

P Valeriana officinalis

Common Name(s)

Common Valerian, Garden-Heliotrope, Valerian

How Used

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Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	(+)-ACTINIDINE	Root	--	--	
0	(+)-BETA-BISABOLENE	Root Essent. Oil	--	--	
0	(+)-EREMOPHILENE	Root Essent. Oil	--	--	
0	(+)-GAMMA-CADINENE	Root Essent. Oil	--	--	
0	(+)-MAALIOXIDE	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	(-)-ACTINIDINE	Root	--	--	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	(-)-ALLOAROMADENDRENE	Root Essent. Oil	--	--	
0	(-)-ALPHA-FENCHENE	Root Essent. Oil	--	--	
0	(-)-ALPHA-PINENE	Root Essent. Oil	--	--	
0	(-)-AR-CURCUMENE	Root Essent. Oil	--	--	
0	(-)-BETA-ELEMENE	Root Essent. Oil	--	--	
0	(-)-BETA-PHELLANDRENE	Root Essent. Oil	--	--	
0	(-)-BETA-PINENE	Root Essent. Oil	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
3	(-)-BORNEOL	Root Essent. Oil	--	--	
3	(-)-BORNEOL	Root	--	--	
0	(-)-BORNEOL-ACETATE	Root	--	--	
0	(-)-BORNEOL-ISOVALERATE	Root	--	--	
0	(-)-BORNEOL-ISOVALERATE	Root Essent. Oil	--	--	
0	(-)-CAMPHENE	Root Essent. Oil	--	--	
0	(-)-CARYOPHYLLENE	Root Essent. Oil	--	--	
0	(-)-LIMONENE	Root Essent. Oil	--	--	
0	(-)-MYRTENOL	Leaf Essent. Oil	1200	2400	
0	(-)-MYRTENOL	Root	--	--	
0	(-)-MYRTENOL	Leaf	3	60	Father Nature's Pharmacy: The aggregate of all these three-letter citations.
0	(-)-MYRTENOL-ISOVALERATE	Root	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	(-)-PACIFIGORGIOL	Essential Oil	7000	86000		
0	(S)-(-)-ACTINIDINE	Root	--	--		
0	1,8-CINEOL	Leaf Essent. Oil	37700	65100	-0.4818256731898833	
67	1,8-CINEOLE	Leaf	85	1660	-0.31670589111205333	
0	1-ALPHA-ACEVALTRATE	Root	--	--		
0	2-ACETYL-PYRROLE	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	7-BETA-ACEVALTRATE	Root	--	--		
0	7-EPIDEACETYLIISOVALTRATE	Plant	--	--		
0	7-EPIDEACETYLIISOVALTRATE	Root	--	--		
0	8-EPIKESSANOL	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
16	ACETIC-ACID	Root	--	--		
0	ACETOXY-VALEPOTRIATUM	Plant	--	--		
0	ACETOXYVALERENIC-ACID	Root	--	--		
0	ACETOXYVALERENOIC-ACID	Root	10	1680		
0	ACETOXYVALTRATE	Rhizome	--	--		
0	ACETOXYVALTRATE	Root	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
1	ACEVALTRATE	Root	--	120	
1	ACEVALTRATE	Tissue Culture	100	120	
1	ACEVALTRATE	Plant	--	--	
4	ACTINIDINE	Root	--	0.5	
4	ACTINIDINE	Rhizome	--	1.8	
3	ALANINE	Root	--	--	
3	ALANINE	Rhizome	--	--	
0	ALKALOIDS	Root	500	2000	-0.8237252063158436
0	ALLO-AROMADENDRENE	Root	--	195	Father Nature's Farmacy: The aggregate of all these three-letter citations.
0	ALLO-AROMADENDRENE	Leaf Essent. Oil	--	9700	-0.42565395460505273
0	ALLO-AROMADENDRENE	Root Essent. Oil	--	--	
3	ALPHA-CURCUMENE	Plant	--	--	
3	ALPHA-CURCUMENE	Root	--	--	
0	ALPHA-ELAEOSTEARIC-ACID	Seed Oil	--	446000	
0	ALPHA-FENCHENE	Root	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	ALPHA-KERZYLALCOHOL	Root	--	--		
0	ALPHA-KESSYL-ALCOHOL	Plant	--	--		
0	ALPHA-KESSYL-ALCOHOL	Root	--	--		
0	ALPHA-METHYL-2-PYRROLYL-KETONE	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ALPHA-METHYL-KETONE-PYRROLE	Root	--	--		
28	ALPHA-PINENE	Leaf Essent. Oil	1000	239100	0.5622004446693538	
28	ALPHA-PINENE	Essential Oil	--	--		
28	ALPHA-PINENE	Rhizome Essent. Oil	--	--		
28	ALPHA-PINENE	Root Essent. Oil	--	25000	-0.9573580453647603	
28	ALPHA-PINENE	Leaf	2	6095	0.17117059389793504	Father Nature's Farmacy: The aggregate of all these three-letter citations.
28	ALPHA-PINENE	Root	1	500	-0.5389356389673264	Father Nature's Farmacy: The aggregate of all these three-letter citations.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
13	ALPHA-TERPINENE	Leaf Essent. Oil	--	600	-0.698535055754104	
13	ALPHA-TERPINENE	Leaf	--	15	-0.30461131542122966	Father Nature's Farmacy: The aggregate of all these three-letter citations.
23	ALPHA-TERPINEOL	Root Essent. Oil	--	--		
23	ALPHA-TERPINEOL	Leaf Essent. Oil	9500	75400	0.6587837647764052	
23	ALPHA-TERPINEOL	Leaf	22	1925	2.7888857564875424	Father Nature's Farmacy: The aggregate of all these three-letter citations.
23	ALPHA-TERPINEOL	Root	95	2365	1.9966237635178776	Father Nature's Farmacy: The aggregate of all these three-letter citations.
32	ALPHA-TOCOPHEROL	Flower	--	221	1	
0	ALPHA-VALENE	Root	--	--		
5	ALUMINUM	Root	50	422	-0.0860532203055952	
0	ANHYDROVALENOL-ISOVALERATE	Rhizome	--	--		
3	AR-CURCUMENE	Root	--	--		
14	ARGININE	Rhizome	--	--		
112	ASCORBIC-ACID	Root	--	--	-0.6459735820044326	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	ASH	Root	16874	143000	2.1542605445719727	
2	ASPARAGINE	Rhizome	--	--		
3	ASPARTIC-ACID	Rhizome	--	--		
10	AZULENE	Root	--	--		
0	BALDRIANIC-ACID	Root	--	--		
0	BALDRIATANNIC-ACID	Root	--	--		
3	BALDRINAL	Root	--	--		
6	BETA-BISABOLENE	Root	2	165	1.2460935416054946	
6	BETA-BISABOLENE	Leaf Essent. Oil	6200	9000	-0.21732019637969832	
53	BETA-CAROTENE	Plant	--	--		
53	BETA-CAROTENE	Root	--	--		
0	BETA-CARYOPHYLLENE	Root Essent. Oil	--	--		
0	BETA-CARYOPHYLLENE	Leaf Essent. Oil	2500	13600	-0.32499336547223034	
0	BETA-CARYOPHYLLENE	Leaf	6	345	-0.16591106399250605	Father Nature's Farmacy: The aggregate of all these three-letter citations.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	BETA-CUBEBENE	Leaf Essent. Oil	6500	13100	1.3377190100358967	
0	BETA-CUBEBENE	Leaf	15	335	0.671116986901806	Father Nature's Farmacy: The aggregate of all these three-letter citations.
5	BETA-ELEMENE	Root	--	--		
13	BETA-IONONE	Root	--	--		
13	BETA-IONONE	Leaf Essent. Oil	1800	3000	-1	
13	BETA-IONONE	Leaf	4	75	1.7125460902896001	Father Nature's Farmacy: The aggregate of all these three-letter citations.
0	BETA-METHYL-GLUCOSIDE	Leaf	--	--		
0	BETA-METHYL-VALERIC-ACID	Root Essent. Oil	--	--		
2	BETA-MYRCENE	Leaf Essent. Oil	900	8200	1	
2	BETA-MYRCENE	Leaf	2	210	-0.32305897742328993	Father Nature's Farmacy: The aggregate of all these three-letter citations.
3	BETA-PHELLANDRENE	Root	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
3	BETA-PHELLANDRENE	Leaf Essent. Oil	--	1400	-0.8017042912228218	
3	BETA-PHELLANDRENE	Leaf	--	35	-0.3807332732105446	Father Nature's Farmacy: The aggregate of all these three-letter citations.
13	BETA-PINENE	Root	50	960	0.40905564902771346	
13	BETA-PINENE	Leaf Essent. Oil	5400	43000	1.0456103749959569	
13	BETA-PINENE	Root Essent. Oil	--	48000	-0.542129322911591	
13	BETA-PINENE	Leaf	12	1100	1.193361081814098	Father Nature's Farmacy: The aggregate of all these three-letter citations.
47	BETA-SITOSTEROL	Root	--	--		
47	BETA-SITOSTEROL	Rhizome	--	--		
47	BETA-SITOSTEROL	Plant	--	--		Lokar, L. C., Martini, F. 1997. Chemotaxonomic Investigations on the Genus Valeriana L. in the Northeastern Italy and in Tuscany. I. Phytosterols. Dept. of Biology, University of Trieste. Allionia 35: 103-115.
0	BETA-SITOSTEROL-STEARATE	Root	--	--		
0	BETA-VALENE	Root	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	BETA-VALENE	Rhizome	--	--		
0	BISABOLOL	Root	--	--		
35	BORNEOL	Root	5	460		
35	BORNEOL	Essential Oil	--	--		
35	BORNEOL	Leaf Essent. Oil	18200	153000	1.4070251447294047	
35	BORNEOL	Root Essent. Oil	--	--		
35	BORNEOL	Leaf	5	3900	4.352068614545992	Father Nature's Farmacy: The aggregate of all these three-letter citations.
0	BORNEOL-ACETATE	Rhizome Essent. Oil	--	--		
0	BORNEOL-ACETATE	Root Essent. Oil	--	315000	1.4142135623730943	
0	BORNEOL-ACETATE	Essential Oil	--	--		
0	BORNEOL-ACETATE	Rhizome	--	--		
0	BORNEOL-ACETATE	Leaf Essent. Oil	4000	335900	2.416530768198088	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	BORNEOL-FORMATE	Root Essent. Oil	--	--		
0	BORNEOL-ISOVALERATE	Rhizome Essent. Oil	--	--		
0	BORNEOL-ISOVALERATE	Essential Oil	--	--		
0	BORNEOL-ISOVALERIANATE	Root Essent. Oil	--	15000		
12	BORNYL-ACETATE	Root	65	6300	1.731951097266349	
12	BORNYL-ACETATE	Leaf	9	8565	4.276392512629336	
0	BORNYL-BUTYRATE	Root	--	--		
1	BORNYL-FORMATE	Root	--	--		
0	BORNYL-ISOVALERATE	Root	250	9780	1	
0	BORNYL-ISOVALERIANATE	Root	15	300		Father Nature's Farmacy: The aggregate of all these three-letter citations.
102	CAFFEIC-ACID	Plant	--	--		
102	CAFFEIC-ACID	Root	--	5800	1.5698864543151345	
28	CALCIUM	Root	4956	42000	3.7890171974850206	

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
2	CAMPESTEROL	Plant	--	--		Lokar, L. C., Martini, F. 1997. Chemotaxonomic Investigations on the Genus Valeriana L. in the Northeastern Italy and in Tuscany. I. Phytosterols. Dept. of Biology, University of Trieste. Allionia 35: 103-115.
9	CAMPHENE	Root	3	65	-0.7900657071763403	
9	CAMPHENE	Essential Oil	--	--		
9	CAMPHENE	Rhizome	--	--		
9	CAMPHENE	Essent. Oil	--	--		
9	CAMPHENE	Root	--	--		
9	CAMPHENE	Essent. Oil	--	--		
9	CAMPHENE	Leaf	--	5000	-0.6992473325340675	
9	CAMPHENE	Essent. Oil	--	--		
9	CAMPHENE	Leaf	--	130	-0.14355459328033415	Father Nature's Farmacy: The aggregate of all these three-letter citations.
0	CAPRONIC-ACID	Plant	--	204000		
0	CARBOHYDRATES	Root	88500	750000	-1.02724083866397	
37	CARVACROL	Root	10	195		
19	CARVONE	Root	80	1640	1.4122006603747708	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	CARVYL-ACETATE	Root	--	--		
31	CARYOPHYLLENE	Root	29	1520	1.7213037548491001	Father Nature's Farmacy: The aggregate of all these three-letter citations.
31	CARYOPHYLLENE	Essential Oil	--	--		
31	CARYOPHYLLENE	Rhizome Essent. Oil	--	--		
31	CARYOPHYLLENE	Leaf Essent. Oil	--	51000	-0.5095909536194779	
31	CARYOPHYLLENE	Root Essent. Oil	--	76000	1	
31	CARYOPHYLLENE	Leaf	115	1300	0.05756656381480434	Father Nature's Farmacy: The aggregate of all these three-letter citations.
1	CATALASE	Plant	--	--		
1	CATALASE	Root	--	--		
0	CHATINENE	Root	--	--		
0	CHATININE	Root	--	--		
0	CHATININE	Leaf	--	--		
77	CHLOROGENIC-ACID	Root	--	7300	0.9018283707528216	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	CHOLESTERIL-N-VALERATE	Plant	--	--		Lokar, L. C., Martini, F. 1997. Chemotaxonomic Investigations on the Genus Valeriana L. in the Northeastern Italy and in Tuscany. I. Phytosterols. Dept. of Biology, University of Trieste. Allionia 35: 103-115.
1	CHOLESTEROL	Plant	--	--		Lokar, L. C., Martini, F. 1997. Chemotaxonomic Investigations on the Genus Valeriana L. in the Northeastern Italy and in Tuscany. I. Phytosterols. Dept. of Biology, University of Trieste. Allionia 35: 103-115.
20	CHOLINE	Root	3540	30000	3.1398996373571895	
20	CHOLINE	Leaf	52000	58000	3.080709728318331	
20	CHOLINE	Stem	--	30000		
24	CHROMIUM	Root	0.2	1.8	-0.20117706529794718	
0	CIS-VALERENOL-ACETATE	Root	--	--		
0	CIS-VALERENOL-ISOVALERATE	Root	--	--		
0	CITRONELLOL-ISOVALERATE	Leaf Essent. Oil	15900	18000		
0	CITRONELLOL-ISOVALERATE	Leaf	36	460		Father Nature's Farmacy: The aggregate of all these three-letter citations.
2	COBALT	Root	0.6	4.8	-0.4410243796700459	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	CRYPTOFAURONOL	Root	--	--	
7	CYCLOARTENOL	Plant	--	--	Lokar, L. C., Martini, F. 1997. Chemotaxonomic Investigations on the Genus Valeriana L. in the Northeastern Italy and in Tuscany. I. Phytosterols. Dept. of Biology, University of Trieste. Allionia 35: 103-115.
19	D-LIMONENE	Leaf Essent. Oil	--	55000 -1	
19	D-LIMONENE	Leaf	125	1400	
0	DEACETYLSOLAVTRATE	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.
0	DELTA-BISABOLENE	Root	8	150	Father Nature's Farmacy: The aggregate of all these three-letter citations.
9	DELTA-CADINENE	Root	--	--	
0	DELTA-VALENE	Rhizome	--	--	
0	DEOXYDODIDROVALTRATE	Root	--	--	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	DIDROVALTRATE	Root	50	1000		
0	DIDROVALTRATE	Tissue Culture	--	40		
1	DIHYDROCARVYL-ACETATE	Root	--	--		
0	DIHYDROVALEPOTRIATUM	Plant	--	--		
5	DIHYDROVALTRATE	Root	--	--		
2	ELEMOL	Root Essent. Oil	--	--		
2	ELEMOL	Essential Oil	--	--		
2	ELEMOL	Leaf Essent. Oil	--	1400	-1	
2	ELEMOL	Leaf	3	36	-1.0467417211593815	Father Nature's Farmacy: The aggregate of all these three-letter citations.
2	ELEMOL	Root	--	--		
0	EO	Root	590	20000	0.2872600243161038	
0	EO	Root Essent. Oil	--	5000		
0	EO	Leaf	2300	28000	1.4482555378393345	
0	EREMOPHILENE	Plant	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	EREMOPHILENE	Root	--	--	
0	ERGNOPHYLINE	Root	--	--	
0	EUDESMOL	Root	--	--	
0	EUGENOL-ISOVALERATE	Root Essent. Oil	--	--	
0	EUGENOL-ISOVALERATE	Leaf Essent. Oil	--	--	
0	EUGENOL-VALERATE	Root Essent. Oil	--	--	
6	EUGENYL-ACETATE	Root	--	--	
0	EUGENYL-ISOVALERATE	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.
0	FAT	Root	2714	23000	0.004007840419506115
0	FAURINOL	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.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	FAURINONE	Root	105	2080		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.
15	FIBER	Root	79000	79000	-0.20236031507008168	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	FIBER(CRUDE)	Root	--	79000	-0.9546329903137257	
0	FIBER(DIETARY)	Root	--	423000	0.2683457549147254	
13	FORMIC-ACID	Root	--	--		
8	FRUCTOSE	Root	9000	9000	-0.4564787045656782	
22	GABA	Root	--	--		
22	GAMMA-AMINOBUTYRIC-ACID	Root	--	--		
22	GAMMA-AMINOBUTYRIC-ACID	Rhizome	--	--		
0	GAMMA-CADINENE	Root	--	--		
20	GAMMA-LINOLENIC-ACID	Plant	--	62000		
11	GAMMA-TERPINENE	Root	--	--		
11	GAMMA-TERPINENE	Root Essent. Oil	--	--		
0	GAMMA-VALENE	Root	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	GAMMA-VALENE	Rhizome	--	--		
35	GERANIOL	Root	1	120	-1	Father Nature's Farmacy: The aggregate of all these three-letter citations.
7	GLUCOSE	Root	15000	15000	-0.18931013947995629	
8	GLUTAMIC-ACID	Root	--	--		
5	GLUTAMINE	Root	--	--		
5	GLUTAMINE	Rhizome	--	--		
6	GUAIAZULENE	Root Essent. Oil	--	--		
3	GUAIOL	Root	--	--		
0	GUM	Root	14160	120000	0.562939968780601	
0	HOMOACEVALTRATE	Root	--	300		
1	HOMOBALDRINAL	Root	--	--		
0	HOMODEOXYDODIDROVALTRATE	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	HOMODIDROVALTRATE	Root	--	--		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	HOMODIVALTRATE	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.
0	HOMOVALTRATE	Root	--	--		
0	HYDROXYVALERINIC-ACID	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.
6	IRON	Root	6	48	-0.3719192616723782	
7	ISOBORNEOL	Root Essent. Oil	--	--		
7	ISOBORNEOL	Leaf Essent. Oil	18200	153000	1	
7	ISOBORNEOL	Root	--	--		Medline (post 1990 searches filed in my computer)
7	ISOBORNEOL	Leaf	42	3900	1.727525839430272	Father Nature's Farmacy: The aggregate of all these three-letter citations.

Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ISOBORNEOL-ACETATE	Root Essent. Oil	--	--	
0	ISOBORNEOL-ACETATE	Leaf Essent. Oil	2600	8400	
0	ISOBORNEOL-ISOVALERATE	Root Essent. Oil	--	--	
0	ISOBORNEOL-ISOVALERATE	Leaf Essent. Oil	112500	478000	
2	ISOBORNYL-ACETATE	Root	55	3030	
0	ISOBORNYL-ISOVALERATE	Leaf	260	12190	Father Nature's Farmacy: The aggregate of all these three-letter citations.
0	ISOBORNYL-ISOVALERATE	Root	--	--	Medline (post 1990 searches filed in my computer)
0	ISOEUGENOL-ISOVALERATE	Root Essent. Oil	--	--	
0	ISOEUGENOL-VALERATE	Root Essent. Oil	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	ISOEUGENYL-ISOVALERATE	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.
3	ISOLEUCINE	Rhizome	--	--	
0	ISOVALERAMIDE	Root	--	--	
0	ISOVALERIANIC-ACID	Root	--	200000	
0	ISOVALERIANIC-ACID	Leaf Essent. Oil	--	8400	
0	ISOVALERIANIC-ACID	Leaf	--	215	Father Nature's Farmacy: The aggregate of all these three-letter citations.
5	ISOVALERIC-ACID	Root	--	--	
5	ISOVALERIC-ACID	Root Essent. Oil	--	--	
0	ISOVALEROXY-DIHYDROVALTRATE	Rhizome	--	--	
0	ISOVALEROXY-HYDROXY-DIDROVALTRATE	Root	25	1000	
0	ISOVALEROXY-HYDROXY-DIHYDROVALTRATE	Root	--	--	
0	ISOVALTRATE	Root	500	6300	
0	ISOVALTRATE	Rhizome	--	5280	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	ISOVALTRATES	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
75	KAEMPFEROL	Plant	--	--	
0	KANOKOSIDES	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	KESSANE	Plant	--	--	
0	KESSANE	Root	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	KESSANE	Root Essent. Oil	--	--	
0	KESSENE	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	KESSYL-2-OL	Root	--	--	
0	KESSYL-2-OL-ACETATE	Root	--	--	
0	KESSYL-6-OL	Root	--	--	
0	KESSYL-6-OL-ACETATE	Root	--	--	
0	KESSYL-GLYCOL	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	KESSYL-GLYCOL-DIACETATE	Root	--	--	
0	KONGOL	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	LEDOL	Root	--	--	
2	LEUCINE	Rhizome	--	--	
60	LIMONENE	Root	--	--	
60	LIMONENE	Root Essent. Oil	--	--	
60	LIMONENE	Leaf Essent. Oil	2300	25500	-0.5655050351348929
27	LINOLEIC-ACID	Plant	--	165000	1.9964479270741882
0	LIPASE	Root	--	--	
78	LUTEOLIN	Root	--	--	
0	MAALI-ALCOHOL	Rhizome	--	--	
0	MAALIOL	Root	--	--	
65	MAGNESIUM	Root	375	3180	0.3290823349317941
15	MALIC-ACID	Root	--	--	
14	MANGANESE	Root	0.7	5.6	-0.4790041559713029
22	MYRCENE	Plant	--	--	
22	MYRCENE	Root Essent. Oil	--	--	
22	MYRCENE	Root	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	MYRTEN-1-OL	Rhizome	--	--	
0	MYRTEN-1-OL-ISOVALERATE	Rhizome	--	--	
2	MYRTENOL	Plant	--	--	
2	MYRTENOL	Root	3	85	Father Nature's Farmacy: The aggregate of all these three-letter citations.
1	MYRTENYL-ACETATE	Root	--	--	
0	MYRTENYL-ISOVALERATE	Rhizome	--	--	
0	MYRTENYL-ISOVALERIANATE	Root	--	--	
0	N-(2-(4-HYDROXY-PHENYL)-ETHYL)-10-HYDROXY-ACTINIDINIUM	Root	--	10	
0	N-(2-(4-HYDROXY-PHENYL)-ETHYL)-ACTINIDINIUM	Root	--	300	
0	N-(BETA-(P-HYDROXYPHENYL)-ETHYL)-ACTINIDINE	Plant	--	--	
1	N-(P-HYDROXYPHENETHYL)-ACTINIDINE	Root	--	--	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
1	N-BUTYL-VALERATE	Leaf Essent. Oil	4	24600	
1	N-VALERALDEHYDE	Leaf Essent. Oil	2200	12300	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
1	N-VALERALDEHYDE	Leaf	5	315		Father Nature's Farmacy: The aggregate of all these three-letter citations.
39	NIACIN	Root	6	52	0.051041041724226174	
18	OLEIC-ACID	Plant	--	3000	-0.3289098475993685	
0	OXYDASE	Plant	--	--		
0	OXYDASE	Root	--	--		
25	P-COUMARIC-ACID	Plant	--	--		
16	P-CYMENE	Root Essent. Oil	--	--		
16	P-CYMENE	Root	--	--		
0	P-CYMOL	Root	--	--		
0	PACIFIGORGIOL	Leaf	16	2195		Father Nature's Farmacy: The aggregate of all these three-letter citations.
13	PALMITIC-ACID	Plant	--	--		
13	PALMITIC-ACID	Root	--	83000	3.577003804191027	
0	PATCHOLYL-ALCOHOL	Root	--	--		
0	PATCHOULYL-ALCOHOL	Root	--	--		
0	PENTYL-VALERATE	Leaf Essent. Oil	1800	22200		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	PENTYL-VALERATE	Leaf	4	565		Father Nature's Farmacy: The aggregate of all these three-letter citations.
0	PEROXIDASE	Plant	--	--		
0	PEROXIDASE	Root	--	--		
7	PHENYLALANINE	Rhizome	--	--		
4	PHOSPHORUS	Root	39	330	-0.560116109548552	
14	POTASSIUM	Root	1215	10300	-0.4011752971664641	
0	PROTEIN	Root	10148	86000	-0.3639841360982529	
176	QUERCETIN	Plant	--	--		
1	RAFFINOSE	Root	30000	30000	-0.5987994606248946	
0	RESIN	Root	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Healthcare Professionals. The Pharmaceutical Press, London. 296pp.
15	RIBOFLAVIN	Root	0.1	1.2	-0.6290718793872899	
5	SABINENE	Leaf Essent. Oil	1200	13600	-0.41148866867411177	
5	SABINENE	Leaf	3	345	-0.041395703025686854	Father Nature's Farmacy: The aggregate of all these three-letter citations.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	SACCHAROSE	Plant	50000	50000	
60	SELENIUM	Root	0.5	4.4	-0.04945181208643408
1	SERINE	Rhizome	--	--	
4	SILICON	Root	0.1	0.9	-0.3387704380211594
0	SKYANTHINE	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.
1	SODIUM	Root	27	230	-0.40568103697114866
10	SQUALENE	Plant	--	--	Lokar, L. C., Martini, F. 1997. Chemotaxonomic Investigations on the Genus Valeriana L. in the Northeastern Italy and in Tuscany. I. Phytosterols. Dept. of Biology, University of Trieste. Allionia 35: 103-115.
8	STEARIC-ACID	Root	--	--	
0	STIGMASTANOL	Plant	--	--	Lokar, L. C., Martini, F. 1997. Chemotaxonomic Investigations on the Genus Valeriana L. in the Northeastern Italy and in Tuscany. I. Phytosterols. Dept. of Biology, University of Trieste. Allionia 35: 103-115.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
12	STIGMASTEROL	Plant	--	--	Lokar, L. C., Martini, F. 1997. Chemotaxonomic Investigations on the Genus Valeriana L. in the Northeastern Italy and in Tuscany. I. Phytosterols. Dept. of Biology, University of Trieste. Allionia 35: 103-115.
0	STIGMASTEROL-ACETATE	Plant	--	--	Lokar, L. C., Martini, F. 1997. Chemotaxonomic Investigations on the Genus Valeriana L. in the Northeastern Italy and in Tuscany. I. Phytosterols. Dept. of Biology, University of Trieste. Allionia 35: 103-115.
0	TANNINS	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
9	TERPINOLENE	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
9	TERPINOLENE	Root Essent. Oil	--	--	
9	TERPINOLENE	Leaf Essent. Oil	3100	9200	0.09987956540879277

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
9	TERPINOLENE	Leaf	7	235	0.06726575623522042	Father Nature's Farmacy: The aggregate of all these three-letter citations.
31	THIAMIN	Root	1.6	1.6	-0.45141259736321837	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	THIAMINE	Root	0.2	1.6	-0.5431066510912689	
71	THYMOL	Root	3	860		
4	TIN	Root	3.3	28	1.1703735322377322	
0	TRANS-VALERENOL	Root	--	--		
0	TRANS-VALERENOL-ACETATE	Root	--	--		
0	TRANS-VALERENOL-ISOVALERATE	Root	--	--		
0	TRIDECA-12-ENE-2-4-6-8-10-PENTAYNE	Root	--	--		
0	TRIDECEN-(1)-PENTAIN(3,5,7,9,11)	Root	--	--		
8	TYROSINE	Root	--	--		
0	VALDIATE	Root	--	--		
0	VALECHLORIN	Plant	--	--		
0	VALECHLORINE	Root	--	--		
0	VALENOL	Root	--	--		
0	VALENOL	Rhizome	--	--		
0	VALENOL-ISOVALERATE	Rhizome	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
6	VALEPOTRIATES	Root	1000	23600	-1
6	VALEPOTRIATES	Rhizome	--	--	
6	VALEPOTRIATES	Tissue Culture	--	103000	Medline (post 1990 searches filed in my computer)
0	VALEPOTRIATUM	Plant	--	--	
0	VALERANAL	Leaf Essent. Oil	56000	101500	
0	VALERANAL	Leaf	130	2590	Father Nature's Farmacy: The aggregate of all these three-letter citations.
0	VALERANINE	Root	--	--	
0	VALERANONE	Root Essent. Oil	--	--	
0	VALERANONE	Rhizome	--	--	
0	VALERANONE	Root	555	11120	
0	VALERANONE	Leaf Essent. Oil	30400	67500	
0	VALERANONE	Essential Oil	--	--	
0	VALERANONE	Leaf	70	1720	Father Nature's Farmacy: The aggregate of all these three-letter citations.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	VALERENAL	Plant	--	--	
0	VALERENAL	Root	30	4000	
0	VALERENAL	Root Essent. Oil	--	--	
0	VALERENAL	Essential Oil	--	--	
4	VALERENIC-ACID	Root	--	--	
4	VALERENIC-ACID	Root Essent. Oil	--	--	
0	VALERENOL	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	VALERENOL-HEXANDRATE	Root	--	--	
0	VALERENOL-VALERATE	Root	--	--	
0	VALERENOLIC-ACID	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	VALERENOLIC-ACID	Root Essent. Oil	--	--	
0	VALERENOLIC-ACID	Root	--	--	
2	VALERENONE	Root	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
2	VALERENONE	Rhizome	--	--	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
0	VALERENONIC-ACID	Root	190	1400	
0	VALERIADIPYRIDONE	Rhizome	--	--	
0	VALERIANA-PHENOL	Rhizome	--	--	
0	VALERIANINE	Root	--	--	
0	VALERIANOL	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	VALERIANOL	Root Essent. Oil	--	--	
0	VALERIANOLIC-ACID	Root	--	--	
0	VALERIANONE	Root	--	--	
9	VALERIC-ACID	Root	--	--	
0	VALERIDINE	Root	--	--	
0	VALERINE	Root	--	--	
0	VALERINE	Leaf	--	--	
0	VALEROSIDATE	Root	--	15000	
0	VALEROSIDATUM	Root	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	VALEROSIDE-A	Root	--	440	
0	VALEROSIDE-A	Rhizome	--	440	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference Citation
3	VALINE	Rhizome	--	--	
2	VALTRATE	Root	4000	18000	
2	VALTRATE	Tissue Culture	380	450	
2	VALTRATE	Rhizome	--	--	
2	VALTRATE	Plant	--	--	
0	VALTRATE-ISOVALEROXYHYDRIN	Root	--	--	
0	WATER	Root	--	882000	0.7380110340947351
77	ZINC	Root	--	--	