

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Syzygium aromaticum*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
77	ZINC	Flower	10.0	30.0	-0.18495922224483477	--
77	ZINC	Fruit	10.0	30.0	-0.009072324700046541	--
3	XYLOSE	Essential Oil				--
28	VANILLIN	Flower				--
28	VANILLIN	Fruit				--
8	TRANS-ANETHOLE	Flower				--
8	TRANS-ANETHOLE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
31	THIAMIN	Fruit		1.0	-0.5546097657802712	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
31	THIAMIN	Flower		1.0	-1.2611424689255089	--
23	TERPINEN-4-OL	Essential Oil				--
1	TELLIMAGRANIN-II	Leaf				--
7	TELLIMAGRANIN-I	Leaf				--
7	TELLIMAGRANIN-I	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
35	TANNIN	Plant				--
1	STRICTININ	Leaf		100.0	0.09053574604251853	--
12	STIGMASTEROL	Fruit		140.0	0.7694026293001529	--
12	STIGMASTEROL	Plant				--
1	SODIUM	Flower	200.0	3250.0	1.2911423278705607	--
1	SODIUM	Fruit	200.0	3250.0	0.12424306354013467	--
7	SALICYLATES	Fruit	6.0	60.0	-0.16469419114376535	--
2	RUGOSIN-E	Leaf		975.0		--
8	RUGOSIN-D	Leaf		1925.0		--
1	RUGOSIN-A	Leaf		16.2		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	RIBOFLAVIN	Fruit	1.0	2.0	-0.6444915447424321	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	RIBOFLAVIN	Flower	1.0	2.0	-0.9879472837456319	--
7	RHAMNOCITRIN	Fruit		50.0		--
18	RHAMNETIN	Fruit				--
18	RHAMNETIN	Plant				--
176	QUERCETIN	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
1	PRODELPHINIDIN	Leaf				--
11	PROCYANIDIN	Leaf				--
14	POTASSIUM	Flower	11020.0	16200.0	-0.3149478902442045	--
14	POTASSIUM	Fruit	11020.0	16200.0	-0.15186560947876587	--
2	PHYTOSTEROLS	Fruit		2560.0	2.080091889988275	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
4	PHOSPHORUS	Fruit	1000.0	1337.0	-0.5707254381124798	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
4	PHOSPHORUS	Flower	1000.0	1337.0	-0.9975269050748918	--
9	PEDUNCULAGIN	Leaf				--
64	OLEANOLIC-ACID	Fruit	35.0	20000.0	-1.0	--
64	OLEANOLIC-ACID	Seed		7.0	-1.0	--
64	OLEANOLIC-ACID	Essential Oil		10000.0		--
64	OLEANOLIC-ACID	Flower		20000.0	1.4118875102795632	--
3	NICKEL	Flower		2.4	-0.9999999999999997	--
3	NICKEL	Fruit		2.4	-0.04957166517347313	--
1	NAPHTHALENE	Flower				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	NAPHTHALENE	Stem				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
1	NAPHTHALENE	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
1	NAPHTHALENE	Fruit		0.0		--
1	NAPHTHALENE	Essential Oil		1000.0	-1.0	--
34	MYRICETIN	Fruit		20.0	1.79780110304311	--
34	MYRICETIN	Leaf				--
3	MUCILAGE	Plant				--
21	METHYL-SALICYLATE	Fruit				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
21	METHYL-SALICYLATE	Flower				--
2	METHYL-N-AMYLKETONE	Flower				--
2	METHYL-N-AMYLKETONE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
20	METHYL-EUGENOL	Fruit		1890.0	1.0	--
20	METHYL-EUGENOL	Flower	310.0	340.0	1.0	--
20	METHYL-EUGENOL	Leaf	18.0	29.0	-0.807121771184076	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
6	METHYL-CHAVICOL	Plant				--
4	METHYL-BENZOATE	Plant				--
6	MASLINIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	MASLINIC-ACID	Flower				--
6	MASLINIC-ACID	Essential Oil		1500.0		--
14	MANGANESE	Fruit	100.0	1200.0	7.509105970380378	--
14	MANGANESE	Flower	100.0	1200.0	3.8497155611333613	--
65	MAGNESIUM	Fruit	2640.0	3020.0	0.4122435661971507	--
65	MAGNESIUM	Flower	2640.0	3020.0	0.15016470805298793	--
53	LINALOOL	Fruit		1.0	-0.5854958813390855	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
75	KAEMPFEROL	Flower				--
75	KAEMPFEROL	Fruit		29.0	-0.5731869083869251	--
5	KAEMPFERIDE	Fruit				--
22	ISOQUERCITRIN	Fruit				--
16	ISOEUGENOL	Plant				--
6	IRON	Flower	45.0	150.0	-0.11737283974721074	--
6	IRON	Fruit	45.0	150.0	0.06752138925955396	--
30	HYPEROSIDE	Fruit				--
13	GERANIAL	Fruit				--
1	GEMIN-D	Leaf	1125.0	1175.0		--
3	GAMMA-DECALACTONE	Fruit				--
62	GALLIC-ACID	Fruit	285.0	12600.0	-0.44183433468392297	--
62	GALLIC-ACID	Flower				--
1	FURFURYL-ALCOHOL	Flower				--
1	FURFURYL-ALCOHOL	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
6	FURFURAL	Plant				--
3	FLUORIDE	Fruit		2.4	0.5081285807389628	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	FIBER	Fruit	95000.0	100000.0	-0.39327836686010154	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	FIBER	Flower	95000.0	100000.0	-0.38632916081034846	--
6	FENCHONE	Fruit				--
6	EUGENYL-ACETATE	Fruit		56700.0		--
1	EUGENOL-ACETATE	Fruit				--
1	EUGENOL-ACETATE	Bark				--
76	EUGENOL	Bark				--
76	EUGENOL	Bulb				--
76	EUGENOL	Fruit				--
76	EUGENOL	Essential Oil	61000.0	627000.0	1.0627703935425195	--
76	EUGENOL	Stem	36000.0	57000.0	1.0	--
76	EUGENOL	Leaf	7920.0	26400.0	2.285513566975547	--
76	EUGENOL	Flower	108655.0	180000.0	2.6457158873560447	--
76	EUGENOL	Leaf Essent. Oil				--
5	EUGENIIN	Leaf		8950.0		--
5	EUGENIIN	Fruit		1640.0		--
2	ETHYL-CINNAMATE	Plant				--
1	ETHYL-BENZOATE	Plant				--
8	ELLAGITANNIN	Fruit		3200.0		--
51	ELLAGIC-ACID	Fruit		21.0	-0.6877437439073045	--
51	ELLAGIC-ACID	Plant				--
51	ELLAGIC-ACID	Bark				Lowry, J. B. 1968. The Distribution and Potential Taxonomic Value of Alkylated Ellagic Acids. Phytochemistry 7 10: 1803-1813
1	DELTA-CADINOL	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	DELTA-CADINOL	Leaf	8.0	13.0	-0.10787259719937864	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
9	DELTA-CADINENE	Fruit				--
9	DELTA-CADINENE	Leaf	25.0	160.0	0.23246458505780895	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
5	DAUCOSTEROL	Fruit				--
10	CUMINALDEHYDE	Fruit				--
2	CRATEGOLIC-ACID	Seed		20.0		--
12	COPPER	Flower	3.0	9.0	-0.8371161987468383	--
12	COPPER	Fruit	3.0	9.0	-0.2972270275515491	--
2	COBALT	Flower		0.7	-0.5111703686956748	--
2	COBALT	Fruit		0.7	-0.4503737361947928	--
60	CINNAMALDEHYDE	Flower		1.0	-1.0	--
60	CINNAMALDEHYDE	Fruit		1.0		--
24	CHROMIUM	Fruit	3.0	5.0	0.19465740124831715	--
24	CHROMIUM	Flower	3.0	5.0	0.9873869417794828	--
3	CHAVICOL	Flower	465.0	510.0		--
3	CHAVICOL	Fruit	465.0	510.0	-0.44569781898926136	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	CASUARICTIN	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
5	CASUARICTIN	Leaf				--
8	CARYOPHYLENE-OXIDE	Leaf	75.0	712.0	2.643842620312473	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	CARYOPHYLLENE-OXIDE	Fruit		2455.0	1.3957687820089826	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
8	CARYOPHYLLENE-OXIDE	Essential Oil				--
8	CARYOPHYLLENE-OXIDE	Plant				--
31	CARYOPHYLLENE	Essential Oil		16000.0	-0.468033109451461	--
31	CARYOPHYLLENE	Flower	74400.0	8160.0	1.4134608729490745	--
31	CARYOPHYLLENE	Fruit	7440.0	8160.0	-0.15290356778862352	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
19	CARVONE	Plant				--
2	CAMPESTEROL	Fruit				--
2	CAMPESTEROL	Plant				--
4	CALCIUM-OXALATE	Plant				--
28	CALCIUM	Flower	6460.0	9540.0	1.0428267398370916	--
28	CALCIUM	Fruit	6460.0	9540.0	1.3115758699797868	--
4	BORON	Flower	10.0	40.0	-0.011499571648933803	--
4	BORON	Fruit	10.0	40.0	0.0014459720019340586	--
7	BIFLORIN	Fruit	70.0	1022.0		--
3	BETA-TERPINEOL	Essential Oil				--
47	BETA-SITOSTEROL	Plant				--
47	BETA-SITOSTEROL	Fruit		2420.0	2.385350854149113	--
47	BETA-SITOSTEROL	Essential Oil		1000.0	-1.0	--
3	BETA-SELINENE	Fruit				--
13	BETA-PINENE	Plant				--
13	BETA-PINENE	Fruit				--
53	BETA-CAROTENE	Bark	2.0	3.0	-0.6464926691482484	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
9	BENZYL-ALCOHOL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
9	BENZYL-ACETATE	Plant				--
24	BENZALDEHYDE	Fruit				--
24	BENZALDEHYDE	Flower				--
7	ASTRAGALIN	Fruit				--
112	ASCORBIC-ACID	Bark		810.0	1.9840107880269489	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
5	ALUMINUM	Fruit	80.0	160.0	-0.17697394528100432	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	ALUMINUM	Flower	80.0	160.0	1.0835425694391705	--
1	ALPHA-ZINGIBERENE	Leaf	11.0	18.0	1.0000000000000002	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
23	ALPHA-TERPINEOL	Essential Oil				--
1	ALPHA-HUMULENE-EPOXIDE	Essential Oil		26000.0		--
2	ALPHA-HUMULENE	Leaf	290.0	1740.0	2.4875695628615198	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
2	ALPHA-HUMULENE	Essential Oil		30000.0	-0.20980400443514668	--
2	ALPHA-HUMULENE	Fruit	250.0	850.0	-0.1719773217114379	--
2	ALPHA-HUMULENE	Flower	775.0	850.0	1.881400128799953	--
3	ALPHA-CADINOL	Leaf	5.0	8.0	-0.5496266023491511	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
5	ACETYL-EUGENOL	Flower				--
5	ACETYL-EUGENOL	Fruit				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.



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6	ACETOPHENONE	Fruit				--
6	5,7-DIHYDROXY-2-METHYLCHROMONE-8-C-BETA-GLUCOPYRANOSIDE	Fruit		145.0		--
1	3,4-DIHYDROXYPHENYLETHANOL	Leaf				--
3	3,4-DIHYDROXYBENZOIC-ACID	Leaf				--
3	3,3',4-TRI-O-METHYL-ELLAGIC-ACID	Bark				Lowry, J. B. 1968. The Distribution and Potential Taxonomic Value of Alkylated Ellagic Acids. <i>Phytochemistry</i> 7 10: 1803-1813
3	3,3',4-TRI-O-METHYL-ELLAGIC-ACID	Fruit				--
4	2-UNDECANONE	Flower				--
4	2-UNDECANONE	Fruit				Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>
2	2-NONANONE	Flower		1.0		--
2	2-NONANONE	Fruit		1.0		Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>
2	1,2,3,6-TETRA-O-GALLYOL-BETA-D-GLUCOSE	Leaf		49.7		--
2	1,2,3,4,6-PENTA-O-GALLOYL-BETA-D-GLUCOSE	Leaf		33.7		--