

C ACETIC-ACID

Chemid

ACETICACID

*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 moschatus</i>	Plant	--	--	--	
<i>Abelmoschus moschatus</i>	Seed	--	--	--	Wealth of India.
<i>Acacia decurrens</i>	Plant	--	--	--	
<i>Acacia melanoxylon</i>	Plant	--	--	--	
<i>Acinos suaveolens</i>	Shoot	100	100	--	Jim Duke's personal files.
<i>Actaea racemosa</i>	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.
<i>Aesculus hippocastanum</i>	Seed	--	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Akebia quinata</i>	Seed	--	--	--	
<i>Allium cepa</i>	Bulb	--	--	--	Wilkens, W. F. 1964. Isolation and Identification of the Lachrymogenic Compound of Onion. Cornell Univ., Agr. Expt. Sta. Mem. No., 385: 31 pp.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Aloysia citrodora</i>	Plant	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
<i>Anamirta cocculus</i>	Fruit	--	--		--
<i>Ananas comosus</i>	Fruit	0.49	0.49	-0.6429596690411867	--
<i>Apium graveolens</i>	Plant	--	--		--
<i>Arctium lappa</i>	Plant	--	--		--
<i>Aspalathus linearis</i>	Plant	--	--		--
<i>Astragalus gummifer</i>	Gum	25000	25000		--
<i>Avena sativa</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Borago officinalis</i>	Plant	--	--		--
<i>Borago officinalis</i>	Leaf	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Camellia sinensis</i>	Plant	--	--		--
<i>Cananga odorata</i>	Flower	--	--		--
<i>Capsicum annuum</i>	Fruit	--	--		--
<i>Capsicum frutescens</i>	Resin, Exudate, Sap	--	--		--
<i>Centaurea cyanus</i>	Flower	--	--		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>Chrysanthemum x morifolium</i>	Flower	--	--		Wealth of India.
<i>Cimicifuga racemosa</i>	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.
<i>Cinnamomum camphora</i>	Plant	--	--		--
<i>Citrus aurantium</i>	Flower	--	--		List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Citrus aurantium</i>	Plant	--	--		--
<i>Citrus limon</i>	Essential Oil	--	--		Lawrence, B.M., <i>Essential Oils 1976-1977</i> , <i>Essential Oils 1978</i> , <i>Essential Oils 1979-1980</i> .
<i>Citrus paradisi</i>	Fruit	--	--		Guenther, E., <i>The Essential Oils</i> , 6 volumes, D. van Nostrand, New York, 1948-1952.
<i>Citrus sinensis</i>	Plant	--	--		--
<i>Commiphora myrrha</i>	Resin, Exudate, Sap	--	--		--
<i>Coriandrum sativum</i>	Fruit	1	1	-0.6428126249807119	Lawrence, B.M., <i>Essential Oils 1976-1977</i> , <i>Essential Oils 1978</i> , <i>Essential Oils 1979-1980</i> .
<i>Coriaria thymifolia</i>	Plant	--	--		--
<i>Croton tiglium</i>	Seed	1800	3000	-0.9346844062201093	--
<i>Cymbopogon martinii</i>	Plant	--	--		List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Datura stramonium</i>	Plant	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Digitalis purpurea	Leaf	--	--		--
Elettaria cardamomum	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Ephedra sinica	Shoot	--	--		--
Eriodictyon californicum	Plant	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Eruca sativa	Hs	--	--		--
Erythroxylum zambesiaca	Root	--	--		--
Ficus carica	Fruit Juice	--	--		Shiraishi, S. C., Kawakami, K., Widodo, S. E., Shiraishi, M., Kitazaki, M. 1996. Organic acid profiles in the juice of fig fruits. Journal of the Faculty of Agriculture Kyushu University, 41(1-2): 29-33.
Ginkgo biloba	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ginkgo biloba	Pollen Or Spore	--	--		Jim Duke's personal files.
Gleditsia triacanthos	Seed	--	--		--
Glycine max	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Glycyrrhiza glabra	Root	2	2		--
Haematoxylum campechianum	Wood	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Hedeoma pulegioides</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Helichrysum angustifolium</i>	Plant	--	--		--
<i>Hibiscus sabdariffa</i>	Fruit	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Hibiscus sabdariffa</i>	Seed	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Hibiscus sabdariffa</i>	Calyx	--	--		--
<i>Juniperus communis</i>	Fruit	--	9000	1.951794238179258	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Kalanchoe pinnata</i>	Plant	--	--		Tramil
<i>Laurus nobilis</i>	Leaf	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lavandula x intermedia</i>	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Levisticum officinale</i>	Root	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
<i>Linum usitatissimum</i>	Seed	3105	3853	-0.45177356521117334	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Lycopersicon esculentum</i>	Fruit	--	--		--
<i>Malus domestica</i>	Plant	--	--		--
<i>Melia azedarach</i>	Fruit	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Mentha arvensis var. piperascens	Plant	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Mentha pulegium	Essential Oil	--	--		--
Mentha spicata	Plant	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Mentha spicata	Essential Oil	--	--		--
Mentha x piperita	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Menyanthes trifoliata	Plant	--	--		Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Monarda fistulosa	Essential Oil	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Morinda citrifolia	Plant	--	0.02	-0.7153735267894865	--
Morus alba	Leaf	--	--		--
Musa x paradisiaca	Fruit	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
Myristica fragrans	Seed	--	--		--
Myristica fragrans	Seed Essent. Oil	--	--		--
Myrtus communis	Plant	0	1	-0.6988076937022064	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Neurolaena lobata	Plant	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Nicotiana tabacum</i>	Leaf	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Ocimum basilicum</i>	Essential Oil	--	--		--
<i>Ocimum gratissimum</i>	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Ocimum tenuiflorum</i>	Plant	--	--		--
<i>Panax ginseng</i>	Shoot	--	--		--
<i>Panax quinquefolius</i>	Plant	126	126	1.414181220491693	--
<i>Pelargonium graveolens</i>	Essential Oil	--	--		--
<i>Peucedanum ostruthium</i>	Root	--	--		--
<i>Polygonum hydropiper</i>	Plant	--	--		--
<i>Prunus armeniaca</i>	Essential Oil	--	--		--
<i>Prunus cerasus</i>	Fruit	--	--		--
<i>Prunus persica</i>	Fruit	--	--		--
<i>Pyrus communis</i>	Plant	--	--		--
<i>Rheum rhabarbarum</i>	Pt	--	--		--
<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>Ribes rubrum</i>	Fruit	--	--		--
<i>Ribes uva-crispa</i>	Fruit	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Rosa canina</i>	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Rosmarinus officinalis</i>	Resin, Exudate, Sap	--	--		--
<i>Rubus idaeus</i>	Plant	--	--		--
<i>Saussurea lappa</i>	Root Essent. Oil	--	--		--
<i>Schoenocaulon officinale</i>	Seed	--	--		--
<i>Scutellaria baicalensis</i>	Root Essent. Oil	--	--		--
<i>Sterculia urens</i>	Gum	--	--		--
<i>Tagetes minuta</i>	Essential Oil	--	--		--
<i>Tamarindus indica</i>	Fruit	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Telosma cordata</i>	Flower	2610	2610		K. Furukawa, T. Arai, S. Hashimoto, (1993); Volatile components of <i>Telosma cordata</i> Merrill flowers, Flavour Fragr. J., Vol 8, 221-223.
<i>Theobroma cacao</i>	Seed	1520	7100	1.3864579714312821	--
<i>Thuja occidentalis</i>	Branches	--	--		--
<i>Thymus mastichina</i>	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Trifolium pratense</i>	Root	--	--		--
<i>Trifolium pratense</i>	Fruit	--	--		--
<i>Urtica dioica</i>	Plant	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Vaccinium corymbosum</i>	Fruit Juice	0.7	0.7	0.9999999999999999	--
<i>Vaccinium myrtillus</i>	Fruit Juice	0.32	0.32	-0.9999999999999999	--
<i>Valeriana jatamansi</i>	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Valeriana officinalis</i>	Root	--	--		--
<i>Vanilla planifolia</i>	Fruit	--	151	-0.5995643718999257	--
<i>Veratrum album</i>	Rhizome	--	--		--
<i>Veratrum viride</i>	Rhizome	--	--		--
<i>Viburnum opulus</i>	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Viburnum opulus</i>	Root Bark	--	--		--
<i>Viburnum prunifolium</i>	Bark	--	--		--
<i>Vitis vinifera</i>	Fruit	1500	2000	-0.06645757225743394	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Vitis vinifera</i>	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Zingiber officinale</i>	Rhizome	--	--		--
<i>Zingiber officinale</i>	Rhizome Essent. Oil	--	--		--