

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Syzygium aromaticum*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CARBOHYDRATES	Bark	555000.0	612000.0	-1.3532281234725556	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	EO	Flower	155000.0	210000.0	6.568033781616922	--
0	EO	Fruit	150000.0	210000.0	3.261810506686991	--
76	EUGENOL	Flower	108655.0	180000.0	2.6457158873560447	--
15	FIBER	Flower	95000.0	100000.0	-0.38632916081034846	--
15	FIBER	Fruit	95000.0	100000.0	-0.39327836686010154	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	FAT	Flower	89000.0	201000.0	2.2590609005075395	--
0	FAT	Fruit	89000.0	201000.0	0.8939697424043467	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
31	CARYOPHYLLENE	Flower	74400.0	8160.0	1.4134608729490745	--
0	WATER	Fruit	69000.0	252000.0	-2.2548158431429384	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	WATER	Flower	69000.0	252000.0	-3.65016767114962	--
76	EUGENOL	Essential Oil	61000.0	627000.0	1.0627703935425195	--
0	PROTEIN	Flower	52000.0	70000.0	-0.8446468010457023	--
0	PROTEIN	Fruit	52000.0	70000.0	-0.5294951043049843	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	EO	Stem	40000.0	60000.0	2.6026342788799575	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
76	EUGENOL	Stem	36000.0	57000.0	1.0	--
0	EO	Leaf	20000.0	32000.0	1.8000947732230574	--
14	POTASSIUM	Fruit	11020.0	16200.0	-0.15186560947876587	--
14	POTASSIUM	Flower	11020.0	16200.0	-0.3149478902442045	--
76	EUGENOL	Leaf	7920.0	26400.0	2.285513566975547	--
31	CARYOPHYLLENE	Fruit	7440.0	8160.0	-0.15290356778862352	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
28	CALCIUM	Flower	6460.0	9540.0	1.0428267398370916	--
28	CALCIUM	Fruit	6460.0	9540.0	1.3115758699797868	--
65	MAGNESIUM	Fruit	2640.0	3020.0	0.4122435661971507	--
65	MAGNESIUM	Flower	2640.0	3020.0	0.15016470805298793	--
0	BETA-CARYOPHYLLENE	Leaf	2295.0	14520.0	6.774430907684983	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	BETA-CARYOPHYLLENE	Fruit	2230.0	69365.0	1.9999529994158691	--
1	GEMIN-D	Leaf	1125.0	1175.0		--
4	PHOSPHORUS	Flower	1000.0	1337.0	-0.9975269050748918	--
4	PHOSPHORUS	Fruit	1000.0	1337.0	-0.5707254381124798	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
2	ALPHA-HUMULENE	Flower	775.0	850.0	1.881400128799953	--
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.
20	METHYL-EUGENOL	Flower	310.0	340.0	1.0	--
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.
62	GALLIC-ACID	Fruit	285.0	12600.0	-0.44183433468392297	--
2	ALPHA-HUMULENE	Fruit	250.0	850.0	-0.1719773217114379	--
0	ALPHA-YLANGENE	Fruit	245.0	395.0	1.414158345897999	--
1	SODIUM	Fruit	200.0	3250.0	0.12424306354013467	--
1	SODIUM	Flower	200.0	3250.0	1.2911423278705607	--
0	ALPHA-TERPINYL-ACETATE	Flower	155.0	170.0		--
0	ALPHA-TERPINYL-ACETATE	Fruit	155.0	170.0	-0.7035975831753031	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
14	MANGANESE	Fruit	100.0	1200.0	7.509105970380378	--
14	MANGANESE	Flower	100.0	1200.0	3.8497155611333613	--
5	ALUMINUM	Flower	80.0	160.0	1.0835425694391705	--
5	ALUMINUM	Fruit	80.0	160.0	-0.17697394528100432	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	CARYOPHYLLENE-OXIDE	Leaf	75.0	712.0	2.643842620312473	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
7	BIFLORIN	Fruit	70.0	1022.0		--
6	IRON	Fruit	45.0	150.0	0.06752138925955396	--
6	IRON	Flower	45.0	150.0	-0.11737283974721074	--
64	OLEANOLIC-ACID	Fruit	35.0	20000.0	-1.0	--
0	STRONTIUM	Fruit	30.0	60.0	-0.10634151712424286	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	STRONTIUM	Flower	30.0	60.0		--
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.
0	ALPHA-CUBEBENE	Leaf	25.0	305.0	1.722385843588116	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	CALAMENOL	Leaf	25.0	35.0		Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	GAMMA-CADINENE	Leaf	25.0	160.0	1.3103193505890738	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	BARIUM	Fruit	20.0	30.0	0.23749286365790012	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	BARIUM	Flower	20.0	30.0		--
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.
0	HUMULENE-1,2-OXIDE	Leaf	18.0	90.0		Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	CALACORENE	Leaf	13.0	21.0	0.19023374145231275	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
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.
0	GAMMA-MUUROLENE	Leaf	11.0	18.0	-0.6643448015717212	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
4	BORON	Fruit	10.0	40.0	0.0014459720019340586	--
77	ZINC	Fruit	10.0	30.0	-0.009072324700046541	--
77	ZINC	Flower	10.0	30.0	-0.18495922224483477	--
4	BORON	Flower	10.0	40.0	-0.011499571648933803	--
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.
0	CRATAEGOLIC-ACID	Fruit	6.0	1500.0		--
7	SALICYLATES	Fruit	6.0	60.0	-0.16469419114376535	--
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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CADALENE	Leaf	5.0	8.0		Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	ALPHA-MUUROLENE	Leaf	3.3	5.5	-0.5120674670233037	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
12	COPPER	Fruit	3.0	9.0	-0.2972270275515491	--
24	CHROMIUM	Fruit	3.0	5.0	0.19465740124831715	--
12	COPPER	Flower	3.0	9.0	-0.8371161987468383	--
24	CHROMIUM	Flower	3.0	5.0	0.9873869417794828	--
53	BETA-CAROTENE	Bark	2.0	3.0	-0.6464926691482484	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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	--
0	GALLOTANNIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	ETHYL-BENZOATE	Plant				--
3	BETA-SELINENE	Fruit				--
2	METHYL-N-AMYLKETONE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
28	VANILLIN	Flower				--
0	LINALOL	Flower		1.0	-0.3900304526992942	--
1	EUGENOL-ACETATE	Bark				--
0	CUBENENE	Fruit				--
1	3,4-DIHYDROXYPHENYLETHANOL	Leaf				--
76	EUGENOL	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	RESIN	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ORSELLINIC-ACID-2-O-BETA-D-GLUCOSIDE	Seed		27.0		--
2	1,2,3,6-TETRA-O-GALLYOL-BETA-D-GLUCOSE	Leaf		49.7		--
0	CARYOPHYLLA-3(12)-7(13)-DIEN-6-ALPHA-OL	Essential Oil				--
0	TANNINS	Fruit		100000.0	0.1858330724301565	--
5	ACETYL-EUGENOL	Flower				--
0	METHYL-N-HEPTYL-KETONE	Flower				--
7	RHAMNOCITRIN	Fruit		50.0		--
5	EUGENIIN	Leaf		8950.0		--
7	ASTRAGALIN	Fruit				--
47	BETA-SITOSTEROL	Plant				--
0	4,4-DIMETHYLTRICYCLO[6,3,2,0]TRIDECA-8-ENE-1-OL	Essential Oil				--
1	ALPHA-HUMULENE-EPOXIDE	Essential Oil		26000.0		--
0	EUGENINE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	EPOXYDIHYDROCARYOPHYLLENE	Plant				--
0	ALPHA-YLANGENE	Plant				--
0	SALICYLIC ACID BENZYL ESTER	Fruit				--
0	METHYL-ALCOHOL	Fruit				Wealth of India.
8	TRANS-ANETHOLE	Flower				--
75	KAEMPFEROL	Flower				--
76	EUGENOL	Bulb				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CRATAEGOLIC ACID METHYL ESTER	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	1-BETA-O-GALLOYLPEDUNCULAGIN	Leaf		114.5		--
64	OLEANOLIC-ACID	Seed		7.0	-1.0	--
2	1,2,3,4,6-PENTA-O-GALLOYL-BETA-D-GLUCOSE	Leaf		33.7		--
0	BENZOIC-ACID-PROPYL-ESTER	Fruit				--
0	CARYOPHYLLA-3(12)-6-DIEN-4-OL	Essential Oil				--
8	CARYOPHYLLENE-OXIDE	Plant				--
4	2-UNDECANONE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	2ALPHA-HYDROXYOLEANOLIC-ACID-METHYL-ESTER	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
2	METHYL-N-AMYLKETONE	Flower				--
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.)
5	EUGENIIN	Fruit		1640.0		--
0	ARABINOSE	Essential Oil				--
13	BETA-PINENE	Plant				--
0	ALPHA-THUJENE	Fruit				--
0	EPOXYDIHYDROCARYOPHYLLENE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	RUGOSIN-D	Leaf		1925.0		--
75	KAEMPFEROL	Fruit		29.0	-0.5731869083869251	--
31	THIAMIN	Flower		1.0	-1.2611424689255089	--
16	ISOEUGENOL	Plant				--
0	CONIFERALDEHYDE	Stem				--
9	PEDUNCULAGIN	Leaf				--
51	ELLAGIC-ACID	Bark				Lowry, J. B. 1968. The Distribution and Potential Taxonomic Value of Alkylated Ellagic Acids. Phytochemistry 7 10: 1803-1813
1	PRODELPHINIDIN	Leaf				--
0	GALLIC ACID 3-O-BETA-D-(6'-O-GALLOYL)-GLUCOSIDE	Leaf		2.5		--
24	BENZALDEHYDE	Fruit				--
0	CAMPESTEROL-3-O-BETA-D-GLUCOSIDE	Fruit				--
12	STIGMASTEROL	Fruit		140.0	0.7694026293001529	--
31	CARYOPHYLLENE	Essential Oil		16000.0	-0.468033109451461	--
4	2-UNDECANONE	Flower				--
1	NAPHTHALENE	Stem				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
6	ACETOPHENONE	Fruit				--
0	ALPHA-CUBEBENE	Fruit		37800.0	2.0783973463880634	--
0	BETA-CARYOPHYLLENE	Flower				--
3	BETA-TERPINEOL	Essential Oil				--
2	ALPHA-HUMULENE	Essential Oil		30000.0	-0.20980400443514668	--
8	TRANS-ANETHOLE	Fruit				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	CUBENOL	Leaf				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	METHYL-FURFURYL-ALCOHOL	Plant				--
51	ELLAGIC-ACID	Plant				--
0	ALPHA-MUUROLENE	Plant				--
1	RUGOSIN-A	Leaf		16.2		--
35	TANNIN	Plant				--
0	ALPHA-COPAENE	Leaf		1135.0	6.3964083212247616	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	ISOEUGENITENE	Plant				--
51	ELLAGIC-ACID	Fruit		21.0	-0.6877437439073045	--
0	CONIFERALDEHYDE	Leaf				--
0	PALMITIC-ACID-METHYL-ESTER	Fruit				--
0	PALUSTROL	Fruit				--
0	5-METHYLFURALDEHYDE	Fruit				--
1	DELTA-CADINOL	Fruit				--
0	CAMPESTEROL-GLUCOSIDE	Plant				--
0	2-NONYL-ACETATE	Flower		1.0		--
1	NAPHTHALENE	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
8	ELLAGITANNIN	Fruit		3200.0		--
28	VANILLIN	Fruit				--
0	ALPHA-COPAENE	Fruit		1890.0	1.8816304622249802	--
23	ALPHA-TERPINEOL	Essential Oil				--
0	HEXAN-2-ONE	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DIMETHYL-FURFURAL	Plant				--
0	ALPHA-METHYL-FURFURYL	Plant				--
22	ISOQUERCITRIN	Fruit				--
0	HUMULENE-EPOXIDE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	STYRALYL-ACETATE	Flower		1.0		--
2	CRATEGOLIC-ACID	Seed		20.0		--
0	CASUARIIN	Leaf		9.7		--
8	CARYOPHYLLENE-OXIDE	Essential Oil				--
0	PALUSTROL	Leaf				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	PHENYLETHYL-ACETATE	Flower		1.0	-1.1565845346367642	--
0	NONAN-2-ONE	Fruit				--
0	FURALDEHYDE	Fruit				--
0	GAMMA-CADINENE	Fruit				--
0	HUMULENE-EPOXIDE	Flower				--
2	CAMPESTEROL	Plant				--
20	METHYL-EUGENOL	Fruit		1890.0	1.0	--
2	2-NONANONE	Flower		1.0		--
64	OLEANOLIC-ACID	Essential Oil		10000.0		--
1	NAPHTHALENE	Fruit		0.0		--
0	3,3'-DI-O-METHYL-ELLAGIC-ACID	Bark				Lowry, J. B. 1968. The Distribution and Potential Taxonomic Value of Alkylated Ellagic Acids. Phytochemistry 7 10: 1803-1813
0	STYRALYL-ACETATE	Fruit		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
6	5,7-DIHYDROXY-2-METHYLCHROMONE-8-C-BETA-GLUCOPYRANOSIDE	Fruit		145.0		--
0	BENZYL-TIGLATE	Plant				--
23	TERPINEN-4-OL	Essential Oil				--
0	HEXAN-2-ONE	Essential Oil				--
0	ALPHA-AMORPHENE	Fruit		1.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	CARYOPHYLLENE-OXIDE	Fruit		2455.0	1.3957687820089826	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
6	METHYL-CHAVICOL	Plant				--
0	CRATAEGOLIC-ACID	Flower		6.0		--
0	QUERCETIN-3,4'-DI-O-BETA-D-GLUCOSIDE	Fruit				--
0	ALLO-AROMADENDRENE	Leaf				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
5	CASUARICTIN	Leaf				--
0	10-(ALPHA)-CADINOL	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	BETA-CARYOPHYLLENE	Essential Oil		495000.0	2.8069272425728666	--
64	OLEANOLIC-ACID	Flower		20000.0	1.4118875102795632	--
30	HYPEROSIDE	Fruit				--
3	FLUORIDE	Fruit		2.4	0.5081285807389628	--
9	DELTA-CADINENE	Fruit				--
0	HUMULEN-7-OL	Flower				--
4	CALCIUM-OXALATE	Plant				--
0	2-NONANOL	Plant				--
0	OCTAN-2-ONE	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
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
18	RHAMNETIN	Fruit				--
0	EUGENITINE	Flower				--
0	5,7-DIHYDROXY-2-METHYLCHROMONE-8-C-BETA-D-GLUCOSIDE	Leaf		66.0		--
9	BENZYL-ALCOHOL	Plant				--
1	TELLIMAGRANIN-II	Leaf				--
0	HEXAN-1-AL	Fruit				--
4	METHYL-BENZOATE	Plant				--
34	MYRICETIN	Fruit		20.0	1.79780110304311	--
0	ALPHA-CUBEBENE	Flower				--
176	QUERCETIN	Fruit				Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	HUMULEN-7-OL	Fruit				Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>
0	STIGMASTEROL-GLUCOSIDE	Plant				--
0	QUERCITRIN-3,4'-DI-O-GLYCOSIDE	Fruit				--
0	CIS-ISOEUGENOL	Fruit				--
0	CARYOPHYLLINE	Fruit				--
5	ACETYL-EUGENOL	Fruit				Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	CORNUS-TANNIN-2	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-CARYOPHYLLENE	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.
0	LEDOL	Leaf				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
3	NICKEL	Flower		2.4	-0.9999999999999997	--
0	HEPTAN-2-ONE	Fruit				--
6	FENCHONE	Fruit				--
3	3,4-DIHYDROXYBENZOIC-ACID	Leaf				--
0	GAMMA-CARYOPHYLLENE	Plant				--
2	2-NONANONE	Fruit		1.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	NICKEL	Fruit		2.4	-0.04957166517347313	--
0	2-HEPTYL-BENZOATE	Flower				--
34	MYRICETIN	Leaf				--
0	3'-O-METHYL-3-4-METHYLENEDIOXY-ELLAGIC ACID	Bark				Lowry, J. B. 1968. The Distribution and Potential Taxonomic Value of Alkylated Ellagic Acids. Phytochemistry 7 10: 1803-1813
0	2-NONYL-ACETATE	Fruit		1.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	EUGENINE	Flower				--
0	5,7-DIHYDROXY-2-METHYLCHROMONE-8-C-BETA-D-GLUCOPYRANOSIDE	Fruit		143.0		--
9	BENZYL-ACETATE	Plant				--
7	TELLIMAGRANIN-I	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-MUUROLENE	Fruit				--
0	6-METHYL-HEPT-5-EN-2-ONE	Fruit				--
19	CARVONE	Plant				--
0	METHYL-ALCOHOL	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.
0	EUGENITINE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-COPAENE	Flower				--
0	PTEROCARININ A	Leaf		21.5		--
0	2-HEPTYL-ACETATE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
12	STIGMASTEROL	Plant				--
0	MASLIC-ACID	Fruit		1500.0		--
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.
0	BETA-CARYOPHYLLENE-OXIDE	Essential Oil		45000.0		--
6	MASLINIC-ACID	Essential Oil		1500.0		--
1	NAPHTHALENE	Flower				--
47	BETA-SITOSTEROL	Essential Oil		1000.0	-1.0	--
0	EUGENOL-4-O-BETA-D(6'-O-GALLOYL)-GLUCOSIDE	Leaf		215.0		--
0	BENZOIC-ACID-METHYL-ESTER	Fruit				--
0	GALLOTANNIC-ACID	Plant				--
0	CALAMENENE	Flower				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PHENYLETHYL-ACETATE	Fruit		1.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	2-HEPTYL-ACETATE	Flower				--
0	GAMMA-MUUROLENE	Fruit				--
2	CAMPESTEROL	Fruit				--
3	GAMMA-DECALACTONE	Fruit				--
1	NAPHTHALENE	Essential Oil		1000.0	-1.0	--
0	ETHYL-OCTANOATE	Plant				--
3	3,3',4-TRI-O-METHYL-ELLAGIC-ACID	Fruit				--
24	BENZALDEHYDE	Flower				--
1	STRICTININ	Leaf		100.0	0.09053574604251853	--
0	METHYL-N-HEPTYL-KETONE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	2-3-HEXAHYDROXY-DIPHENOYL-GLUCOSE	Leaf				--
0	ZONARENE	Flower		1.0		--
6	MASLINIC-ACID	Flower				--
0	ISOBIFLORIN	Fruit		510.0		--
2	COBALT	Fruit		0.7	-0.4503737361947928	--
0	ALPHA-CARYOPHYLLENE	Flower				--
11	PROCYANIDIN	Leaf				--
0	2-HEPTANOL	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	SYZYGININ-B	Leaf		131.0		--
0	CALAMENENE	Fruit		1265.0	-0.17527372328420673	--
0	CARYOPHYLLA-4(12)-8(13)-DIEN-5-BETA-OL	Essential Oil				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ZONARENE	Fruit		1.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	COBALT	Flower		0.7	-0.5111703686956748	--
0	HUMULENE-1,2-OXIDE	Fruit		95.0		Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
3	MUCILAGE	Plant				--
0	TRANS-ISOEUGENOL	Fruit				--
76	EUGENOL	Leaf Essent. Oil				--
0	BENZOIC-ACID-ETHYL-ESTER	Fruit				--
62	GALLIC-ACID	Flower				--
0	CALACORENE	Flower				--
53	LINALOOL	Fruit		1.0	-0.5854958813390855	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	2-HEPTANONE	Plant				--
0	BETA-MUJOLENE	Fruit				--
0	CALAMENENE	Leaf		210.0	3.8695166003766976	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
0	ETHYL-HEXANOATE	Plant				--
0	STIGMASTEROL-3-O-BETA-D-GLUCOSIDE	Fruit				--
0	METHYL-FURFURYL-ALCOHOL	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
13	GERANIAL	Fruit				--
6	EUGENYL-ACETATE	Fruit		56700.0		--
5	DAUCOSTEROL	Fruit				--
60	CINNAMALDEHYDE	Fruit		1.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALPHA-CADINENE	Flower				--
13	BETA-PINENE	Fruit				--
1	FURFURYL-ALCOHOL	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	SYZYGININ-A	Leaf		98.0		--
0	CARYOPHYLLA-3-8(13)-DIEN-5-BETA-OL	Essential Oil				--
31	THIAMIN	Fruit		1.0	-0.5546097657802712	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
60	CINNAMALDEHYDE	Flower		1.0	-1.0	--
21	METHYL-SALICYLATE	Flower				--
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.
76	EUGENOL	Bark				--
0	BENZOIC ACID BENZYL ESTER	Fruit				--
1	FURFURYL-ALCOHOL	Flower				--
3	XYLOSE	Essential Oil				--
0	2-HEPTANOL	Flower				--
0	LINOLEIC-ACID-METHYL-ESTER	Fruit				--
0	CALACORENE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	2-HEPTYL-BENZOATE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	ETHYL-CINNAMATE	Plant				--
112	ASCORBIC-ACID	Bark		810.0	1.9840107880269489	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	STEARIC ACID METHYL ESTER	Fruit				--
0	ALPHA-METHYL-FURFURYL	Fruit				Wealth of India.
0	BETA-BOURBONENE	Leaf				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
1	EUGENOL-ACETATE	Fruit				--
10	CUMINALDEHYDE	Fruit				--
0	ALPHA-AMORPHENE	Flower		1.0		--
0	PHTHALIC ACID DIBUTYL DIESTER	Essential Oil				--
18	RHAMNETIN	Plant				--
2	RUGOSIN-E	Leaf		975.0		--
0	2-3-DI-O-GALLOYL-GLUCOSE	Leaf		214.5		--
47	BETA-SITOSTEROL	Fruit		2420.0	2.385350854149113	--
0	CARYOPHYLLA-3(8)-13-DIEN-5-ALPHA-OL	Essential Oil				--
0	METHYL-OCTANOATE	Plant				--
0	1-DEGALLOYL-EUGENIIN	Leaf		12175.0	1.0	--
0	3-METHOXYBENZALDEHYDE	Fruit				--
6	FURFURAL	Plant				--
0	BETA-SITOSTEROL-GLUCOSIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	VALONEIC ACID BISLACTONE	Leaf		180.0		--
0	10-(ALPHA)-CADINOL	Flower				--
5	KAEMPFERIDE	Fruit				--
0	ALPHA-CADINENE	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.