

**Dr. Duke's Phytochemical and Ethnobotanical Database**

**List of Plants for EUGENOL**

<b>Plant</b>	<b>Part</b>	<b>Low PPM</b>	<b>High PPM</b>	<b>StdDev</b>	<b>Reference</b>
Acacia farnesiana	Flower	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Achillea millefolium	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
Acorus calamus	Rhizome	30	300	-0.7161913723160901	--
Agastache rugosa	Shoot	--	--		Jim Duke's personal files.
Agathosma betulina	Leaf Essent. Oil	--	--		--
Ageratum conyzoides	Shoot	--	800	0.15379660495713438	R. Vera, (1993); Chemical composition of the essential oil Ageratum conyzoides L. (Asteraceae) from Reunion, Flavour Fragr. J., Vol.8, 257-260.
Aloysia citrodora	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Alpinia galanga	Rhizome	100	12000	1.414174489403805	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Alpinia officinarum	Rhizome	90	400	-0.6979831170877149	--
Anethum graveolens	Plant	--	--		--
Anethum graveolens	Leaf	280	750	-0.7280702362058284	--
Anethum graveolens	Essential Oil	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Apium graveolens</i>	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
<i>Apium graveolens</i>	Seed Essent. Oil	--	--		--
<i>Artemisia capillaris</i>	Essential Oil	--	--		--
<i>Artemisia dracunculus</i>	Shoot	--	--		--
<i>Artemisia dracunculus</i>	Essential Oil	--	--		--
<i>Artemisia dracunculus</i>	Shoot Essent. Oil	--	--		--
<i>Aspalathus linearis</i>	Leaf Essent. Oil	--	13600	-1.0138787287413815	--
<i>Boronia megastigma</i>	Flower	--	--		--
<i>Calamintha nepeta</i>	Shoot	8	8	-0.4868241109724222	Kirimer, N., Baser, K.H.C., Ozek, T. and Kurkcuoglo, M. 1992. Composition of the Essential Oil of <i>Calamintha nepeta</i> subsp. <i>glandulosa</i> . J. Ess. Oil Res. 4:189-190
<i>Camellia sinensis</i>	Fruit	--	--		--
<i>Camellia sinensis</i>	Fruit Essent. Oil	--	--		--
<i>Cananga odorata</i>	Flower	--	--		--
<i>Capsicum annuum</i>	Fruit	--	--		--
<i>Cinnamomum aromaticum</i>	Plant	--	--		--
<i>Cinnamomum aromaticum</i>	Bark	1.8	375	-0.690064810647921	--
<i>Cinnamomum aromaticum</i>	Leaf	2.8	400	-0.7691912627599603	--
<i>Cinnamomum camphora</i>	Plant	--	--		--
<i>Cinnamomum verum</i>	Bark	140	3520	1.4140777354335337	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Cinnamomum verum	Leaf	1400	16800	1.1576225529193598	Wealth of India.
Cinnamomum verum	Essential Oil	--	--		--
Cinnamomum verum	Leaf Essent. Oil	701000	945000	1.556183816708286	--
Cinnamomum verum	Bark Essent. Oil	61000	420000		--
Cinnamomum verum	Stem Bark	--	--		--
Cinnamomum verum	Root Bark	--	--		--
Cistus ladaniferus	Leaf	15	1050	-0.6928236420165726	--
Coffea arabica	Seed	--	--		Jim Duke's personal files.
Commiphora myrrha	Resin, Exudate, Sap	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Commiphora myrrha	Essential Oil	--	2300	-0.7044431236377617	Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Croton eluteria	Bark	--	--		--
Croton lechleri	Plant	--	--		Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Cuminum cyminum	Fruit	--	--		--
Cuminum cyminum	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Curcuma longa	Essential Oil	--	2100	-0.7050089035376114	--
Curcuma longa	Rhizome Essent. Oil	--	2100		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Curcuma longa	Tuber	--	--		--
Cymbopogon winterianus	Plant	66	233	-0.4917732620412083	--
Cynara cardunculus	Essential Oil	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Daucus carota	Seed	7000	7000	1.3881489891384902	--
Dianthus caryophyllus	Flower	0.6	870	-0.36790032586332355	--
Drimys winteri	Bark	--	--		--
Elsholtzia blanda	Shoot	0.9	0.9	-0.4925670492086593	Bestman, H.J., Rauscher, J., Vostrowsky O., Pant, A.K., Dev. V., Perihar, R. and Mathela, C.S. 1992. Constituents of the Essential Oil of Elsholtzia blanda Benth. (Labiatae). J. Ess. Oils Res. 4: 121-124
Ephedra sinica	Shoot	--	4	-0.49005956913368254	--
Eucalyptus brassiana	Leaf	--	0	-0.8161867216789681	Singh, A. K., Gupta, K. C., & Brophy, J. J. 1991. Chemical Constituents of the Leaf Essential Oil of Eucalyptus brassiana S. T. Blake. Journal of Essential Oil Res. 3: 45-7.
Eucalyptus citriodora	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Eucalyptus citriodora	Essential Oil	--	--		--
Ficus carica	Fruit	--	--		--
Ficus carica	Flower	--	--		--
Foeniculum vulgare	Root Essent. Oil	--	2000		Jim Duke's personal files.
Foeniculum vulgare	Sprout Seedling	--	--		Jim Duke's personal files.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Glycyrrhiza glabra	Root	1	1		--
Helianthus annuus	Flower	--	--		--
Helichrysum angustifolium	Plant	--	--		--
Hibiscus sabdariffa	Calyx	--	--		--
Humulus lupulus	Essential Oil	--	--		--
Hyacinthus orientalis	Flower	0.32	4.6	-0.38245949222808684	--
Hyssopus officinalis	Flower	62	624	-0.37203893797995374	Flavour and Fragrance Journal, 6: 72.
Hyssopus officinalis	Leaf	2	443	-0.764139250926167	--
Hyssopus officinalis	Essential Oil	--	--		--
Iris x germanica	Rhizome	--	--		--
Jasminum officinale	Flower	3	10	-0.38236864464503884	--
Juglans regia	Leaf	10	30	-0.8126620622600426	--
Lantana camara	Leaf	--	--		--
Laurus nobilis	Leaf	18	1335	-0.6593393775367795	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Laurus nobilis	Essential Oil	--	--		--
Laurus nobilis	Leaf Essent. Oil	--	10200	-1.023260533180429	--
Lavandula latifolia	Plant	0	9	-0.613686380599408	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Lavandula x intermedia	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Levisticum officinale	Root	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Ligustrum japonicum	Flower	--	--		--
Lonicera japonica	Flower	--	--		Schlotzhauer, W.S., S.D. Pair, and R.J. Horvat. 1996. Volatile constituents from the flowers of Japanese Honeysuckle. J. Agric. Food Chem. 44:206-209.
Lycopersicon esculentum	Fruit	--	--		--
Magnolia kobus	Flower	--	--		--
Melaleuca bracteata	Leaf	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Melaleuca viridiflora	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Melia azedarach	Wood	--	--		--
Melissa officinalis	Shoot	--	--		--
Mentha arvensis var. piperascens	Essential Oil	--	--		Jim Duke's personal files.
Mentha longifolia	Shoot	--	--		--
Mentha pulegium	Plant	160	320	-0.44442307760119315	--
Mentha pulegium	Essential Oil	--	16000	-0.665687200498063	--
Mentha spicata	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Mentha spicata	Shoot	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Mentha spicata	Essential Oil	--	--		--
Mentha x piperita	Essential Oil	--	--		--
Micromeria congesta	Leaf	5	15	-0.8144243919695053	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of Micromeria congesta. J. Ess. Oil Res., 3: 387-393.
Micromeria fruticosa	Shoot	0	0	-0.49329502729494296	Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of Micromeria fruticosa (L.) Druce subsp. barbata (Boiss et. Ky.), P.H. Davis. Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res 3: 477-479.
Micromeria fruticosa	Shoot	--	0	-0.49329502729494296	Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of Micromeria fruticosa (L.) Druce subsp. barbata (Boiss et. Ky.), P.H. Davis. Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res 3: 477-479.
Micromeria myrtifolia	Shoot	0	0	-0.49329502729494296	Ozek, T., Kirimer, N., and Baser, K.H.C. 1992. Composition of the Essential Oil of Micromeria myrtifolia Boiss. et Hohen. J. Ess. Oil Res., 4: 79-80.
Morinda citrifolia	Fruit	--	0.01	-0.7071070758144754	--
Morus alba	Plant	--	--		--
Myristica fragrans	Seed	40	320	-0.9281295905730291	--
Myristica fragrans	Essential Oil	2000	3000	-0.7024628939882881	--
Myristica fragrans	Seed Essent. Oil	1000	38000		--
Myroxylon balsamum	Plant	--	--		--
Myrtus communis	Shoot	1	15	-0.4811620591902165	--
Narcissus tazetta	Flower	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Nicotiana tabacum	Leaf	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Ocimum basilicum	Leaf	14	8575	0.19127842889726174	--
Ocimum basilicum	Plant	--	14	-0.6109651056315911	--
Ocimum basilicum	Essential Oil	300	857500	1.714831728119204	--
Ocimum basilicum	Shoot Essent. Oil	5700	26700		--
Ocimum basilicum	Leaf Essent. Oil	51200	270000	-0.30638029986732646	--
Ocimum canum	Shoot	--	--		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
Ocimum gratissimum	Plant	0	5340	2.2877369900870366	--
Ocimum gratissimum	Seed	1670	1670	-0.4600193985654616	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Ocimum gratissimum	Shoot	4045	4045	2.778562038279623	Vostrowsky, O., Garbe, W., Bestmann, H.J. and Maia, J.G.S. 1990. Essential Oil of Alfavaca, Ocimum gratissimum, from Brazilian Amazon. Zeitschr. Naturforschung 45(C): 1073-6.
Ocimum kilimandscharicum	Flower	0	35	-0.38194805398277965	Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of Ocimum killimandscharicum Guerke. J. Ess. Oil Res., 4: 125-128.
Ocimum kilimandscharicum	Shoot	0	3000	1.9332985936503468	Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of Ocimum killimandscharicum Guerke. J. Ess. Oil Res., 4: 125-128.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Ocimum sanctum	Leaf	4200	4970	-0.23226814461029613	Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Ocimum sp	Plant	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Ocimum suave	Shoot	110	2860	1.8200575580062333	J. Nat. Prod. 44: 308.
Ocimum tenuiflorum	Inflorescence	0	0		--
Ocimum tenuiflorum	Leaf	45	5580	-0.16060006975880922	--
Ocimum tenuiflorum	Stem	20	100	-1	--
Oenanthe javanica	Shoot	--	--		--
Origanum majorana	Plant	200	1152	0.46992531158530604	--
Origanum majorana	Leaf Essent. Oil	--	255000	-0.34777061356900674	--
Origanum minutiflorum	Shoot	55	125	-0.39218695975555584	Baser, K.H.C., Tumen, G., Sezik, E. 1991. The Essential Oil of Origanum minutiflorum O. Schwarz and P.H. Davis. J. Ess. Oil Res. 3: 445-446.
Origanum onites	Shoot	0	0	-0.49329502729494296	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Frag. J. 8: 331-7.
Origanum vulgare	Shoot	--	--		--
Panax ginseng	Root Essent. Oil	--	--		--
Pelargonium graveolens	Essential Oil	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Peumus boldus	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Pimenta dioica	Fruit	3500	36000	1.4142135623730538	--
Pimenta dioica	Leaf	8348	12000	0.593677045891266	--
Pimenta dioica	Leaf Essent. Oil	--	792400	1.1351063586498586	--
Pimenta dioica	Flower Essent. Oil	--	543000		--
Pimenta racemosa	Leaf	16	19100	1.749765335298858	--
Pimpinella anisum	Plant	--	--		--
Pimpinella anisum	Seed Essent. Oil	--	--		--
Pimpinella anisum	Essential Oil	--	--		--
Pimpinella anisum	Seed	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Piper auritum	Leaf	--	--		Tramil
Piper betel	Leaf	535	17850	1.2809856325817552	--
Piper nigrum	Fruit	--	--		--
Piper nigrum	Leaf Essent. Oil	--	--		--
Pogostemon cablin	Plant	--	--		--
Polianthes tuberosa	Flower	--	--		--
Prunus cerasus	Plant	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Prunus dulcis	Flower	--	--		--
Psidium guajava	Essential Oil	--	--		--
Ptychopetalum olacoides	Root	--	--		Ito, Y., Hirayama, F., Aikawa, Y., Kondo, H., Sagara, K., Shoji, J. 1995. Constituents from Muira-Puama (The Roots of Ptychopetalum olacoides). Nat. Med. 49, 4: 487.
Pueraria montana	Fruit Essent. Oil	--	--		--
Pycnanthemum setosum	Shoot	60	93	-0.41807062504563897	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Ravensara aromatica	Bark	--	110	-0.7240129247856127	--
Ravensara aromatica	Leaf	--	60	-0.8091374028411169	--
Rosa centifolia	Essential Oil	--	--		--
Rosa damascena	Essential Oil	--	--		--
Rosa gallica	Flower	2	4	-0.38246958640398104	--
Rosmarinus officinalis	Shoot	--	0.5	-0.4928905950247854	Tucker, A. O. and Maciarelo, M. J. 1998. The essential oils of some rosemary cultivars. Flavor and Fragrance Journal, 1: 137-142. 1986.
Santalum album	Wood	--	--		--
Sassafras albidum	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Scutellaria baicalensis	Root Essent. Oil	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Stevia rebaudiana	Flower	--	--		Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp.
Stevia rebaudiana	Leaf	--	--		Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp.
Syzygium aromaticum	Flower	108655	180000	2.6457158873560447	--
Syzygium aromaticum	Leaf	7920	9000	2.285513566975547	--
Syzygium aromaticum	Stem	36000	9000	1	--
Syzygium aromaticum	Fruit	--	--		--
Syzygium aromaticum	Bark	--	--		--
Syzygium aromaticum	Leaf Essent. Oil	--	--		--
Syzygium aromaticum	Essential Oil	61000	627000	1.0627703935425195	--
Syzygium aromaticum	Bulb	--	--		--
Tanacetum parthenium	Fruit Essent. Oil	--	1000		--
Tanacetum parthenium	Essential Oil	--	--		--
Thymus capitatus	Shoot	21	21	-0.47630887194832594	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Frag. J. 8: 331-7.
Thymus cilicicus	Shoot	0.1	0.1	-0.49321414084091153	Tumen, G., Koyuncu, M., Kirimer, N., and Baser, K.H.C. 1994. Composition of the Essential Oil of Thymus cilicicus Boiss. & Bal. J. Ess. Oil Res. 6: 97-8.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Thymus funkii	Shoot	5	5	-0.48925070459336745	Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. Flav. & Fragr. J. 10(6): 379-383.
Thymus funkii	Shoot	--	--		Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. Flav. & Fragr. J. 10(6): 379-383.
Thymus vulgaris	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
Tilia sp.	Flower	--	--		--
Trifolium pratense	Flower	--	--		--
Umbellularia californica	Plant	10	40	-0.5968144757989429	--
Vaccinium corymbosum	Fruit	0.02	0.02	-0.7071064865585788	--
Vaccinium macrocarpon	Fruit	--	--		--
Vaccinium myrtillus	Fruit Juice	0.01	0.01		--
Vanilla planifolia	Fruit	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Viola odorata	Flower	147	357	-0.37653084625288163	--
Viola odorata	Leaf	--	--		--
Zea mays	Seed	--	--		--
Zingiber officinale	Rhizome Essent. Oil	--	--		--