATE	Plant	0.1	1.8	-0.6913759776083797	
18	AMENTOFLAVONE	Flower	100	500		
18	AMENTOFLAVONE	Shoot	--	--		
3	AR-CURCUMENE	Plant	0.5	9	-0.5646161556334643	
112	ASCORBIC-ACID	Plant	1300	1300	-0.28849886718467166	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
112	ASCORBIC-ACID	Seed	395	395	-0.10131886672592849	Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
112	ASCORBIC-ACID	Leaf	--	--		
112	ASCORBIC-ACID	Shoot	--	16.5	-0.3703409857421204	
9	BETA-AMYRIN	Shoot	--	--		
0	BETA-BOURBONENE	Plant	0.25	4.5	-0.489936417763645	
53	BETA-CAROTENE	Shoot	--	12.1	-0.6694191722615046	
5	BETA-ELEMENE	Plant	0.25	4.5	-0.4590469964746937	
13	BETA-EUDES MOL	Plant	2	32	-1.4039137909830484	
13	BETA-PINENE	Plant	335	6055	6.102304293563025	
13	BETA-PINENE	Shoot	--	--		
13	BETA-PINENE	Leaf Essent. Oil	--	--		
13	BETA-PINENE	Fruit Essent. Oil	--	--		
3	BETA-SELINENE	Plant	1.5	27	-0.500067830640769	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
47	BETA-SITOSTEROL	Plant	--	--	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
47	BETA-SITOSTEROL	Shoot	--	--	
0	BIAPIGENIN	Leaf	--	--	
0	BICYCLOELEMENE	Plant	0.1	1.8	-1
35	BORNEOL	Plant	0.15	2.7	-0.6684962919153474
12	BORNYL-ACETATE	Plant	0.2	3.6	-0.46669902653977585
0	BRENZCATECHIN	Plant	--	--	
4	CADINENE	Essential Oil	--	--	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	CADMIUM	Plant	1	5	1.706360614699241
3	CADMIUM	Root	1	3	2.1673447651974533
3	CADMIUM	Leaf	1	7	1.8579388000852974
102	CAFFEIC-ACID	Shoot	--	1000	-0.30167703804388507
102	CAFFEIC-ACID	Plant	--	1000	-0.927639936569902
9	CAMPHENE	Plant	1	18	-0.5750339250011366

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	CAROTENE	Seed	165	165	0.9999999999999998	Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
0	CAROTENOIDS	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
31	CARYOPHYLLENE	Plant	26	468	0.04369118646892662	
31	CARYOPHYLLENE	Essential Oil	--	--		
6	CARYOPHYLLENE-EPOXIDE	Plant	0.5	9		
1	CATECHINS	Plant	--	--		
0	CERYL-ALCOHOL	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
77	CHLOROGENIC-ACID	Plant	--	--		
77	CHLOROGENIC-ACID	Leaf	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
21	CHLOROPHYLL	Plant	--	--	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
20	CHOLINE	Shoot	34	1000	0.572012868491687
20	CHOLINE	Leaf	--	--	
20	CHOLINE	Plant	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CINEOLE	Essential Oil	--	--	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
18	CINNAMIC-ACID	Plant	--	--	
0	CIS-TROLLIXANTHIN	Flower	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	CYANIDIN	Plant	--	--	
0	CYCLOPSEUDOHYPERICIN	Plant	--	--	
13	CYSTEINE	Plant	--	--	
9	DELTA-CADINENE	Plant	0.5	9	-0.5016588984240995

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
1	DODECANOL	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)
2	ELEMOL	Plant	0.25	4.5	-0.6106083925528936
0	EMODINANTHRANOL	Plant	--	--	Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
0	EO	Shoot	700	1250	-0.837336451901542
0	EO	Plant	500	3500	-0.05614454808389901
0	EO	Seed	3300	3300	-0.5087818988509869 Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
0	EO	Flower	--	2500	-0.3400918652927049
40	EPICATECHIN	Plant	--	--	
0	FAT	Seed	328000	328000	0.32980195334230034 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	FENCHOL	Plant	0.25	4.5		
61	FERULIC-ACID	Plant	--	--		
0	FLAVONOIDS	Shoot	70000	74000	1.9987386742212807	
0	FLAVONOIDS	Flower	117100	117100	1.7816328615787507	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
22	GABA	Plant	--	700		
62	GALLIC-ACID	Plant	--	--		
0	GAMMA-CURCUMENE	Plant	0.5	9		
0	GAMMA-EUDESOL	Plant	1.5	27	-1	
11	GAMMA-TERPINENE	Plant	1.5	27	-0.5229803987451376	
8	GENTISIC-ACID	Plant	--	--		
13	GERANIAL	Plant	0.35	6.3	-0.8448404627021195	
35	GERANIOL	Plant	4	72	-0.4372882513568854	
5	GERANYL-ACETATE	Plant	24	432	-0.046931008281076325	
5	GLUTAMINE	Plant	--	--		
3	GUAJOL	Plant	1.5	27	-1	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	GURJUNENE	Plant	--	--	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	HEXACOSAN-1-OL	Leaf	--	--	
2	HUMULENE	Essential Oil	--	--	
2	HUMULENE	Plant	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	HYPERESIN-1	Plant	--	--	
0	HYPERESIN-2	Plant	--	--	
7	HYPERFORIN	Fruit	--	--	
7	HYPERFORIN	Plant	20000	45000	
7	HYPERFORIN	Leaf	--	--	
7	HYPERFORIN	Flower	--	27930	
7	HYPERFORIN	Shoot	--	--	
26	HYPERICIN	Flower Essent. Oil	5	19	
26	HYPERICIN	Cotyledon	--	14.5	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
26	HYPERICIN	Essential Oil	--	2200	
26	HYPERICIN	Shoot	390	1780	
26	HYPERICIN	Fruit	--	730	
26	HYPERICIN	Plant	5000	7000	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
26	HYPERICIN	Leaf	190	1950	
26	HYPERICIN	Stem	40	210	
26	HYPERICIN	Flower	860	18000	
0	HYPERICINS	Plant	95	4660	
0	HYPERICODIHYDROANTHRONE	Plant	--	--	Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
0	HYPERIFOLIN	Plant	--	--	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
14	HYPERIN	Plant	3500	5500	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
30	HYPEROSIDE	Flower	--	6570	1.3767817207229411
30	HYPEROSIDE	Plant	3500	20000	1.4142135623730945
30	HYPEROSIDE	Shoot	5000	40000	1
30	HYPEROSIDE	Leaf	--	--	
30	HYPEROSIDE	Stem	--	--	
0	I3,I18-BIAPIGENIN	Plant	--	2600	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	I3,I18-BIAPIGENIN	Flower	100	500	
1	IMANIN	Plant	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	IMANIN	Shoot	--	--	
0	ISHWARANE	Plant	0.5	9	
4	ISOFERULIC-ACID	Plant	--	--	
0	ISOHYPERICIN	Plant	--	--	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
3	ISOQUERCETIN	Plant	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ISOQUERCITIN	Plant	--	--	
22	ISOQUERCITRIN	Flower	--	--	
22	ISOQUERCITRIN	Plant	--	3000 1	
0	ISOVALERIANIC-ACID	Plant	--	--	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	ISOVALERIC-ACID-ESTER	Plant	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
75	KAEMPFEROL	Plant	--	--	
0	KIELCORIN	Root	--	--	
0	KIELCORIN	Plant	--	--	
0	KILECORIN	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	LEAD	Root	4	5	0.5725881018723528
0	LEAD	Leaf	6	18	-0.2544918195433336
0	LEAD	Plant	2	12	-0.2052748805139635
2	LEUCINE	Plant	--	--	
1	LEUCOCYANIDIN	Plant	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
60	LIMONENE	Plant	5	90	-0.43049106807161513
60	LIMONENE	Shoot	--	--	
60	LIMONENE	Leaf Essent. Oil	--	--	
60	LIMONENE	Fruit Essent. Oil	--	--	
53	LINALOOL	Plant	2.5	45	-0.6582300842221918
15	LUTEIN	Flower	--	--	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
78	LUTEOLIN	Plant	--	--		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	LUTEOXANTHIN	Flower	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	LYSINE	Plant	--	--		
18	MANGIFERIN	Plant	--	--		
18	MANGIFERIN	Shoot	--	--		
0	MANGIFERIN(SIC)	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
18	MANNITOL	Plant	11000	20000	1	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	METHYL-2-DECANE	Plant	--	--	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	METHYL-2-OCTANE	Essential Oil	--	164000	
0	METHYL-3-BUT-3-EN-2-OL	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	METHYL-GERANATE	Plant	0.3	5.4	
22	MYRCENE	Shoot	--	--	
22	MYRCENE	Leaf Essent. Oil	--	--	
22	MYRCENE	Plant	10	190	-0.26735798519548487
22	MYRCENE	Fruit Essent. Oil	--	--	
22	MYRCENE	Essential Oil	--	--	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
34	MYRICETIN	Plant	--	--	
0	MYRICETIN-3-O-BETA-D-GLUCOSIDE	Plant	--	--	
6	MYRISTIC-ACID	Plant	--	--	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
1	N-DECANAL	Essential Oil	--	--	
0	N-NONANE	Essential Oil	--	--	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.
0	N-NONANE	Shoot	--	--	
0	N-NONANE	Leaf Essent. Oil	--	--	
0	N-NONANE	Fruit Essent. Oil	--	--	
2	N-OCTANAL	Essential Oil	--	--	

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	N-OCTANOL	Essential Oil	--	--	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.
0	N-UNDECANE	Leaf Essent. Oil	--	--	
0	N-UNDECANE	Fruit Essent. Oil	--	--	
0	N-UNDECANE	Shoot	--	--	
0	NEO-ALLOOCIMENE	Plant	0.3	5.4	
4	NERAL	Plant	0.35	6.3	-0.7605971244477834
10	NEROL	Plant	1	18	-0.4305189847416696
5	NERYL-ACETATE	Plant	1	18	-0.5533167201767719
11	NICOTINIC-ACID	Leaf	0.007	1200	0.8574828309219877
2	NONACOSANE	Plant	--	--	
0	NONANE	Plant	23	414	1.7320463017310814
0	NOR-CYCLOPSEUDOHYPERICIN	Plant	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	NOVOIMANIN	Plant	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	NOVOIMANIN	Shoot	30000	40000	
0	OCT-1-ENE	Plant	1.5	17	
0	OCTACOSAN-1-OL	Leaf	--	--	
25	OPCS	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)
5	ORNITHINE	Plant	--	--	
25	P-COUMARIC-ACID	Plant	--	--	
16	P-CYMENE	Plant	0.5	9	-0.4179122586089107
13	P-HYDROXY-BENZOIC-ACID	Plant	--	--	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
13	PALMITIC-ACID	Plant	--	--	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
24	PECTIN	Plant	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PERFLAVIT	Shoot	--	--	
26	PHENOL	Plant	--	--	
0	PHLOBAPHENE	Plant	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
8	PHLOROGLUCINOL	Plant	--	--	
8	PHLOROGLUCINOL	Shoot	--	--	
2	PHYTOSTEROLS	Plant	--	--	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
12	PINENE	Essential Oil	--	--	
0	PINOL	Plant	0.05	0.9	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
34	PROANTHOCYANIDINS	Plant	--	120000	
27	PROCYANIDINS	Plant	--	--	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	PROLINE	Plant	--	--	
0	PROTEIN	Seed	181000	207000	-0.23836489772194505 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	PROTOHYPERICIN	Plant	--	--	
0	PROTOPSEUDOHYPERICIN	Plant	--	--	
0	PROVITAMIN-A	Plant	130	130	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	PSEUDOHYPERICIN	Cotyledon	--	164.9	
2	PSEUDOHYPERICIN	Plant	--	--	
2	PSEUDOHYPERICIN	Leaf	--	--	
2	PSEUDOHYPERICIN	Flower	2260	5800	
2	PSEUDOHYPERICIN	Shoot	--	40	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	PSEUDOHYPERICODIHYDROANTHRONE	Plant	--	--	Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
23	PYROGALLOL	Plant	--	--	
176	QUERCETIN	Shoot	--	--	
176	QUERCETIN	Leaf	--	--	
176	QUERCETIN	Plant	--	20000	1
176	QUERCETIN	Stem	--	--	
176	QUERCETIN	Flower	--	1000	0.9439875157035426
0	QUERCETIN-3-O-GLUCURONIDE	Shoot	--	--	
0	QUERCETIN-3-O-GLUCURONIDE	Plant	--	--	
0	QUERCETIN-3-O-XYLOSIDE	Plant	--	--	
0	QUERCETIN-3-O-XYLOSIDE	Shoot	--	--	
44	QUERCITRIN	Flower	--	3380	
44	QUERCITRIN	Leaf	--	--	
44	QUERCITRIN	Plant	--	--	
44	QUERCITRIN	Shoot	3000	5240	-1
0	RESORCYNOL	Plant	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	RHODAN	Plant	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
87	RUTIN	Leaf	2000	3000	-0.8182983793201679
87	RUTIN	Flower	1000	2800	-0.7206034752837803
87	RUTIN	Shoot	--	10000	0.17325822920583467
87	RUTIN	Stem	--	--	
87	RUTIN	Plant	--	16000	-0.4415440806455522
0	SAPONIN	Seed	--	--	Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
44	SCOPOLETIN	Plant	--	--	
0	SELINA-4,11-DIENE	Plant	0.15	2.7	-1
0	SITOSTEROL	Plant	--	--	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
8	STEARIC-ACID	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	TANNINS	Seed	121000	121000	1.4090882261939848	Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
0	TANNINS	Stem	--	38000		
0	TANNINS	Shoot	--	3300	-1	
0	TANNINS	Flower	--	162000	-1.414213562373095	
0	TANNINS	Leaf	--	124000	0.3789365602623973	
0	TANNINS	Plant	30000	160000	0.6335167585895222	
2	TARAXASTEROL	Shoot	--	--		
23	TERPINEN-4-OL	Plant	0.5	9	-0.2775675416087286	
0	TERPINEOLENE	Plant	1.5	27	1	
0	TETRACOSAN-1-OL	Leaf	--	--		
4	THREONINE	Plant	--	--		
1	TRIACONTAN-1-OL	Leaf	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	TROLLICHROME	Flower	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
22	UMBELLIFERONE	Plant	--	--	
0	UNDECANE	Plant	0.25	4.5	1.6819265754924004
24	VANILLIC-ACID	Plant	--	--	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
2	VIOLAXANTHIN	Flower	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	XANTHONES	Plant	--	12.8	