

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Pimenta dioica*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
112	ASCORBIC-ACID	Fruit		426.0	-0.2580016065709841	--
112	ASCORBIC-ACID	Leaf	2012.0	2067.0	-0.2521288359523834	--
77	ZINC	Fruit	11.0	20.0	-0.30993109880344666	--
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	--
67	1,8-CINEOLE	Leaf		51.0	-0.523664583248735	--
67	1,8-CINEOLE	Fruit		142.0	-0.4152844919391697	--
65	MAGNESIUM	Fruit	1200.0	1480.0	-0.3008659074610599	--
60	LIMONENE	Leaf Essent. Oil				--
60	LIMONENE	Leaf		15.0	-0.43200420914823834	--
60	SELENIUM	Plant		0.04	-0.42573678426264966	--
60	CINNAMALDEHYDE	Plant				--
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	--
53	BETA-CAROTENE	Fruit		4.0	-0.1430687011995372	--
53	BETA-CAROTENE	Leaf	103.0	120.0	-0.6153455669506752	--
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.)
44	QUERCITRIN	Fruit				--
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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
34	PROANTHOCYANIDINS	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
31	CARYOPHYLLENE	Leaf		760.0	-0.24358897993110573	--
31	CARYOPHYLLENE	Fruit		1341.0	-0.3560842600409065	--
31	THIAMIN	Leaf	1.1	1.7	-1.3764356884885183	--
31	THIAMIN	Fruit		1.1	-0.5418092366178694	--
28	CALCIUM	Fruit	7224.0	8000.0	0.9562048951774965	--
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	CALCIUM	Leaf	10056.0	11166.0	-0.4968226526695569	--
28	ALPHA-PINENE	Leaf Essent. Oil				--
24	CHROMIUM	Plant		5.0	-0.39700126313461825	--
23	ALPHA-TERPINEOL	Plant				--
23	TERPINEN-4-OL	Fruit		1260.0	-0.1674917163075372	--
22	ISOQUERCITRIN	Fruit				--
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	--
20	METHYL-EUGENOL	Fruit		1500.0	-1.0	--
20	METHYL-EUGENOL	Leaf		190.0	-0.7828372252747813	--
16	ISOEUGENOL	Plant				--
16	P-CYMENE	Leaf		78.0	-0.33531133695394194	--
16	VANADIUM	Plant		0.2	1.0000000000000002	--
16	P-CYMENE	Leaf Essent. Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
16	ISOEUGENOL	Leaf Essent. Oil				--
16	P-CYMENE	Fruit		87.0	-0.5682499633585989	--
15	MALIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	RIBOFLAVIN	Leaf	2.3	3.5	-0.1614553235659462	--
15	RIBOFLAVIN	Fruit		0.7	-0.9229081816681621	--
15	FIBER	Leaf	175000.0	179000.0	0.2159757383407224	--
14	MANGANESE	Bud	29.0	70.0		USDA's Ag Handbook 8 and sequelae)
14	POTASSIUM	Fruit	11000.0	11410.0	-0.5756542738198089	--
13	BETA-PINENE	Plant				--
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.
12	COPPER	Bud	5.0	10.0		USDA's Ag Handbook 8 and sequelae)
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.)
11	ALPHA-PHELLANDRENE	Leaf Essent. Oil				--
11	GAMMA-TERPINENE	Leaf		17.0	-0.33914517533266125	--
11	GAMMA-TERPINENE	Leaf Essent. Oil				--
11	GAMMA-TERPINENE	Fruit		35.0	-0.64488354510724	--
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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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				--
9	DELTA-CADINENE	Leaf Essent. Oil				--
9	DELTA-CADINENE	Fruit		51.0	-0.4598385498757147	--
9	DELTA-CADINENE	Leaf		50.0	-0.24641334861755498	--
8	CARYOPHYLENE-OXIDE	Plant				--
8	DELTA-3-CARENE	Fruit		30.0	-0.5630094212434373	--
8	TRANS-ANETHOLE	Plant				--
7	SALICYLATES	Fruit	5.0	55.0	-0.1790315119116865	--
6	METHYL-CHAVICOL	Fruit		60.0	-0.8934789720128694	--
6	IRON	Fruit	60.0	85.0	-0.19031609195369079	--
6	IRON	Leaf	76.0	95.0	-0.6797780759383169	--
6	METHYL-CHAVICOL	Leaf		3.0	-0.7020598486430413	--
5	GERANYL-ACETATE	Plant				--
5	ALUMINUM	Plant		110.0	-0.5382991405371662	--
5	BETA-ELEMENE	Plant				--
5	SABINENE	Plant				--
5	EUGENOL-METHYL-ETHER	Leaf Essent. Oil				--
5	EUGENOL-METHYL-ETHER	Fruit	8000.0	22500.0		--
5	SABINENE	Leaf Essent. Oil				--
4	TRANS-2-HEXENAL	Plant				--
4	METHYL-BENZOATE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	CALCIUM-OXALATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	PHOSPHORUS	Leaf	1173.0	1399.0	-0.657285112269021	--
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).
4	PHOSPHORUS	Fruit	1100.0	1235.0	-0.6017068965285103	--
3	CHAVICOL	Leaf				--
3	BETA-PHELLANDRENE	Plant				--
3	BETA-PHELLANDRENE	Fruit				--
3	CIS-OCIMENE	Plant				--
3	ALPHA-SELINENE	Leaf		45.0	0.10833579294760737	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	ACETONE	Plant				--
3	HEXANOL	Plant				--
3	CADMIUM	Plant		0.05	-0.8187470214027749	--
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				--
3	AROMADENDRENE	Plant				--
3	CHAVICOL	Fruit	1400.0	2400.0	1.3851806567213685	--
3	BETA-SELINENE	Plant				--
3	AR-CURCUMENE	Plant				--
2	ALPHA-HUMULENE	Leaf Essent. Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.)
2	ALPHA-HUMULENE	Fruit		405.0	-0.3953664035391883	--
2	COBALT	Plant		0.05	-0.47578028445391224	--
2	PHYTOSTEROLS	Fruit		666.0	-0.35991370861065225	--
1	CATECHINS	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
1	SODIUM	Fruit	800.0	842.0	-0.10410487208848104	--
1	ISOCARYOPHYLLENE	Plant				--
1	TOLUENE	Plant				--
1	MERCURY	Plant		0.05	-0.5015252885658961	--
1	COPAENE	Leaf		9.0	-0.626454859293784	--
1	CARYOPHYLLENE-ALCOHOL	Plant				--
1	CIS-3-HEXENOL	Plant				--
1	COPAENE	Fruit		15.0	-0.7078723703089148	--
1	ISOVALERALDEHYDE	Plant				--
1	ETHYL-BENZOATE	Plant				--
0	ALPHA-MUUROLENE	Leaf		45.0	1.6512122064976056	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	EPIGLOBULOL	Plant				--
0	PENTANOL	Plant				--
0	ALPHA-P-DIMETHYL-STYRENE	Fruit		15.0	-1.162476387438193	--
0	10-EPI-(ALPHA)-CADINOL	Plant				--
0	ALPHA-COPAENE	Leaf Essent. Oil				--
0	CUBENENE	Plant				--
0	PIMENTOL	Fruit		800.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	TRANS-OCIMENE	Fruit		35.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-MUUROLENE	Leaf Essent. Oil				--
0	SELINE-4(14),11-DIENE	Plant				--
0	ALPHA-MAALIENE	Plant				--
0	EPICUBENOL	Plant				--
0	ZONARENE	Plant				--
0	PENTADECANE	Plant				--
0	ALPHA-MUUROLENE	Fruit		315.0	-0.3848573067824942	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	10-(ALPHA)-CADINOL	Fruit	66.0	1000.0	-1.0	--
0	ALLO-AROMADENDRENE	Leaf Essent. Oil				--
0	ALPHA-THUJENE	Leaf		20.0	-0.4177673825705209	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CARYOPHYLLENE-ALDEHYDE	Plant				--
0	SELINA-4,11-DIENE	Plant				--
0	EO	Leaf	7500.0	12500.0	0.0848785007274081	--
0	BETA-HUMULENE	Fruit		405.0		--
0	ALPHA-GURJUNENE	Fruit		42.0		--
0	GAMMA-CADINENE	Fruit		51.0	-0.08104963530490027	--
0	PHYTOSTEROL	Fruit	610.0	665.0		Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
0	INTERMEDIOL	Plant				--
0	ALPHA-GURJUNENE	Leaf Essent. Oil				--
0	SELINA-3,11-DIENE	Plant				--
0	ALPHA-GURJUNENE	Leaf		5.0	-0.5838617665778135	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	EO	Fruit	20000.0	50000.0	0.1518886748253213	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	P-CYMEN-8-OL	Leaf		13.0	-0.27850366661659065	--
0	ALLO-AROMADENDRENE	Fruit		204.0	-0.6431371812176149	--
0	FURFURALDEHYDE	Plant				--
0	TETRADECANE	Plant				--
0	CARBOHYDRATES	Plant	749000.0	757000.0	0.544740122808857	--
0	ALPHA-CADINENE	Plant				--
0	HUMULENE-EPOXIDE-II	Plant				--
0	EIXOSANE	Plant				--
0	VALERALDEHYDE	Plant				--
0	BETA-COPAENE	Plant				--
0	OCTANOL	Plant				--
0	FUFUROL	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TETRACOSANE	Plant				--
0	ALLO-AROMADENDRENE	Leaf		12.0	-0.19965840557965248	--
0	HUMULENE-EPOXIDE-I	Plant				--
0	DODECANE	Plant				--
0	UNDECANE	Plant				--
0	OCTADECANE	Plant				--
0	TRANS-BETA-OCIMENE	Leaf Essent. Oil				--
0	FLUORINE	Plant		5.0	-0.8232345301786249	--
0	1,8-CINEOL	Leaf Essent. Oil				--
0	CIS-ALPHA-BERGAMOTENE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	GLYCOSIDES	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ALPHA-SANTALENE	Plant				--
0	LINALOL	Leaf		5.0	-0.43963782112961997	--
0	FAT	Leaf	36000.0	41000.0	-0.3081101927392882	--
0	ALPHA-THUJENE	Fruit		14.0	-0.5835458707004604	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	DOCOSANE	Plant				--
0	TRIDECANE	Plant				--
0	BARIUM	Plant		20.0	-1.3760690147148127	--
0	NONADECANE	Plant				--
0	CARBOHYDRATE	Plant	749000.0	757000.0	0.7647883491334662	--
0	LEDOL	Plant				--
0	CALAMANENE	Fruit		90.0		--
0	PROTEIN	Fruit	117000.0	134000.0	0.328452725551993	--
0	4,8-EPOXYTERPINOLENE	Plant				--
0	HEXADECANE	Plant				--
0	DELTA-SELINENE	Plant				--
0	TRICOSANE	Plant				--
0	ASH	Leaf	76000.0	89000.0	-0.525950170714926	--
0	TERPIN-1-EN-4-OL	Leaf Essent. Oil				--
0	T-MUUROLOL	Plant				--
0	GAMMA-CADINENE	Leaf		50.0	0.07376501614150445	--
0	LEDENE	Fruit		237.0		--
0	CIS-BETA-OCIMENE	Leaf Essent. Oil				--
0	POTASIUUM	Fruit	11000.0	11410.0	-0.550554488479228	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2-METHYL-BUTYL-ACETATE	Fruit		3.0		--
0	HEPTANAL	Plant				--
0	CONIFERALDEHYDE	Fruit Essent. Oil				--
0	TRANS-P-MENTHA-1(10),5,DIENE-2-OL	Plant				--
0	P-CYMEN-8-OL	Fruit		18.0	1.0	--
0	EICOSANE	Plant				--
0	1-OCTEN-3-OLE	Fruit				--
0	STRONTIUM	Plant		20.0	-0.8782466666743383	--
0	ALPHA-PALUSTRINE	Plant				--
0	LEAD	Plant		0.8	-0.5492766752904812	--
0	CINEOLE	Plant		690.0	-0.5510004014017486	--
0	2-METHYL-BUTANOL	Plant				--
0	HEPTADECANE	Plant				--
0	CONIFERALDEHYDE	Leaf Essent. Oil				--
0	TRANS-OCIMENE	Leaf		17.0	-0.8927086392311695	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-P-DIMETHYL-STYRENE	Leaf		9.0	-0.004343651602302643	--
0	SPATHULENOL	Fruit		60.0	1.0	--
0	10-EPIZONARENE	Plant				--
0	GLOBULOL	Fruit		33.0	1.0	--
0	BETA-CARYOPHYLLENE	Leaf Essent. Oil				--
0	CYCLOSATIVENE	Plant				--
0	QUERCETIN-3-O-BETA-D-XYLOSIDE	Fruit				--
0	CALAMENENE	Fruit		90.0	-0.5866732935178128	--
0	3-OCTANON	Fruit				--