

## Dr. Duke's Phytochemical and Ethnobotanical Databases

### List of Plants for RESIN

Plant	Part	Low PPM	High PPM	StdDev	Reference
Abelmoschus moschatus	Seed		65000.0	-0.4413089361281032	Wealth of India.
Abies balsamea	Gum				--
Acalypha indica	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Achillea millefolium	Plant		6000.0	-0.8622069963910537	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Acorus calamus	Plant				--
Acorus calamus	Rhizome		25000.0	-1.3821894809301767	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Actaea racemosa	Root				--
Agathosma betulina	Leaf		50000.0	-0.27511406022450346	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Aloe vera	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Alpinia galanga	Rhizome				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Anaphalis margaritacea	Plant				--
Andira inermis	Bark				--
Anemone pulsatilla	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Annona squamosa	Plant				--
Annona muricata	Plant				--
Apocynum cannabinum	Plant				--
Areca catechu	Seed				--
Argemone mexicana	Plant		17500.0	-0.7908535804151542	--
Arundo donax	Stem				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Azadirachta indica	Seed				--
Baptisia tinctoria	Plant				--
Barosma betulina	Leaf		50000.0	-0.27511406022450346	--
Berberis vulgaris	Plant				--
Borago officinalis	Plant				--
Boswellia sacra	Latex Exudate	600000.0	700000.0	0.898643077437173	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Bursera simaruba	Plant				--
Bursera delpechiana	Wood				--
Calendula officinalis	Flower		34000.0		--
Canarium indicum	Gum				--
Carica papaya	Latex Exudate		28000.0	-1.5290479699508885	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Catharanthus roseus	Root Bark		20000.0		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Caulophyllum thalictroides	Root				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Ceiba pentandra	Leaf				--
Centella asiatica	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.
Chamaesyce hypericifolia	Plant				--
Chimaphila umbellata	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6. Springer-Verlag, Berlin, 1969-1979.
Cimicifuga racemosa	Root				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Cinchona spp	Bark				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Commiphora myrrha	Resin, Exudate, Sap	200000.0	400000.0		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Copaifera spp	Gum	60000.0	540000.0	-1.0	--
Coriaria myrtifolia	Leaf				--
Cornus florida	Bark				--
Croton tiglium	Seed	10000.0	34000.0	-1.0927649846981604	--
Croton eluteria	Bark		150000.0	1.5611825290618342	--
Croton lechleri	Plant				Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Cryptostegia grandifolia	Seed		175000.0	1.8703093007333897	--
Cuminum cyminum	Seed				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Cuminum cyminum	Fruit				--
Curcuma zedoaria	Rhizome				Chemical Constituents of Oriental Herbs (3 diff. books)
Curcuma longa	Rhizome				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Cyperus rotundus	Root		42100.0	0.6735167045095913	--
Daemonorops draco	Fruit				--
Dodonaea viscosa	Leaf		66400.0	0.5279697013369913	--
Echinacea purpurea	Root	5020.0	20000.0	-1.1686515095574843	--
Eleutherococcus senticosus	Root				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Ephedra nevadensis</i>	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Eriodictyon californicum</i>	Leaf	8800.0	80000.0	1.1939416011684747	--
<i>Eucommia ulmoides</i>	Bark		70000.0	0.15391940427370196	Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Eupatorium perfoliatum</i>	Plant				--
<i>Euphorbia tirucalli</i>	Latex Exudate				--
<i>Euphorbia hirta</i>	Plant				--
<i>Ferula sumbul</i>	Plant		170000.0	0.15535476187394828	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Ferula assa-foetida</i>	Plant	400000.0	640000.0	3.071537849584625	Tucker, A. O. and Debaggio, T. 2000. The Big Book of Herbs. Interweave Press, Inc. Loveland, CO. 688 pp.
<i>Ficus carica</i>	Leaf		22000.0	-1.6462326775246163	Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.
<i>Frangula purshiana</i>	Plant				--
<i>Garcinia hanburyi</i>	Plant				--
<i>Geranium maculatum</i>	Plant				--
<i>Glechoma hederacea</i>	Plant				Jim Duke's personal files.
<i>Glycyrrhiza glabra</i>	Plant				--
<i>Grindelia squarrosa</i>	Plant		200000.0	0.341494107898034	--
<i>Guaiacum</i> sp.	Wood		200000.0	1.3151310801121845	--
<i>Guarea rusbyi</i>	Bark		23000.0	-0.6728476815393257	--
<i>Haematoxylum campechianum</i>	Wood				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Hedera helix</i>	Plant				--
<i>Hemidesmus indicus</i>	Root				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Hibiscus sabdariffa	Calyx				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Holarrhena pubescens	Bark		2000.0	-1.0422542517962106	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Hydrangea arborescens	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Hydrastis canadensis	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Hyoscyamus niger	Seed				--
Hyssopus officinalis	Plant				--
Ilex paraguariensis	Leaf		48000.0	-0.37305110431736865	--
Inula helenium	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ipomoea purga	Tuber	100000.0	200000.0		--
Iris versicolor	Rhizome				--
Iris x germanica	Rhizome				--
Jasminum officinale	Leaf				--
Juniperus communis	Fruit	80000.0	100000.0	0.5011700816956098	--
Lactuca scariola	Latex Exudate				--
Lagochilus inebrians	Plant	30000.0	90000.0	-0.34101682752361356	--
Larrea tridentata	Plant	49350.0	200000.0	0.341494107898034	--
Lawsonia inermis	Leaf	20000.0	30000.0	-1.2544845011531556	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Leonotis leonurus	Plant		198000.0	0.329084818163095	--
Leonurus cardiaca	Plant				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Levisticum officinale	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Ligustrum vulgare	Bark				--
Lindera benzoin	Plant				--
Lobelia inflata	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Lycopus europeus	Plant		29000.0	-0.7195001644392546	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Maclura pomifera	Fruit	166640.0	216900.0	2.002753572944224	Smith, J. L. and Perino, J. V. 1981. Osage Orange (Maclura pomifera): History and Economic Uses. Economic Botany 35(1): 24-41
Mahonia aquifolium	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Manilkara zapota	Latex Exudate		380000.0	-0.25740027846190383	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Marrubium vulgare	Plant				--
Melia azedarach	Plant				--
Mentha arvensis var. piperascens	Plant				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Mirabilis jalapa	Root		30000.0	-0.3350912316990789	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Myrica cerifera	Bark				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Myroxylon balsamum	Gum				--
Myrtus communis	Plant				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
Nigella sativa	Seed				--
Oenanthe aquatica	Fruit		40000.0	-0.26953145359024877	--
Oenothera biennis	Plant				--
Ononis spinosa	Plant				--
Opopanax chironium	Plant		190000.0	0.2794476592233388	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Opopanax chironium	Hh		190000.0		--
Panax quinquefolius	Plant				--
Paullinia cupana	Seed		70000.0	-0.33623537990712626	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Peucedanum ostruthium	Plant				--
Peumus boldus	Plant				--
Peumus boldus	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Physalis peruviana	Fruit		2000.0	-0.757642425937959	--
Physalis alkekengi	Fruit		2000.0	-0.757642425937959	--
Phytolacca americana	Root				--
Piper methysticum	Root		53000.0	1.582097407375253	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Piper nigrum	Fruit		5000.0	-0.7191073491736661	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Piper angustifolium	Leaf				--
Pistacia vera	Plant				--
Plantago major	Plant				--
Podophyllum peltatum	Plant	30000.0	60000.0	-0.5271561735476993	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Podophyllum hexandrum	Rhizome	60000.0	200000.0	0.4319342127906797	--
Podophyllum hexandrum	Leaf	78000.0	97000.0	2.026406475957829	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Polygala tenuifolia	Root				--
Polypodium vulgare	Rhizome				--
Populus nigra	Plant				--
Portulaca oleracea	Plant		24000.0	-0.7505233887766023	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Prunella vulgaris	Plant				Chemical Constituents of Oriental Herbs (3 diff. books)
Prunus serotina	Stem Bark				--
Psoralea corylifolia	Seed		86000.0	0.0	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Pterocarpus marsupium	Wood		9000.0	-1.1079239324417767	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Quercus robur	Bark				--
Quercus alba	Bark				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Rheum officinale	Root				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Robinia pseudoacacia	Bark				--
Rosa centifolia	Flower				--
Rosa gallica	Flower				--
Rumex hymenosepalus	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses



Plant	Part	Low PPM	High PPM	StdDev	Reference
Ruscus aculeatus	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Salix alba	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Salvia officinalis	Plant	50000.0	60000.0	-0.5271561735476993	--
Sambucus canadensis	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Sambucus nigra	Leaf		43400.0	-0.5983063057309587	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Sanguinaria canadensis	Plant				--
Sanguisorba minor	Plant				--
Santalum album	Wood	50000.0	80000.0	-0.2072071476704087	--
Santolina chamaecyparissus	Plant				--
Sassafras albidum	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Satureja hortensis	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Schinus terebinthifolius	Bark				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Scutellaria churchilliana	Plant				--
Scutellaria lateriflora	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Senecio aureus	Plant				--
Simarouba amara	Bark				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Smilax spp	Root		25000.0	-0.7518713706282815	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Smilax china	Root				--
Stillingia sylvatica	Plant				--
Styrax tonkinensis	Gum	700000.0	800000.0	1.0	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Styrax benzoin	Plant				--
Swertia chirata	Plant				--
Symphytum officinale	Root				--
Symplocarpus foetidus	Plant				--
Syzygium aromaticum	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Taraxacum officinale	Root				--
Teucrium marum	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Thevetia peruviana	Latex Exudate	674000.0	697000.0	0.8878051709756192	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Thuja occidentalis	Branches				--
Thymus vulgaris	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Trifolium pratense	Plant				--
Turnera diffusa	Branches		65000.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Turnera diffusa	Leaf	13650.0	65000.0	0.45941377047198567	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Valeriana officinalis	Root				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Vanilla planifolia	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Veratrum album	Rhizome		250000.0	0.9502552681394958	--
Veronica officinalis	Plant				--
Viburnum prunifolium	Root Bark				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Viscum album	Plant				--
Xylopiya aethiopica	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Zanthoxylum americanum	Plant				--
Zea mays	Silk Stigma Style				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Zizyphus jujuba	Leaf		60000.0	0.21457116023982262	--