

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Pimenta dioica*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
67	1,8-CINEOLE	Fruit		142.0	-0.4152844919391697	--
67	1,8-CINEOLE	Leaf		51.0	-0.523664583248735	--
3	ACETONE	Plant				--
2	ALPHA-HUMULENE	Fruit		405.0	-0.3953664035391883	--
2	ALPHA-HUMULENE	Leaf Essent. Oil				--
11	ALPHA-PHELLANDRENE	Fruit		6.0	-0.5736201696885931	--
11	ALPHA-PHELLANDRENE	Leaf		59.0	-0.2724798984020604	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	ALPHA-PHELLANDRENE	Leaf Essent. Oil				--
28	ALPHA-PINENE	Fruit		14.0	-0.7151283547486822	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
28	ALPHA-PINENE	Leaf		20.0	-0.22324603244709168	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
28	ALPHA-PINENE	Leaf Essent. Oil				--
3	ALPHA-SELINENE	Leaf		45.0	0.10833579294760737	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	ALPHA-SELINENE	Fruit		315.0	-0.17833371703484516	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	ALPHA-SELINENE	Leaf Essent. Oil				--
13	ALPHA-TERPINENE	Leaf		11.0	-0.30667825501370594	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	ALPHA-TERPINENE	Fruit		3.0	-0.44374837770622017	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
23	ALPHA-TERPINEOL	Plant				--
5	ALUMINUM	Plant		110.0	-0.5382991405371662	--
3	AR-CURCUMENE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	AROMADENDRENE	Plant				--
112	ASCORBIC-ACID	Fruit		426.0	-0.2580016065709841	--
112	ASCORBIC-ACID	Leaf	2012.0	2067.0	-0.2521288359523834	--
53	BETA-CAROTENE	Fruit		4.0	-0.1430687011995372	--
53	BETA-CAROTENE	Leaf	103.0	120.0	-0.6153455669506752	--
5	BETA-ELEMENE	Plant				--
3	BETA-PHELLANDRENE	Plant				--
3	BETA-PHELLANDRENE	Fruit				--
13	BETA-PINENE	Plant				--
3	BETA-SELINENE	Plant				--
47	BETA-SITOSTEROL	Fruit	570.0	590.0	-0.01905127369053271	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
4	BORON	Fruit	9.0	25.0	-0.3005608385286328	Betting on Boron, Unpublished draft by J. A. Duke on file at USDA, draft and papers relating to boron percentages. Includes Internat. Z. Vit. Ern. Forschung 43:1973 (boron).
3	CADMIUM	Plant		0.05	-0.8187470214027749	--
28	CALCIUM	Leaf	10056.0	11166.0	-0.4968226526695569	--
28	CALCIUM	Fruit	7224.0	8000.0	0.9562048951774965	--
4	CALCIUM-OXALATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	CAMPESTEROL	Fruit		10.0	-0.574497534390022	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
31	CARYOPHYLLENE	Leaf		760.0	-0.24358897993110573	--
31	CARYOPHYLLENE	Fruit		1341.0	-0.3560842600409065	--
1	CARYOPHYLLENE-ALCOHOL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	CARYOPHYLENE-OXIDE	Plant				--
1	CATECHINS	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
3	CHAVICOL	Fruit	1400.0	2400.0	1.3851806567213685	--
3	CHAVICOL	Leaf				--
24	CHROMIUM	Plant		5.0	-0.39700126313461825	--
60	CINNAMALDEHYDE	Plant				--
1	CIS-3-HEXENOL	Plant				--
3	CIS-OCIMENE	Plant				--
2	COBALT	Plant		0.05	-0.47578028445391224	--
1	COPAENE	Leaf		9.0	-0.626454859293784	--
1	COPAENE	Fruit		15.0	-0.7078723703089148	--
12	COPPER	Bud	5.0	10.0		USDA's Ag Handbook 8 and sequela)
8	DELTA-3-CARENE	Fruit		30.0	-0.5630094212434373	--
9	DELTA-CADINENE	Leaf Essent. Oil				--
9	DELTA-CADINENE	Leaf		50.0	-0.24641334861755498	--
9	DELTA-CADINENE	Fruit		51.0	-0.4598385498757147	--
1	ETHYL-BENZOATE	Plant				--
76	EUGENOL	Flower Essent. Oil		543000.0		--
76	EUGENOL	Leaf Essent. Oil		792400.0	1.1351063586498586	--
76	EUGENOL	Leaf	8348.0	12000.0	0.593677045891266	--
76	EUGENOL	Fruit	3500.0	36000.0	1.4142135623730538	--
5	EUGENOL-METHYL-ETHER	Fruit	8000.0	22500.0		--
5	EUGENOL-METHYL-ETHER	Leaf Essent. Oil				--
15	FIBER	Leaf	175000.0	179000.0	0.2159757383407224	--
11	GAMMA-TERPINENE	Leaf		17.0	-0.33914517533266125	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
11	GAMMA-TERPINENE	Leaf Essent. Oil				--
11	GAMMA-TERPINENE	Fruit		35.0	-0.64488354510724	--
5	GERANYL-ACETATE	Plant				--
3	HEXANOL	Plant				--
6	IRON	Leaf	76.0	95.0	-0.6797780759383169	--
6	IRON	Fruit	60.0	85.0	-0.19031609195369079	--
1	ISOCARYOPHYLLENE	Plant				--
16	ISOEUGENOL	Leaf Essent. Oil				--
16	ISOEUGENOL	Plant				--
22	ISOQUERCITRIN	Fruit				--
1	ISOVALERALDEHYDE	Plant				--
60	LIMONENE	Leaf Essent. Oil				--
60	LIMONENE	Leaf		15.0	-0.43200420914823834	--
60	LIMONENE	Fruit		28.0	-0.7461881384241233	--
53	LINALOOL	Leaf Essent. Oil				--
53	LINALOOL	Fruit		42.0	-0.5740281838590767	--
53	LINALOOL	Leaf		5.0	-0.6439814140923522	--
65	MAGNESIUM	Fruit	1200.0	1480.0	-0.3008659074610599	--
15	MALIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	MANGANESE	Bud	29.0	70.0		USDA's Ag Handbook 8 and sequelae)
1	MERCURY	Plant		0.05	-0.5015252885658961	--
4	METHYL-BENZOATE	Plant				--
6	METHYL-CHAVICOL	Leaf		3.0	-0.7020598486430413	--
6	METHYL-CHAVICOL	Fruit		60.0	-0.8934789720128694	--
20	METHYL-EUGENOL	Fruit		1500.0	-1.0	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
20	METHYL-EUGENOL	Leaf		190.0	-0.7828372252747813	--
22	MYRCENE	Leaf		20.0	-0.1654584943659963	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
22	MYRCENE	Fruit		45.0	-0.3775565865925302	--
39	NIACIN	Leaf	1.4	1.8	-1.1640648502813271	--
39	NIACIN	Fruit		3.1	-0.7699868154684664	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
16	P-CYMENE	Leaf		78.0	-0.33531133695394194	--
16	P-CYMENE	Fruit		87.0	-0.5682499633585989	--
16	P-CYMENE	Leaf Essent. Oil				--
4	PHOSPHORUS	Fruit	1100.0	1235.0	-0.6017068965285103	--
4	PHOSPHORUS	Leaf	1173.0	1399.0	-0.657285112269021	--
2	PHYTOSTEROLS	Fruit		666.0	-0.35991370861065225	--
14	POTASSIUM	Fruit	11000.0	11410.0	-0.5756542738198089	--
34	PROANTHOCYANIDINS	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
44	QUERCITRIN	Fruit				--
15	RIBOFLAVIN	Leaf	2.3	3.5	-0.1614553235659462	--
15	RIBOFLAVIN	Fruit		0.7	-0.9229081816681621	--
5	SABINENE	Plant				--
5	SABINENE	Leaf Essent. Oil				--
7	SALICYLATES	Fruit	5.0	55.0	-0.1790315119116865	--
60	SELENIUM	Plant		0.04	-0.42573678426264966	--
1	SODIUM	Fruit	800.0	842.0	-0.10410487208848104	--
12	STIGMASTEROL	Fruit		30.0	-0.7564559504417369	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
23	TERPINEN-4-OL	Fruit		1260.0	-0.1674917163075372	--
9	TERPINOLENE	Fruit		42.0	-0.47960566955795886	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	TERPINOLENE	Leaf		27.0	-0.1976999894416478	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	TERPINOLENE	Leaf Essent. Oil				--
31	THIAMIN	Leaf	1.1	1.7	-1.3764356884885183	--
31	THIAMIN	Fruit		1.1	-0.5418092366178694	--
1	TOLUENE	Plant				--
4	TRANS-2-HEXENAL	Plant				--
8	TRANS-ANETHOLE	Plant				--
16	VANADIUM	Plant		0.2	1.0000000000000002	--
77	ZINC	Fruit	11.0	20.0	-0.30993109880344666	--