

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

**Chemicals Found in *Valeriana officinalis***

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	(-)-BORNEOL	Root Essent. Oil	--	--		
3	(-)-BORNEOL	Root	--	--		
67	1,8-CINEOLE	Leaf	85	1660	-0.31670589111205333	
16	ACETIC-ACID	Root	--	--		
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	--	--		
3	ALPHA-CURCUMENE	Plant	--	--		
3	ALPHA-CURCUMENE	Root	--	--		
28	ALPHA-PINENE	Leaf Essent. Oil	1000	239100	0.56220044446693538	
28	ALPHA-PINENE	Essential Oil	--	--		
28	ALPHA-PINENE	Rhizome Essent. Oil	--	--		
28	ALPHA-PINENE	Root Essent. Oil	--	25000	-0.9573580453647603	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
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	
5	ALUMINUM	Root	50	422	-0.0860532203055952	
3	AR-CURCUMENE	Root	--	--		
14	ARGININE	Rhizome	--	--		
112	ASCORBIC-ACID	Root	--	--	-0.6459735820044326	
2	ASPARAGINE	Rhizome	--	--		
3	ASPARTIC-ACID	Rhizome	--	--		
10	AZULENE	Root	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	--	--		
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.
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	--	--		
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	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.
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.
12	BORNYL-ACETATE	Root	65	6300	1.731951097266349	
12	BORNYL-ACETATE	Leaf	9	8565	4.276392512629336	
1	BORNYL-FORMATE	Root	--	--		
102	CAFFEIC-ACID	Plant	--	--		
102	CAFFEIC-ACID	Root	--	5800	1.5698864543151345	
28	CALCIUM	Root	4956	42000	3.7890171974850206	

Activity Count	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 Essent. Oil	--	--		
9	CAMPHENE	Root Essent. Oil	--	--		
9	CAMPHENE	Leaf Essent. Oil	--	5000	-0.6992473325340675	
9	CAMPHENE	Leaf	--	130	-0.14355459328033415	Father Nature's Pharmacy: The aggregate of all these three-letter citations.
37	CARVACROL	Root	10	195		
19	CARVONE	Root	80	1640	1.4122006603747708	
31	CARYOPHYLLENE	Root	29	1520	1.7213037548491001	Father Nature's Pharmacy: 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 Pharmacy: The aggregate of all these three-letter citations.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	CATALASE	Plant	--	--		
1	CATALASE	Root	--	--		
77	CHLOROGENIC-ACID	Root	--	7300	0.9018283707528216	
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	
2	COBALT	Root	0.6	4.8	-0.4410243796700459	
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		
9	DELTA-CADINENE	Root	--	--		
1	DIHYDROCARVYL-ACETATE	Root	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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	--	--		
6	EUGENYL-ACETATE	Root	--	--		
15	FIBER	Root	79000	79000	-0.20236031507008168	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
13	FORMIC-ACID	Root	--	--		
8	FRUCTOSE	Root	9000	9000	-0.4564787045656782	
22	GABA	Root	--	--		
22	GAMMA-AMINOBUTYRIC-ACID	Root	--	--		
22	GAMMA-AMINOBUTYRIC-ACID	Rhizome	--	--		
20	GAMMA-LINOLENIC-ACID	Plant	--	62000		
11	GAMMA-TERPINENE	Root	--	--		
11	GAMMA-TERPINENE	Root Essent. Oil	--	--		
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	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	GLUTAMIC-ACID	Root	--	--		
5	GLUTAMINE	Root	--	--		
5	GLUTAMINE	Rhizome	--	--		
6	GUAIAZULENE	Root Essent. Oil	--	--		
3	GUAIOL	Root	--	--		
1	HOMOBALDRINAL	Root	--	--		
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.
2	ISOBORNYL-ACETATE	Root	55	3030		
3	ISOLEUCINE	Rhizome	--	--		
5	ISOVALERIC-ACID	Root	--	--		
5	ISOVALERIC-ACID	Root Essent. Oil	--	--		
75	KAEMPFEROL	Plant	--	--		
2	LEUCINE	Rhizome	--	--		
60	LIMONENE	Root	--	--		



Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	LIMONENE	Root Essent. Oil	--	--		
60	LIMONENE	Leaf Essent. Oil	2300	25500	-0.5655050351348929	
27	LINOLEIC-ACID	Plant	--	165000	1.9964479270741882	
78	LUTEOLIN	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	--	--		
2	MYRTENOL	Plant	--	--		
2	MYRTENOL	Root	3	85		Father Nature's Farmacy: The aggregate of all these three-letter citations.
1	MYRTENYL-ACETATE	Root	--	--		
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		

Activity Count	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	
25	P-COUMARIC-ACID	Plant	--	--		
16	P-CYMENE	Root Essent. Oil	--	--		
16	P-CYMENE	Root	--	--		
13	PALMITIC-ACID	Plant	--	--		
13	PALMITIC-ACID	Root	--	83000	3.577003804191027	
7	PHENYLALANINE	Rhizome	--	--		
4	PHOSPHORUS	Root	39	330	-0.560116109548552	
14	POTASSIUM	Root	1215	10300	-0.4011752971664641	
176	QUERCETIN	Plant	--	--		
1	RAFFINOSE	Root	30000	30000	-0.5987994606248946	
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.
60	SELENIUM	Root	0.5	4.4	-0.04945181208643408	
1	SERINE	Rhizome	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	SILICON	Root	0.1	0.9	-0.3387704380211594	
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	--	--		
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.
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	
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.
71	THYMOL	Root	3	860		
4	TIN	Root	3.3	28	1.1703735322377322	

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8	TYROSINE	Root	--	--		
6	VALEPOTRIATES	Root	1000	23600	-1	
6	VALEPOTRIATES	Rhizome	--	--		
6	VALEPOTRIATES	Tissue Culture	--	103000		Medline (post 1990 searches filed in my computer)
4	VALERENIC-ACID	Root	--	--		
4	VALERENIC-ACID	Root Essent. Oil	--	--		
2	VALERENONE	Root	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
2	VALERENONE	Rhizome	--	--		
9	VALERIC-ACID	Root	--	--		
3	VALINE	Rhizome	--	--		
2	VALTRATE	Root	4000	18000		
2	VALTRATE	Tissue Culture	380	450		
2	VALTRATE	Rhizome	--	--		
2	VALTRATE	Plant	--	--		
77	ZINC	Root	--	--		