

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Pimenta dioica*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
76	EUGENOL	Leaf Essent. Oil		792400.0	1.1351063586498586	--
0	CARBOHYDRATE	Plant	749000.0	757000.0	0.7647883491334662	--
0	CARBOHYDRATES	Plant	749000.0	757000.0	0.544740122808857	--
76	EUGENOL	Flower Essent. Oil		543000.0		--
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	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	FAT	Leaf	36000.0	41000.0	-0.3081101927392882	--
76	EUGENOL	Fruit	3500.0	36000.0	1.4142135623730538	--
5	EUGENOL-METHYL-ETHER	Fruit	8000.0	22500.0		--
0	EO	Leaf	7500.0	12500.0	0.0848785007274081	--
76	EUGENOL	Leaf	8348.0	12000.0	0.593677045891266	--
14	POTASSIUM	Fruit	11000.0	11410.0	-0.5756542738198089	--
0	POTASIUUM	Fruit	11000.0	11410.0	-0.550554488479228	--
28	CALCIUM	Leaf	10056.0	11166.0	-0.4968226526695569	--
28	CALCIUM	Fruit	7224.0	8000.0	0.9562048951774965	--
3	CHAVICOL	Fruit	1400.0	2400.0	1.3851806567213685	--
112	ASCORBIC-ACID	Leaf	2012.0	2067.0	-0.2521288359523834	--
20	METHYL-EUGENOL	Fruit		1500.0	-1.0	--
65	MAGNESIUM	Fruit	1200.0	1480.0	-0.3008659074610599	--
4	PHOSPHORUS	Leaf	1173.0	1399.0	-0.657285112269021	--
31	CARYOPHYLLENE	Fruit		1341.0	-0.3560842600409065	--
23	TERPINEN-4-OL	Fruit		1260.0	-0.1674917163075372	--
4	PHOSPHORUS	Fruit	1100.0	1235.0	-0.6017068965285103	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	10-(ALPHA)-CADINOL	Fruit	66.0	1000.0	-1.0	--
1	SODIUM	Fruit	800.0	842.0	-0.10410487208848104	--
0	PIMENTOL	Fruit		800.0		--
31	CARYOPHYLLENE	Leaf		760.0	-0.24358897993110573	--
0	CINEOLE	Plant		690.0	-0.5510004014017486	--
2	PHYTOSTEROLS	Fruit		666.0	-0.35991370861065225	--
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.)
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.)
112	ASCORBIC-ACID	Fruit		426.0	-0.2580016065709841	--
2	ALPHA-HUMULENE	Fruit		405.0	-0.3953664035391883	--
0	BETA-HUMULENE	Fruit		405.0		--
3	ALPHA-SELINENE	Fruit		315.0	-0.17833371703484516	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-MUUROLENE	Fruit		315.0	-0.3848573067824942	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	LEDENE	Fruit		237.0		--
0	ALLO-AROMADENDRENE	Fruit		204.0	-0.6431371812176149	--
20	METHYL-EUGENOL	Leaf		190.0	-0.7828372252747813	--
67	1,8-CINEOLE	Fruit		142.0	-0.4152844919391697	--
53	BETA-CAROTENE	Leaf	103.0	120.0	-0.6153455669506752	--
5	ALUMINUM	Plant		110.0	-0.5382991405371662	--
6	IRON	Leaf	76.0	95.0	-0.6797780759383169	--
0	CALAMENENE	Fruit		90.0	-0.5866732935178128	--
0	CALAMANENE	Fruit		90.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
16	P-CYMENE	Fruit		87.0	-0.5682499633585989	--
6	IRON	Fruit	60.0	85.0	-0.19031609195369079	--
16	P-CYMENE	Leaf		78.0	-0.33531133695394194	--
14	MANGANESE	Bud	29.0	70.0		USDA's Ag Handbook 8 and sequelae)
6	METHYL-CHAVICOL	Fruit		60.0	-0.8934789720128694	--
0	SPATHULENOL	Fruit		60.0	1.0	--
11	ALPHA-PHELLANDRENE	Leaf		59.0	-0.2724798984020604	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
7	SALICYLATES	Fruit	5.0	55.0	-0.1790315119116865	--
67	1,8-CINEOLE	Leaf		51.0	-0.523664583248735	--
0	GAMMA-CADINENE	Fruit		51.0	-0.08104963530490027	--
9	DELTA-CADINENE	Fruit		51.0	-0.4598385498757147	--
0	GAMMA-CADINENE	Leaf		50.0	0.07376501614150445	--
9	DELTA-CADINENE	Leaf		50.0	-0.24641334861755498	--
3	ALPHA-SELINENE	Leaf		45.0	0.10833579294760737	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
22	MYRCENE	Fruit		45.0	-0.3775565865925302	--
0	ALPHA-MUUROLENE	Leaf		45.0	1.6512122064976056	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-GURJUNENE	Fruit		42.0		--
53	LINALOOL	Fruit		42.0	-0.5740281838590767	--
9	TERPINOLENE	Fruit		42.0	-0.47960566955795886	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	GAMMA-TERPINENE	Fruit		35.0	-0.64488354510724	--
0	TRANS-OCIMENE	Fruit		35.0	-1.0	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	GLOBULOL	Fruit		33.0	1.0	--
8	DELTA-3-CARENE	Fruit		30.0	-0.5630094212434373	--
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.)
60	LIMONENE	Fruit		28.0	-0.7461881384241233	--
9	TERPINOLENE	Leaf		27.0	-0.1976999894416478	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
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).
0	ALPHA-THUJENE	Leaf		20.0	-0.4177673825705209	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
77	ZINC	Fruit	11.0	20.0	-0.30993109880344666	--
28	ALPHA-PINENE	Leaf		20.0	-0.22324603244709168	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BARIUM	Plant		20.0	-1.3760690147148127	--
22	MYRCENE	Leaf		20.0	-0.1654584943659963	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	STRONTIUM	Plant		20.0	-0.8782466666743383	--
0	P-CYMEN-8-OL	Fruit		18.0	1.0	--
11	GAMMA-TERPINENE	Leaf		17.0	-0.33914517533266125	--
0	TRANS-OCIMENE	Leaf		17.0	-0.8927086392311695	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	COPAENE	Fruit		15.0	-0.7078723703089148	--
0	ALPHA-P-DIMETHYL-STYRENE	Fruit		15.0	-1.162476387438193	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	LIMONENE	Leaf		15.0	-0.43200420914823834	--
0	ALPHA-THUJENE	Fruit		14.0	-0.5835458707004604	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
28	ALPHA-PINENE	Fruit		14.0	-0.7151283547486822	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	P-CYMEN-8-OL	Leaf		13.0	-0.27850366661659065	--
0	ALLO-AROMADENDRENE	Leaf		12.0	-0.19965840557965248	--
13	ALPHA-TERPINENE	Leaf		11.0	-0.30667825501370594	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)
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.)
1	COPAENE	Leaf		9.0	-0.626454859293784	--
0	ALPHA-P-DIMETHYL-STYRENE	Leaf		9.0	-0.004343651602302643	--
11	ALPHA-PHELLANDRENE	Fruit		6.0	-0.5736201696885931	--
0	ALPHA-GURJUNENE	Leaf		5.0	-0.5838617665778135	--
0	FLUORINE	Plant		5.0	-0.8232345301786249	--
0	LINALOL	Leaf		5.0	-0.43963782112961997	--
53	LINALOOL	Leaf		5.0	-0.6439814140923522	--
24	CHROMIUM	Plant		5.0	-0.39700126313461825	--
53	BETA-CAROTENE	Fruit		4.0	-0.1430687011995372	--
15	RIBOFLAVIN	Leaf	2.3	3.5	-0.1614553235659462	--
39	NIACIN	Fruit		3.1	-0.7699868154684664	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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2-METHYL-BUTYL-ACETATE	Fruit		3.0		--
6	METHYL-CHAVICOL	Leaf		3.0	-0.7020598486430413	--
39	NIACIN	Leaf	1.4	1.8	-1.1640648502813271	--
31	THIAMIN	Leaf	1.1	1.7	-1.3764356884885183	--
31	THIAMIN	Fruit		1.1	-0.5418092366178694	--
0	LEAD	Plant		0.8	-0.5492766752904812	--
15	RIBOFLAVIN	Fruit		0.7	-0.9229081816681621	--
16	VANADIUM	Plant		0.2	1.0000000000000002	--
1	MERCURY	Plant		0.05	-0.5015252885658961	--
2	COBALT	Plant		0.05	-0.47578028445391224	--
3	CADMIUM	Plant		0.05	-0.8187470214027749	--
60	SELENIUM	Plant		0.04	-0.42573678426264966	--
4	TRANS-2-HEXENAL	Plant				--
4	METHYL-BENZOATE	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	TRANS-BETA-OCIMENE	Leaf Essent. Oil				--
0	1,8-CINEOL	Leaf Essent. Oil				--
0	CUBENENE	Plant				--
0	GLYCOSIDES	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
11	GAMMA-TERPINENE	Leaf Essent. Oil				--
8	CARYOPHYLLENE-OXIDE	Plant				--
0	ALPHA-MAALIENE	Plant				--
0	SELINE-4(14),11-DIENE	Plant				--
1	ISOCARYOPHYLLENE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	EPICUBENOL	Plant				--
3	BETA-PHELLANDRENE	Plant				--
0	ZONARENE	Plant				--
0	PENTADECANE	Plant				--
1	TOLUENE	Plant				--
9	TERPINOLENE	Leaf Essent. Oil				--
5	EUGENOL-METHYL-ETHER	Leaf Essent. Oil				--
0	CARYOPHYLLENE-ALDEHYDE	Plant				--
0	SELINA-4,11-DIENE	Plant				--
9	DELTA-CADINENE	Leaf Essent. Oil				--
23	ALPHA-TERPINEOL	Plant				--
0	TERPIN-1-EN-4-OL	Leaf Essent. Oil				--
0	CIS-BETA-OCIMENE	Leaf Essent. Oil				--
1	CARYOPHYLLENE-ALCOHOL	Plant				--
0	SELINA-3,11-DIENE	Plant				--
0	INTERMEDIOL	Plant				--
5	BETA-ELEMENE	Plant				--
0	FURFURALDEHYDE	Plant				--
0	CONIFERALDEHYDE	Fruit Essent. Oil				--
0	TETRADECANE	Plant				--
15	MALIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	SABINENE	Leaf Essent. Oil				--
0	EICOSANE	Plant				--
0	1-OCTEN-3-OLE	Fruit				--
3	ALPHA-SELINENE	Leaf Essent. Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-CADINENE	Plant				--
0	HUMULENE-EPOXIDE-II	Plant				--
0	EIXOSANE	Plant				--
0	BETA-COPAENE	Plant				--
0	VALERALDEHYDE	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	CONIFERALDEHYDE	Leaf Essent. Oil				--
44	QUERCITRIN	Fruit				--
3	CIS-OCIMENE	Plant				--
0	TETRACOSANE	Plant				--
28	ALPHA-PINENE	Leaf Essent. Oil				--
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				--
0	HUMULENE-EPOXIDE-I	Plant				--
0	DODECANE	Plant				--
0	UNDECANE	Plant				--
0	OCTADECANE	Plant				--
0	BETA-CARYOPHYLLENE	Leaf Essent. Oil				--
0	QUERCETIN-3-O-BETA-D-XYLOSIDE	Fruit				--
0	3-OCTANON	Fruit				--
0	CIS-ALPHA-BERGAMOTENE	Plant				--
0	ALPHA-SANTALENE	Plant				--

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.
11	ALPHA-PHELLANDRENE	Leaf Essent. Oil				--
3	ACETONE	Plant				--
3	HEXANOL	Plant				--
0	DOCOSANE	Plant				--
0	TRIDECANE	Plant				--
0	NONADECANE	Plant				--
0	ALPHA-COPAENE	Leaf Essent. Oil				--
0	LEDOL	Plant				--
1	CIS-3-HEXENOL	Plant				--
0	ALPHA-MUUROLENE	Leaf Essent. Oil				--
0	4,8-EPOXYTERPINOLENE	Plant				--
0	HEXADECANE	Plant				--
0	DELTA-SELINENE	Plant				--
0	TRICOSANE	Plant				--
0	ALLO-AROMADENDRENE	Leaf Essent. Oil				--
53	LINALOOL	Leaf Essent. Oil				--
60	CINNAMALDEHYDE	Plant				--
0	T-MUUROLOL	Plant				--
2	ALPHA-HUMULENE	Leaf Essent. Oil				--
0	HEPTANAL	Plant				--
0	TRANS-P-MENTHA-1(10),5,DIENE-2-OL	Plant				--
60	LIMONENE	Leaf Essent. Oil				--
0	ALPHA-PALUSTRINE	Plant				--
0	ALPHA-GURJUNENE	Leaf Essent. Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	2-METHYL-BUTANOL	Plant				--
0	HEPTADECANE	Plant				--
3	AROMADENDRENE	Plant				--
22	ISOQUERCITRIN	Fruit				--
1	ISOVALERALDEHYDE	Plant				--
16	P-CYMENE	Leaf Essent. Oil				--
1	ETHYL-BENZOATE	Plant				--
3	BETA-SELINENE	Plant				--
0	10-EPIZONARENE	Plant				--
3	AR-CURCUMENE	Plant				--
8	TRANS-ANETHOLE	Plant				--
3	BETA-PHELLANDRENE	Fruit				--
0	CYCLOSATIVENE	Plant				--
16	ISOEUGENOL	Leaf Essent. Oil				--
3	CHAVICOL	Leaf				--
16	ISOEUGENOL	Plant				--
0	EPIGLOBULOL	Plant				--
13	BETA-PINENE	Plant				--
0	10-EPI-(ALPHA)-CADINOL	Plant				--
0	PENTANOL	Plant				--
5	GERANYL-ACETATE	Plant				--