

List of Plants



CAS Number

464,482

Chemid

CAMPHOR

Dosage

LDlo=900 (ipr rat)	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
LDlo=1,000 mg/chd	Martindale's 28th
LDlo=50	J. Nat. Prod. 50: 1017.
LD50=3,000 (ipr mus)	
LD=1,200 mg/kg (ipr rat)	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.

*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
Achillea millefolium	Leaf	20.0	2880.0	-0.18	*
Acinos alpinus	Shoot	--	1.0	-0.16	Velasco-Negueruela,A., Perez-Alonso,M.J., Jiminez,S.M. and Garcia,F.M. 1993. The Volatile Constituents of Acinus alpinus (L.) Moench ssp. meridionalis (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.)
Acinos alpinus	Shoot	--	1.0	-0.16	Velasco-Negueruela,A., Perez-Alonso,M.J., Jiminez,S.M. and Garcia,F.M. 1993. The Volatile Constituents of Acinus alpinus (L.) Moench ssp. meridionalis (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.)
Acorus calamus	Rhizome	--	--		Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Alpinia officinarum	Rhizome	--	--		Wealth of India.
Alpinia galanga	Rhizome	--	--		*
Alpinia galanga	Rhizome Essent. Oil	--	--		*
Ammi visnaga	Essential Oil	--	--		*
Amomum compactum	Seed	--	--		Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
Anethum graveolens	Root	--	--		*
Annona squamosa	Plant	--	--		*
Artemisia dracunculus	Leaf Essent. Oil	--	20000.0	-0.72	*
Artemisia herba-alba	Plant	580.0	773.0	-0.26	*
Artemisia salsoloides	Shoot	--	210000.0	7.73	V. Kaul, P. Weyerstahl, H. Wahlberg, H. Marschall, (1992); Volatile constituents of the essential oil and the absolute of Aremisia salsoloides Willd. from Ladakh, Flavour and Fragrance journal, Vol.7, 299-305.
Artemisia vulgaris	Plant	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.

<i>Artemisia dracunculus</i>	Essential Oil	--	--		*
<i>Artemisia dracunculus</i>	Shoot	20.0	200.0	-0.15	*
<i>Artemisia annua</i>	Leaf	100.0	8720.0	-0.05	*
<i>Calamintha nepeta</i>	Leaf	--	1.0	-0.25	Akgul, A., De Pooter, H.L., and De Buyck, L.F. 1991. The Essential Oils of <i>Calamintha nepeta</i> subsp. <i>glandulosa</i> and <i>Ziziphora clinopodioides</i> from Turkey. <i>J. Ess. Oil Res.</i> , 3: 7-10.
<i>Cannabis sativa</i>	Essential Oil	--	--		*
<i>Cannabis sativa</i>	Leaf Essent. Oil	--	--		*
<i>Cannabis sativa</i>	Plant	--	--		Turner, C. E., El Sohly, M. A., Boeren, E. G. 1980. Constituents of <i>Cannabis sativa</i> L. XVII. A Review of the Natural Constituents. <i>J Natural Products</i> , 432: 169-234.
<i>Capsicum frutescens</i>	Fruit	--	--		*
<i>Centella asiatica</i>	Essential Oil	--	--		*
<i>Chrysanthemum x morifolium</i>	Flower	--	--		Wealth of India.
<i>Chrysanthemum parthenium</i>	Shoot	--	640.0	-0.13	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of <i>Tanacetum parthenium</i> (L.) Schultz-Bip. <i>Flavor and Fragrance Journal</i> 11(6): 367-71.
<i>Cinnamomum camphora</i>	Leaf	96.0	220000.0	4.68	*
<i>Cinnamomum verum</i>	Root Bark	--	--		*
<i>Cinnamomum verum</i>	Stem Bark	--	--		*
<i>Cinnamomum verum</i>	Essential Oil	--	--		*
<i>Cinnamomum verum</i>	Plant	--	--		*
<i>Cinnamomum verum</i>	Leaf	--	5.0	-0.25	*
<i>Cinnamomum verum</i>	Bark Essent. Oil	--	--		*
<i>Cleonia lusitanica</i>	Leaf	5.0	7.0	-0.25	Perez-Alonso, M., Velasco-Negueruela, A., and Lopez-Saez, A. 1991. The Essential Oil of <i>Cleonia lusitanica</i> . <i>J. Ess. Oil Res.</i> , 3: 441-442.
<i>Coleus barbatus</i>	Stem Essent. Oil	--	2500.0		Jim Duke's personal files.
<i>Coleus barbatus</i>	Leaf Essent. Oil	--	2500.0	-0.83	Jim Duke's personal files.
<i>Coriandrum sativum</i>	Seed Essent. Oil	--	58300.0	1.0	*
<i>Coriandrum sativum</i>	Fruit	100.0	1300.0	1.65	*
<i>Coriandrum sativum</i>	Essential Oil	--	--		*
<i>Crocus sativus</i>	Silk Stigma Style	--	--		*
<i>Curcuma longa</i>	Rhizome Essent. Oil	--	600.0	-1.0	*
<i>Curcuma longa</i>	Tuber	--	--		*
<i>Cymbopogon nardus</i>	Plant	15.0	60.0	-0.62	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>
<i>Daucus carota</i>	Seed	--	--		*
<i>Elettaria cardamomum</i>	Fruit	7.0	20.0	-0.87	Duke, J. A. and duCellier, J. L. 1993. <i>CRC Handbook of Alternative Cash Crops</i> . CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
<i>Elsholtzia cristata</i>	Shoot	--	4.0	-0.16	Kobold, U., Vostrowsky, O., Bestmann, H.J., Bisht, J.C., Pant, A.K., Melkani, A.B. and Mathela, C.S. 1987. Terpenoids from <i>Elsholtzia</i> Species; II. Constituents of Essential Oil from a New Chemotype of <i>Elsholtzia cristata</i> . <i>Planta Medica</i> 1987: 268-271.
<i>Foeniculum vulgare</i>	Fruit	10.0	180.0	-0.55	*
<i>Foeniculum vulgare</i>	Seed	10.0	180.0		Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>

<i>Glycyrrhiza glabra</i>	Root	--	--		*
<i>Hedeoma reverchonii</i>	Plant	--	31.0	-0.64	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Hedeoma drummondii</i>	Plant	1.0	786.0	-0.25	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Helianthus annuus</i>	Flower	--	--		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.
<i>Hyptis suaveolens</i>	Shoot	--	12.0	-0.16	Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of <i>Hyptis suaveolens</i> (L.) Poit. J. Ess. Oil Res. 5: 321.
<i>Hyptis suaveolens</i>	Shoot	--	12.0	-0.16	Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of <i>Hyptis suaveolens</i> (L.) Poit. J. Ess. Oil Res. 5: 321.
<i>Hyssopus officinalis</i>	Essential Oil	--	--		*
<i>Hyssopus officinalis</i>	Leaf	10.0	3280.0	-0.18	*
<i>Hyssopus officinalis</i>	Flower	125.0	1240.0	-0.4	*
<i>Juniperus communis</i>	Essential Oil	--	--		*
<i>Juniperus communis</i>	Fruit	1.0	7.0	-0.89	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lantana camara</i>	Shoot	--	1.0	-0.16	*
<i>Larrea tridentata</i>	Plant	--	--		*
<i>Laurus nobilis</i>	Leaf Essent. Oil	--	--		*
<i>Laurus nobilis</i>	Plant	--	--		*
<i>Lavandula angustifolia</i>	Flower	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lavandula sp</i>	Shoot	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<i>Lavandula x intermedia</i>	Plant	542.0	1620.0	0.17	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lavandula latifolia</i>	Plant	480.0	3300.0	1.02	*
<i>Lavandula x hybrida</i>	Shoot	660.0	890.0	-0.12	Tucker, A.O., Maciarello, M.J., Angell, S., Espaillet, J.R., and French, E.C. 1993. The Essential Oil of <i>Lavandula x hybrida</i> Balb. ex Ging., a Distinct Hybrid from <i>L. x heterophylla</i> Poir. (Labiatae). J. Ess. Oil Res. 5: 443-445.
<i>Lepechinia calycina</i>	Plant	--	875.0	-0.21	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Levisticum officinale</i>	Root	1.0	10.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lippia alba</i>	Plant	--	--		Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.
<i>Lippia dulcis</i>	Plant	--	--		*
<i>Magnolia kobus</i>	Flower	--	--		*
<i>Magnolia fargesii</i>	Flower	--	--		*
<i>Melaleuca alternifolia</i>	Leaf	--	0.001	-0.25	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Micromeria myrtifolia</i>	Shoot	--	0.5	-0.16	Ozek, T., Kirimer, N., and Baser, K.H.C. 1992. Composition of the Essential Oil of <i>Micromeria myrtifolia</i> Boiss. et Hohen. J. Ess. Oil Res., 4: 79-80.
<i>Micromeria juliana</i>	Leaf	--	65.0	-0.25	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . J. Ess. Oil Res., 3: 387-393.
<i>Micromeria croatica</i>	Leaf	--	140.0	-0.25	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . J. Ess. Oil Res., 3: 387-393.
<i>Micromeria thymifolia</i>	Leaf	--	10.0	-0.25	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . J. Ess. Oil Res., 3: 387-393.
<i>Myristica fragrans</i>	Seed Essent. Oil	--	34000.0	-1.0	*
<i>Myrtus communis</i>	Plant	12.0	18.0	-0.64	*

<i>Nepeta cataria</i>	Plant	16.0	80.0	-0.61	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Nepeta racemosa</i>	Shoot	--	2.0	-0.16	Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of <i>Nepeta racemosa</i> Lam. J. Ess. Oil Res. 5: 215-7.
<i>Nepeta racemosa</i>	Shoot	--	2.0	-0.16	Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of <i>Nepeta racemosa</i> Lam. J. Ess. Oil Res. 5: 215-7.
<i>Ocimum basilicum</i>	Plant	2.0	31.0	-0.64	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
<i>Ocimum kilimandscharicum</i>	Flower	2650.0	5070.0	1.38	Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of <i>Ocimum kilimandscharicum</i> Guerke. J. Ess. Oil Res., 4: 125-128.
<i>Ocimum basilicum</i>	Essential Oil	2100.0	7200.0	-1.19	*
<i>Ocimum tenuiflorum</i>	Leaf	--	--		=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
<i>Ocimum canum</i>	Shoot	1900.0	4550.0	0.01	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Ocimum basilicum</i>	Shoot Essent. Oil	--	4500.0	-1.0	*
<i>Ocimum gratissimum</i>	Plant	2.0	35.0	-0.64	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Ocimum kilimandscharicum</i>	Shoot	0.1	7000.0	0.11	Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of <i>Ocimum kilimandscharicum</i> Guerke. J. Ess. Oil Res., 4: 125-128.
<i>Ocimum basilicum</i>	Leaf Essent. Oil	--	10000.0	-0.78	*
<i>Origanum syriacum</i>	Shoot	--	0.1	-0.16	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
<i>Origanum sipyleum</i>	Shoot	--	13.0	-0.16	Baser, K.H.C., Ozek, T., Kurkuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of <i>Origanum sipyleum</i> of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
<i>Origanum sipyleum</i>	Shoot	--	15.0	-0.16	Baser, K.H.C., Ozek, T., Kurkuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of <i>Origanum sipyleum</i> of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
<i>Origanum syriacum</i>	Shoot	--	--		Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
<i>Origanum onites</i>	Shoot	--	--	-0.16	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.
<i>Origanum sipyleum</i>	Shoot	--	10.0	-0.16	Baser, K.H.C., Ozek, T., Kurkuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of <i>Origanum sipyleum</i> of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
<i>Origanum syriacum</i>	Shoot	--	--	-0.16	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
<i>Origanum creticum</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Origanum sipyleum</i>	Shoot	--	15.0	-0.16	Baser, K.H.C., Ozek, T., Kurkuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of <i>Origanum sipyleum</i> of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
<i>Origanum vulgare</i>	Plant	--	40.0	-0.63	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Peumus boldus</i>	Leaf	1.6	150.0	-0.25	*
<i>Pimenta racemosa</i>	Leaf	--	240.0	-0.24	*
<i>Pimpinella anisum</i>	Seed Essent. Oil	--	--		*
<i>Pinus sylvestris</i>	Leaf Essent. Oil	--	--		*
<i>Piper nigrum</i>	Fruit	--	--		*
<i>Piper auritum</i>	Leaf	--	--		Tramil
<i>Polygonum hydropiper</i>	Essential Oil	--	--		*
<i>Ptychopetalum olacoides</i>	Root Essent. Oil	--	62000.0		Uber Bucek, E., Fournier, G., Dadoun, H. 1987. Volatile Constituents of <i>Ptychopetalum olacoides</i> Root Oil. Planta Med. 53, 2: 231.
<i>Pycnanthemum pycnanthemoides</i>	Shoot	78.0	116.0	-0.15	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

<i>Pycnanthemum montanum</i>	Shoot	3395.0	3880.0	-0.01	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum tenuifolium</i>	Shoot	4.0	40.0	-0.16	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum clinopodioides</i>	Shoot	42.0	44.0	-0.16	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Rhododendron dauricum</i>	Plant	--	--		*
<i>Rosmarinus x lavandulaceus</i>	Shoot	330.0	2335.0	-0.07	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus officinalis</i>	Shoot	320.0	1410.0	-0.1	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus officinalis</i>	Shoot	--	1030.0	-0.12	Tucker, A. O. and Maciarello, M. J. 1998. The essential oils of some rosemary cultivars. Flavor and Fragrance Journal, 1: 137-142. 1986.
<i>Rosmarinus tomentosus</i>	Shoot	2745.0	4455.0	0.01	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus officinalis</i>	Leaf	--	595.0	-0.24	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaïd, M.H. 1994. Analysis and Biological Activity of the Essential Oil of <i>Rosmarinus officinalis</i> L. from Egypt. Flavour and Fragrance J. 9: 29-33.
<i>Rosmarinus officinalis</i>	Resin, Exudate, Sap	--	--		*
<i>Rosmarinus officinalis</i>	Plant	60.0	5800.0	2.29	*
<i>Rosmarinus officinalis</i>	Leaf Essent. Oil	--	121000.0	-0.09	*
<i>Rosmarinus officinalis</i>	Essential Oil	18000.0	93000.0	-0.69	*
<i>Rosmarinus eriocalyx</i>	Shoot	1590.0	2670.0	-0.06	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus x mendizabali</i>	Shoot	850.0	1475.0	-0.1	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus officinalis</i>	Shoot	1885.0	3920.0	-0.01	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus officinalis</i>	Leaf	--	160.0	-0.25	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaïd, M.H. 1994. Analysis and Biological Activity of the Essential Oil of <i>Rosmarinus officinalis</i> L. from Egypt. Flavour and Fragrance J. 9: 29-33.
<i>Rosmarinus officinalis</i>	Shoot Essent. Oil	--	76300.0	1.0	*
<i>Rosmarinus eriocalyx</i>	Shoot	1590.0	2670.0	-0.06	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Salvia gilliesii</i>	Shoot	--	60.0	-0.16	Velasco-Negueruela, A. et al. 1993. The Essential Oil of <i>Salvia gilliesii</i> Benth. J. Ess. Oil Res. 5: 319-320.
<i>Salvia sclarea</i>	Plant	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
<i>Salvia officinalis</i>	Leaf Essent. Oil	44000.0	458000.0	2.01	*
<i>Salvia canariensis</i>	Leaf	--	28.0	-0.25	Casnigueral, S., Iglesias, J., Vila, R., Virgili, A. and Ibanez, C. 1994. The Essential Oil from Leaves of <i>Salvia canariensis</i> L. Flav. & Frag. J. 9: 201-204. S. Canigueral, Facultat de Farmacia, Universitat de Barcelona, Ave. Diagonal 643, E-08028, Barcelona Spain
<i>Salvia officinalis</i>	Leaf	--	9324.0	-0.04	*
<i>Salvia officinalis</i>	Pericarp Essent. Oil	--	229000.0		*
<i>Salvia triloba</i>	Plant	160.0	5040.0	1.91	*
<i>Salvia officinalis</i>	Essential Oil	76000.0	305000.0	0.54	*
<i>Sassafras albidum</i>	Leaf	--	--	-0.25	*

Satureja obovata	Leaf	--	2040.0	-0.2	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. <i>Phytochemistry</i> 35(1): 83.
Satureja obovata	Leaf	--	2040.0	-0.2	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. <i>Phytochemistry</i> 35(1): 83.
Satureja douglasii	Plant	2392.0	5941.0	2.37	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>
Satureja obovata	Leaf	--	1225.0	-0.22	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. <i>Phytochemistry</i> 35(1): 83.
Satureja montana	Plant	5.0	75.0	-0.62	*
Satureja obovata	Shoot	2510.0	4025.0	-0.01	Fitoterapia No.60: 277.
Satureja obovata	Leaf	--	2660.0	-0.19	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. <i>Phytochemistry</i> 35(1): 83.
Satureja hortensis	Plant	--	--		List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.</i>
Sideritis pauli	Shoot	--	3.0	-0.16	Burzaco, A., Velasco-Negueruela, A. and Perez-Alonso, M.J. 1992. Essential Oil Analysis of <i>Sideritis pauli</i> Pau. <i>FFJ7</i> : 47-8. 1992.
Sideritis athoa	Shoot	--	0.5	-0.16	Ozek, T., Baser, K.H.C. and Tumen, G. 1993. The Essential Oil of <i>Sideritis athoa</i> Papanikolaou Et Kokkini. <i>J. Ess. Oil Res.</i> 5: 669-670.
Sideritis scardica	Shoot	--	75.0	-0.15	Menkovic, N., et al. 1991. The Essential Oil of <i>Sideritis scardica</i> . <i>Pl. Med.</i> 57. Suppl. 2. pp. A137-A132.
Stevia rebaudiana	Shoot	--	17.0	-0.16	Kinghorn, A. D. (Ed.) 2002. <i>Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia.</i> Taylor & Francis. New York, NY. 211 pp.
Stevia rebaudiana	Flower	--	17.0	-0.97	Kinghorn, A. D. (Ed.) 2002. <i>Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia.</i> Taylor & Francis. New York, NY. 211 pp.
Tanacetum parthenium	Fruit Essent. Oil	--	189000.0		*
Tanacetum parthenium	Shoot	--	24.0	-0.16	*
Tanacetum vulgare	Leaf	--	1800.0	-0.21	*
Tanacetum parthenium	Leaf Essent. Oil	--	201000.0	0.41	*
Tanacetum parthenium	Essential Oil	--	442000.0	1.34	*
Teucrium oxylepis	Shoot	--	0.06	-0.16	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Teucrium gnaphalodes	Shoot	--	6.0	-0.16	Perez-Alonso, M.J. Velasco-Negueruela, A. and Lopez-Saez, J.A. 1993. The Essential Oils of Two Iberian <i>Teucrium</i> Species. <i>J. Ess. Oil Res.</i> 5: 397-402.
Teucrium scorodonia	Shoot	--	0.28	-0.16	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Teucrium oxylepis	Shoot	--	0.22	-0.16	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Teucrium salviastrum	Shoot	--	--		Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Teucrium asiaticum	Shoot	--	0.1	-0.16	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
Teucrium polium	Shoot	--	1.0	-0.16	Perez-Alonso, M.J. Velasco-Negueruela, A. and Lopez-Saez, J.A. 1993. The Essential Oils of Two Iberian <i>Teucrium</i> Species. <i>J. Ess. Oil Res.</i> 5: 397-402.
Teucrium pseudoscorodonia	Shoot	--	0.1	-0.16	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.

Teucrium polium	Plant	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
Thuja occidentalis	Branches	--	--		*
Thymus zygis	Shoot	--	19.0	-0.16	Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEO5: 153-8.
Thymus longicaulis	Shoot	--	--	-0.16	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. J. Ess. Oil Res. 5: 291-5.
Thymus longicaulis	Shoot	--	3.0	-0.16	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. J. Ess. Oil Res. 5: 291-5.
Thymus saturejoides	Shoot	--	10.0	-0.16	Tantaoui-Elaraki, A., Lattaoui, N., Errifi, A. and Benjlali, B. 1993. Composition and Antimicrobial Activity of the Essential Oils of Thymus broussonettii, T. zygis and T. saturejoides. J. Ess. Oil Res. 5: 45-53.
Thymus orospedanus	Plant	--	718.0	-0.29	J. Nat. Prod.
Thymus broussonettii	Shoot	--	--	-0.16	Tantaoui-Elaraki, A., Lattaoui, N., Errifi, A. and Benjlali, B. 1993. Composition and Antimicrobial Activity of the Essential Oils of Thymus broussonettii, T. zygis and T. saturejoides. J. Ess. Oil Res. 5: 45-53.
Thymus capitatus	Plant	--	--		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Thymus x citriodorus	Plant	--	20.0	-0.64	Stahl-Biskup, E. and Holthuijzen, J. 1995. Essential oil and glycosidally bound volatiles of lemon-scented thyme, Thymus x citriodorus (Pers.) Schreb. Flav. & Fragr. J. 10: 225-229.
Thymus zygis	Shoot	0.1	390.0	-0.14	De Cunha, A.P. and Salguiero, L.R. 1991. The Chemical Polymorphism of Thymus zygis ssp. sylvestris from Central Portugal. J. Ess. Oil Res. 3: 409-12.
Thymus riararum	Shoot	--	25.0	-0.16	Iglesias, J., Vila, R., Canigual, S., Bellakdhar, and Idrissi, A. 1991. Analysis of the Essential Oil of Thymus riararum. J. Ess. Oil Res. 3: 43-4.
Thymus mastichina	Plant	1.0	450.0	-0.43	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Thymus funkii	Shoot	--	1135.0	-0.11	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 zygis	Shoot	--	19.0	-0.16	Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEO5: 153-8.
Thymus longicaulis	Shoot	--	3.0	-0.16	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. J. Ess. Oil Res. 5: 291-5.
Thymus vulgaris	Plant	5.0	45.0	-0.63	J. Ethnopharmacology, 39: 167.
Thymus cilicicus	Shoot	--	940.0	-0.12	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.
Thymus capitatus	Shoot	--	9.0	-0.16	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 funkii	Shoot	--	1135.0	-0.11	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.
Vitex agnus-castus	Leaf	--	--		Jim Duke's personal files.
Vitex agnus-castus	Fruit	80.0	800.0	0.66	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Vitex agnus-castus	Flower	--	--		Jim Duke's personal files.
Zingiber officinale	Rhizome	1.0	60.0		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Zingiber officinale	Rhizome Essent. Oil	--	1200.0	1.0	*