

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Pimenta dioica*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	CARBOHYDRATES	Plant	749000.0	757000.0	0.544740122808857	--
0	CARBOHYDRATE	Plant	749000.0	757000.0	0.7647883491334662	--
15	FIBER	Leaf	175000.0	179000.0	0.2159757383407224	--
0	PROTEIN	Fruit	117000.0	134000.0	0.328452725551993	--
0	ASH	Leaf	76000.0	89000.0	-0.525950170714926	--
0	FAT	Leaf	36000.0	41000.0	-0.3081101927392882	--
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.
14	POTASSIUM	Fruit	11000.0	11410.0	-0.5756542738198089	--
0	POTASIUM	Fruit	11000.0	11410.0	-0.550554488479228	--
28	CALCIUM	Leaf	10056.0	11166.0	-0.4968226526695569	--
76	EUGENOL	Leaf	8348.0	12000.0	0.593677045891266	--
5	EUGENOL-METHYL-ETHER	Fruit	8000.0	22500.0		--
0	EO	Leaf	7500.0	12500.0	0.0848785007274081	--
28	CALCIUM	Fruit	7224.0	8000.0	0.9562048951774965	--
76	EUGENOL	Fruit	3500.0	36000.0	1.4142135623730538	--
112	ASCORBIC-ACID	Leaf	2012.0	2067.0	-0.2521288359523834	--
3	CHAVICOL	Fruit	1400.0	2400.0	1.3851806567213685	--
65	MAGNESIUM	Fruit	1200.0	1480.0	-0.3008659074610599	--
4	PHOSPHORUS	Leaf	1173.0	1399.0	-0.657285112269021	--
4	PHOSPHORUS	Fruit	1100.0	1235.0	-0.6017068965285103	--
1	SODIUM	Fruit	800.0	842.0	-0.10410487208848104	--
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.)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.)
53	BETA-CAROTENE	Leaf	103.0	120.0	-0.6153455669506752	--
6	IRON	Leaf	76.0	95.0	-0.6797780759383169	--
0	10-(ALPHA)-CADINOL	Fruit	66.0	1000.0	-1.0	--
6	IRON	Fruit	60.0	85.0	-0.19031609195369079	--
14	MANGANESE	Bud	29.0	70.0		USDA's Ag Handbook 8 and sequelae)
77	ZINC	Fruit	11.0	20.0	-0.30993109880344666	--
4	BORON	Fruit	9.0	25.0	-0.3005608385286328	Betting on Boron, Unpublished draft by J. A. Duke on file at USDA, draft and papers relating to boron percentages.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).
12	COPPER	Bud	5.0	10.0		USDA's Ag Handbook 8 and sequelae)
7	SALICYLATES	Fruit	5.0	55.0	-0.1790315119116865	--
15	RIBOFLAVIN	Leaf	2.3	3.5	-0.1614553235659462	--
39	NIACIN	Leaf	1.4	1.8	-1.1640648502813271	--
31	THIAMIN	Leaf	1.1	1.7	-1.3764356884885183	--
8	DELTA-3-CARENE	Fruit		30.0	-0.5630094212434373	--
0	TRANS-OCIMENE	Leaf		17.0	-0.8927086392311695	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
39	NIACIN	Fruit		3.1	-0.7699868154684664	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	AROMADENDRENE	Plant				--
20	METHYL-EUGENOL	Leaf		190.0	-0.7828372252747813	--
44	QUERCITRIN	Fruit				--
1	ISOVALERALDEHYDE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	ALPHA-PINENE	Leaf Essent. Oil				--
24	CHROMIUM	Plant		5.0	-0.39700126313461825	--
0	SPATHULENOL	Fruit		60.0	1.0	--
1	COPAENE	Fruit		15.0	-0.7078723703089148	--
0	ALPHA-P-DIMETHYL-STYRENE	Leaf		9.0	-0.004343651602302643	--
1	ETHYL-BENZOATE	Plant				--
60	LIMONENE	Fruit		28.0	-0.7461881384241233	--
3	BETA-SELINENE	Plant				--
11	ALPHA-PHELLANDRENE	Leaf		59.0	-0.2724798984020604	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	10-EPIZONARENE	Plant				--
0	GLOBULOL	Fruit		33.0	1.0	--
0	TRANS-OCIMENE	Fruit		35.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BETA-CARYOPHYLLENE	Leaf Essent. Oil				--
0	CYCLOSATIVENE	Plant				--
8	TRANS-ANETHOLE	Plant				--
22	MYRCENE	Fruit		45.0	-0.3775565865925302	--
3	AR-CURCUMENE	Plant				--
6	METHYL-CHAVICOL	Leaf		3.0	-0.7020598486430413	--
0	QUERCETIN-3-O-BETA-D-XYLOSIDE	Fruit				--
0	CALAMENENE	Fruit		90.0	-0.5866732935178128	--
16	ISOEUGENOL	Plant				--
11	ALPHA-PHELLANDRENE	Leaf Essent. Oil				--
3	CHAVICOL	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	CATECHINS	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
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				--
31	CARYOPHYLLENE	Leaf		760.0	-0.24358897993110573	--
13	BETA-PINENE	Plant				--
0	PENTANOL	Plant				--
0	ALPHA-P-DIMETHYL-STYRENE	Fruit		15.0	-1.162476387438193	--
0	10-EPI-(ALPHA)-CADINOL	Plant				--
5	GERANYL-ACETATE	Plant				--
0	ALPHA-COPAENE	Leaf Essent. Oil				--
0	CUBENENE	Plant				--
4	TRANS-2-HEXENAL	Plant				--
20	METHYL-EUGENOL	Fruit		1500.0	-1.0	--
5	ALUMINUM	Plant		110.0	-0.5382991405371662	--
4	METHYL-BENZOATE	Plant				--
0	PIMENTOL	Fruit		800.0		--
0	ALPHA-MUUROLENE	Leaf Essent. Oil				--
8	CARYOPHYLLENE-OXIDE	Plant				--
0	SELINENE-4(14),11-DIENE	Plant				--
31	CARYOPHYLLENE	Fruit		1341.0	-0.3560842600409065	--
0	ALPHA-MAALIENE	Plant				--
1	ISOCARYOPHYLLENE	Plant				--
0	EPICUBENOL	Plant				--
0	ZONARENE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	BETA-PHELLANDRENE	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.
11	GAMMA-TERPINENE	Leaf		17.0	-0.33914517533266125	--
9	TERPINOLENE	Fruit		42.0	-0.47960566955795886	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALLO-AROMADENDRENE	Leaf Essent. Oil				--
1	TOLUENE	Plant				--
6	METHYL-CHAVICOL	Fruit		60.0	-0.8934789720128694	--
0	ALPHA-THUJENE	Leaf		20.0	-0.4177673825705209	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	MERCURY	Plant		0.05	-0.5015252885658961	--
53	LINALOOL	Leaf Essent. Oil				--
2	ALPHA-HUMULENE	Leaf Essent. Oil				--
0	CARYOPHYLLENE-ALDEHYDE	Plant				--
0	SELINA-4,11-DIENE	Plant				--
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	--
0	BETA-HUMULENE	Fruit		405.0		--
16	P-CYMENE	Leaf		78.0	-0.33531133695394194	--
0	ALPHA-GURJUNENE	Fruit		42.0		--
67	1,8-CINEOLE	Leaf		51.0	-0.523664583248735	--
0	GAMMA-CADINENE	Fruit		51.0	-0.08104963530490027	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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.)
1	COPAENE	Leaf		9.0	-0.626454859293784	--
31	THIAMIN	Fruit		1.1	-0.5418092366178694	--
53	LINALOOL	Fruit		42.0	-0.5740281838590767	--
23	ALPHA-TERPINEOL	Plant				--
60	LIMONENE	Leaf Essent. Oil				--
1	CARYOPHYLLENE-ALCOHOL	Plant				--
0	SELINA-3,11-DIENE	Plant				--
0	ALPHA-GURJUNENE	Leaf		5.0	-0.5838617665778135	--
0	INTERMEDIOL	Plant				--
0	ALPHA-GURJUNENE	Leaf Essent. Oil				--
16	VANADIUM	Plant		0.2	1.0000000000000002	--
5	BETA-ELEMENE	Plant				--
0	P-CYMEN-8-OL	Leaf		13.0	-0.27850366661659065	--
0	ALLO-AROMADENDRENE	Fruit		204.0	-0.6431371812176149	--
0	FURFURALDEHYDE	Plant				--
53	LINALOOL	Leaf		5.0	-0.6439814140923522	--
0	TETRADECANE	Plant				--
60	LIMONENE	Leaf		15.0	-0.43200420914823834	--
13	ALPHA-TERPINENE	Leaf		11.0	-0.30667825501370594	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
15	MALIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
22	ISOQUERCITRIN	Fruit				--
2	COBALT	Plant		0.05	-0.47578028445391224	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	SELENIUM	Plant		0.04	-0.42573678426264966	--
53	BETA-CAROTENE	Fruit		4.0	-0.1430687011995372	--
0	ALPHA-CADINENE	Plant				--
0	HUMULENE-EPOXIDE-II	Plant				--
16	P-CYMENE	Leaf Essent. Oil				--
0	EIXOSANE	Plant				--
0	VALERALDEHYDE	Plant				--
0	BETA-COPAENE	Plant				--
0	OCTANOL	Plant				--
67	1,8-CINEOLE	Fruit		142.0	-0.4152844919391697	--
0	FUFUROL	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
3	BETA-PHELLANDRENE	Fruit				--
0	TETRACOSANE	Plant				--
3	ALPHA-SELINENE	Leaf		45.0	0.10833579294760737	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
16	ISOEUGENOL	Leaf Essent. Oil				--
3	CIS-OCIMENE	Plant				--
4	CALCIUM-OXALATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	SABINENE	Plant				--
112	ASCORBIC-ACID	Fruit		426.0	-0.2580016065709841	--
0	ALLO-AROMADENDRENE	Leaf		12.0	-0.19965840557965248	--
0	HUMULENE-EPOXIDE-I	Plant				--
76	EUGENOL	Flower Essent. Oil		543000.0		--
0	DODECANE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	UNDECANE	Plant				--
34	PROANTHOCYANIDINS	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	OCTADECANE	Plant				--
0	TRANS-BETA-OCIMENE	Leaf Essent. Oil				--
0	FLUORINE	Plant		5.0	-0.8232345301786249	--
0	1,8-CINEOL	Leaf Essent. Oil				--
9	TERPINOLENE	Leaf		27.0	-0.1976999894416478	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
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	--
11	GAMMA-TERPINENE	Leaf Essent. Oil				--
0	CIS-ALPHA-BERGAMOTENE	Plant				--
15	RIBOFLAVIN	Fruit		0.7	-0.9229081816681621	--
0	ALPHA-THUJENE	Fruit		14.0	-0.5835458707004604	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	ACETONE	Plant				--
3	HEXANOL	Plant				--
76	EUGENOL	Leaf Essent. Oil		792400.0	1.1351063586498586	--
0	DOCOSANE	Plant				--
0	TRIDECANE	Plant				--
0	BARIUM	Plant		20.0	-1.3760690147148127	--
0	NONADECANE	Plant				--
9	TERPINOLENE	Leaf Essent. Oil				--



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
11	GAMMA-TERPINENE	Fruit		35.0	-0.64488354510724	--
28	ALPHA-PINENE	Fruit		14.0	-0.7151283547486822	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	LEDOL	Plant				--
5	EUGENOL-METHYL-ETHER	Leaf Essent. Oil				--
1	CIS-3-HEXENOL	Plant				--
23	TERPINEN-4-OL	Fruit		1260.0	-0.1674917163075372	--
0	CALAMANENE	Fruit		90.0		--
13	ALPHA-TERPINENE	Fruit		3.0	-0.44374837770622017	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	4,8-EPOXYTERPINOLENE	Plant				--
0	HEXADECANE	Plant				--
0	1-OCTEN-3-OLE	Fruit				--
9	DELTA-CADINENE	Leaf Essent. Oil				--
0	DELTA-SELINENE	Plant				--
0	TRICOSANE	Plant				--
16	P-CYMENE	Fruit		87.0	-0.5682499633585989	--
0	TERPIN-1-EN-4-OL	Leaf Essent. Oil				--
0	GAMMA-CADINENE	Leaf		50.0	0.07376501614150445	--
11	ALPHA-PHELLANDRENE	Fruit		6.0	-0.5736201696885931	--
0	LEDENE	Fruit		237.0		--
0	CIS-BETA-OCIMENE	Leaf Essent. Oil				--
60	CINNAMALDEHYDE	Plant				--
0	T-MUUROLOL	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.

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				--
9	DELTA-CADINENE	Fruit		51.0	-0.4598385498757147	--
0	TRANS-P-MENTHA-1(10),5,DIENE-2-OL	Plant				--
0	P-CYMEN-8-OL	Fruit		18.0	1.0	--
22	MYRCENE	Leaf		20.0	-0.1654584943659963	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	SABINENE	Leaf Essent. Oil				--
0	EICOSANE	Plant				--
0	LEAD	Plant		0.8	-0.5492766752904812	--
3	ALPHA-SELINENE	Leaf Essent. Oil				--
0	CINEOLE	Plant		690.0	-0.5510004014017486	--
0	STRONTIUM	Plant		20.0	-0.8782466666743383	--
9	DELTA-CADINENE	Leaf		50.0	-0.24641334861755498	--
0	ALPHA-PALUSTRINE	Plant				--
2	PHYTOSTEROLS	Fruit		666.0	-0.35991370861065225	--
28	ALPHA-PINENE	Leaf		20.0	-0.22324603244709168	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	2-METHYL-BUTANOL	Plant				--
0	HEPTADECANE	Plant				--
0	3-OCTANON	Fruit				--
0	CONIFERALDEHYDE	Leaf Essent. Oil				--