

List of Plants

CITRIC-ACID

Chemid
CITRICACID

Dosage

LD50=975 (ipr rat) Merck 11th Edition

LD50=6,730 mg/kg (orl rat) Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.

*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
Aconitum napellus	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Adonis vernalis	Plant	--	--		*
Aesculus hippocastanum	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Allium cepa	Bulb	--	--		Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
Allium cepa	Leaf	--	--		Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
Allium schoenoprasum	Leaf	--	--		*
Alocasia macrorrhiza	Plant	--	--		*
Anabasis aphylla	Plant	--	--		*
Ananas comosus	Fruit	3200.0	86000.0	0.76	*
Annona muricata	Plant	--	--		*
Annona squamosa	Plant	--	--		*
Apium graveolens	Root	--	--		*
Apium graveolens	Pt	--	--		*
Arctostaphylos uva-ursi	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Avena sativa	Hull Husk	--	--		*
Avena sativa	Petiole	--	--		*
Averrhoa carambola	Fruit	--	13200.0	-0.44	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Berberis vulgaris	Plant	--	--		*
Beta vulgaris	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Brassica oleracea var. botrytis l.	Flower	--	--		*

Brassica oleracea var. sabellica l.	Leaf	--	--		*
Brassica oleracea var. capitata l.	Leaf	--	--		Jim Duke's personal files.
Brassica oleracea var. gemmifera	Leaf	--	--		*
Brassica oleracea	Stem	--	--		*
Brassica oleracea var. botrytis l.	Plant	--	--		*
Brassica oleracea var. italica	Plant	--	--		Jim Duke's personal files.
Capparis spinosa	Plant	--	--		*
Capsella bursa-pastoris	Plant	--	--		*
Capsicum frutescens	Fruit	--	--		*
Capsicum annuum	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Carica papaya	Fruit	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Catalpa ovata	Fruit	--	--		*
Cephaelis ipecacuanha	Plant	--	--		*
Chaenomeles lagenaria	Fruit	--	--		*
Chelidonium majus	Plant	--	--		*
Cichorium intybus	Plant	--	--		*
Citrus sinensis	Fruit	5600.0	9800.0	-0.49	*
Citrus aurantiifolia	Fruit	--	800.0	-0.64	*
Citrus limon	Fruit Juice	--	--		Jim Duke's personal files.
Citrus aurantium	Plant	--	--		*
Citrus reticulata	Fruit	8600.0	12200.0	-0.45	*
Citrus mitis	Fruit	28100.0	281000.0	3.95	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Citrus aurantium	Fruit	--	--		Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
Citrus paradisi	Fruit	11900.0	21000.0	-0.31	*
Citrus limon	Fruit	--	59500.0	0.32	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Citrus mitis	Fruit Juice	36000.0	55200.0	1.0	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Cocos nucifera	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Coffea arabica	Seed	--	--		*
Convallaria majalis	Plant	--	--		*
Crataegus rhipidophylla	Fruit	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
Crataegus laevigata	Fruit	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)

<i>Cryptostegia grandifolia</i>	Latex Exudate	--	--		*
<i>Cucumis melo</i>	Leaf	--	--		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	--	750.0	-0.6	*
<i>Daucus carota</i>	Root	--	--		*
<i>Digitalis purpurea</i>	Leaf	--	--		*
<i>Equisetum arvense</i>	Plant	--	--		Jim Duke's personal files.
<i>Eriobotrya japonica</i>	Leaf	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Euonymus atropurpureus</i>	Plant	--	--		*
<i>Euphorbia tirucalli</i>	Plant	--	74000.0	2.0	*
<i>Fagopyrum esculentum</i>	Leaf	--	8200.0	-0.21	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Ficus carica</i>	Fruit	1000.0	4400.0	-0.58	*
<i>Filipendula ulmaria</i>	Flower	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Foeniculum vulgare</i>	Seed	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
<i>Foeniculum vulgare</i>	Fruit	--	--		*
<i>Fragaria spp</i>	Fruit	3500.0	8000.0	-0.52	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Galium odoratum</i>	Plant	--	--		*
<i>Garcinia mangostana</i>	Fruit	4200.0	27815.0	-0.2	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Ginkgo biloba</i>	Pollen Or Spore	--	--		Jim Duke's personal files.
<i>Ginkgo biloba</i>	Seed	--	--		Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of <i>Glycyrrhiza-glabra</i> . <i>Nippon Gogeikagaku Kaishi</i> 61(9): 1119-1122.
<i>Glycine max</i>	Seed	8000.0	13000.0	1.22	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Helianthus annuus</i>	Seed	--	1900.0	-1.23	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Hibiscus sabdariffa</i>	Fruit	37400.0	170000.0	2.13	*
<i>Hibiscus sabdariffa</i>	Flower	6233.0	56667.0		*
<i>Hippophae rhamnoides</i>	Fruit	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Juglans regia</i>	Fruit	--	--		*
<i>Juniperus communis</i>	Leaf	--	--		*
<i>Kalanchoe pinnata</i>	Leaf	--	--		*
<i>Lactuca scariola</i>	Latex Exudate	--	--		*
<i>Lactuca sativa</i>	Leaf	--	500.0	-0.62	*
<i>Lactuca virosa</i>	Plant	--	--		*
<i>Ledum palustre</i>	Plant	--	--		*
<i>Leonurus cardiaca</i>	Plant	--	--		*
<i>Lupinus albus</i>	Seed	--	--		*
<i>Lycopersicon esculentum</i>	Fruit	--	--		*

Malus domestica	Plant	--	--		*
Mammea americana	Fruit	--	6000.0	-0.55	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Mangifera indica	Fruit	--	--		*
Medicago sativa	Plant	--	--		*
Morus alba	Plant	--	--		*
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.
Myrciaria dubia	Fruit	--	--		Jim Duke's personal files.
Myrtus communis	Fruit	--	--		*
Nicotiana tabacum	Leaf	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Opuntia ficus-indica	Leaf	--	310.0	-0.63	*
Opuntia ficus-indica	Fruit	475.0	4560.0	-0.58	*
Panax quinquefolius	Plant	--	3000.0	-0.52	*
Panax ginseng	Root	--	--		*
Papaver somniferum	Latex Exudate	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Paris quadrifolia	Plant	--	--		*
Passiflora edulis	Fruit	20000.0	45600.0	0.09	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Petroselinum crispum	Root	--	--		*
Physalis ixocarpa	Fruit	8010.0	11690.0	-0.46	*
Physalis peruviana	Fruit	--	22000.0	-0.29	*
Piscidia piscipula	Plant	--	--		*
Pisum sativum	Seed	--	--		*
Plantago major	Plant	--	--		*
Polypodium vulgare	Root	--	--		*
Portulaca oleracea	Plant	--	5100.0	-0.44	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Prunus domestica	Fruit	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Prunus cerasus	Fruit	--	--		*
Prunus persica	Fruit	--	--		*
Prunus armeniaca	Fruit	--	--		*
Psidium guajava	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Punica granatum	Fruit Juice	8100.0	12300.0	-1.0	*
Pyrus communis	Fruit	--	--		*
Quisqualis indica	Fruit	--	--		*
Rheum rhabarbarum	Pt	--	--		*

Rhododendron ferrugineum	Leaf	--	--		*
Ribes rubrum	Fruit	--	20200.0	-0.32	*
Ribes nigrum	Fruit	--	35000.0	-0.08	*
Ribes uva-crispa	Fruit	--	8800.0	-0.51	*
Rosa laevigata	Fruit	--	--		*
Rosa canina	Fruit	--	15000.0	-0.41	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Rosa canina	Seed	--	--		*
Rosa spp	Fruit	--	--		*
Rubus chingii	Fruit	--	--		*
Rubus idaeus	Fruit	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Sambucus nigra	Fruit	500.0	7340.0	-0.53	*
Schisandra chinensis	Plant	--	--		*
Schisandra chinensis	Fruit	5000.0	33333.0	-0.11	*
Sclerocarya caffra	Fruit	--	--		*
Solanum sessiliflorum	Fruit	8000.0	80000.0	0.66	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Solanum tuberosum	Tuber	--	2000.0		*
Solanum nigrum	Leaf	--	50000.0	1.98	*
Sophora pachycarpa	Plant	--	--		*
Sorbus aucubaria	Fruit	--	--		*
Spinacia oleracea	Leaf	--	2300.0	-0.52	Soldatenkov, S. V., Mazurova, T. A., Ranteleev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
Stevia rebaudiana	Plant	--	5350.0	-0.44	Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp.
Tamarindus indica	Fruit	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Theobroma cacao	Seed	4500.0	7500.0	0.01	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Urtica dioica	Plant	--	--		*
Vaccinium vitis-idaea	Fruit	--	--		*
Vaccinium macrocarpon	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Vaccinium myrtillus	Fruit	--	--		*
Vaccinium myrtillus	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Vanilla planifolia	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Viburnum prunifolium	Root Bark	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Viburnum opulus	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Vicia faba	Fruit	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Vitis vinifera	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Vitis vinifera	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Zizyphus jujuba	Fruit	4000.0	12000.0	-0.46	*