

# C ETHANOL

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ETHANOL

ubiquitous

Yes

\*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Abelmoschus esculentus</i>	Fruit	--	--		Wealth of India.
<i>Acorus calamus</i>	Rhizome	--	--		--
<i>Allium cepa</i>	Bulb	--	--		--
<i>Angelica archangelica</i>	Root	--	--		--
<i>Annona muricata</i>	Plant	--	--		--
<i>Artemisia pallens</i>	Plant	--	--		--
<i>Boronia megastigma</i>	Flower	--	--		--
<i>Brassica oleracea</i> var. <i>botrytis</i> l. Plant	Plant	--	--		--
<i>Brassica oleracea</i> var. <i>botrytis</i> l. Flower	Flower	--	--		--
<i>Brassica oleracea</i> var. <i>italica</i>	Plant	--	--		Jim Duke's personal files.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Carica papaya</i>	Fruit	--	--		Jim Duke's personal files.
<i>Chrysanthemum x morifolium</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Citrullus lanatus</i>	Fruit Juice	--	--		--
<i>Citrus aurantium</i>	Plant	--	--		--
<i>Citrus mitis</i>	Fruit Juice	11	11	-1	--
<i>Citrus reticulata</i>	Fruit	0	183	-1	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Citrus sinensis</i>	Fruit Juice	64	900	1	--
<i>Cucumis melo</i>	Petiole	--	--		--
<i>Cymbopogon nardus</i>	Plant	75	300		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Datura stramonium</i>	Plant	--	--		--
<i>Daucus carota</i>	Root	--	--		--
<i>Ephedra sinica</i>	Shoot	--	2	-0.4494207779171692	--
<i>Eucalyptus globulus</i>	Leaf	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
<i>Ficus carica</i>	Fruit	--	--		--
<i>Glycine max</i>	Plant	--	--		--
<i>Hibiscus sabdariffa</i>	Fruit	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)

Plant	Part	Low PPM	High PPM	StdDev	Reference
Hibiscus sabdariffa	Leaf	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
Hibiscus sabdariffa	Seed	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
Liquidambar orientalis	Resin, Exudate, Sap	--	--		--
Liquidambar styraciflua	Resin, Exudate, Sap	--	--		--
Lycopersicon esculentum	Fruit	--	--		--
Malus domestica	Plant	--	--		--
Mentha spicata	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Mentha spicata	Essential Oil	--	--		--
Micromeria congesta	Leaf	1	35		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 myrtifolia	Shoot	0.1	0.1	-0.4695836935734295	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.
Nepeta racemosa	Shoot	1	1	-0.4600328387888851	Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of Nepeta racemosa Lam. J. Ess. Oil Res. 5: 215-7.
Nepeta racemosa	Shoot	--	1	-0.4600328387888851	Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of Nepeta racemosa Lam. J. Ess. Oil Res. 5: 215-7.
Nicotiana tabacum	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Origanum minutiflorum</i>	Shoot	0.1	7	-0.3963604735585896	Baser, K.H.C., Tumen, G., Sezik, E. 1991. The Essential Oil of <i>Origanum minutiflorum</i> O. Schwarz and P.H. Davis. <i>J. Ess. Oil Res.</i> 3: 445-446.
<i>Panax ginseng</i>	Shoot	--	--	--	--
<i>Pelargonium graveolens</i>	Essential Oil	--	--	--	--
<i>Petroselinum crispum</i>	Plant	--	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Petroselinum crispum</i>	Leaf	--	--	--	--
<i>Prunus persica</i>	Fruit	--	--	--	--
<i>Psidium guajava</i>	Fruit	--	258000	1	--
<i>Rheum palmatum</i>	Rhizome	--	0.5	--	--
<i>Ribes nigrum</i>	Fruit	--	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Rosa damascena</i>	Essential Oil	--	--	--	--
<i>Rosmarinus officinalis</i>	Plant	--	--	--	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Rosmarinus officinalis</i>	Resin, Exudate, Sap	--	--	--	--
<i>Rubus idaeus</i>	Plant	--	--	--	--
<i>Satureja cuneifolia</i>	Shoot	255	255	2.235430622626959	Tumen, G. 1991. The Volatile Constituents of <i>Satureja cuneifolia</i> . <i>J. Ess. Oil Res.</i> , 3: 365-366.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Telosma cordata</i>	Flower	3283	3283		K. Furukawa, T. Arai, S. Hashimoto, (1993); Volatile components of <i>Telosma cordata</i> Merrill flowers, Flavour Fragr. J., Vol 8, 221-223.
<i>Zea mays</i>	Silk Stigma Style	--	--	--	