

Essential_Oil_Technical_Data_1988.txt

ESSENTIAL OIL TECHNICAL DATA

Name	Bot. name.	Constituents	Solubility
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Angelica	<i>A. archangelica</i>	phellandrene; valeric acid	6 vols 90% EtOH
Anise	<i>P. anisum</i>	80-90% anethole; methylchavicol	3 vols EtOH; ether; chloroform
Asarum	<i>A. canadense</i>	pinene; methyleugenol	2 vols 70% EtOH
Balm	<i>M. officinalis</i>	chiefly citral	EtOH
Basil	<i>O. basilicum</i>	methylchavicol; eucalyptol; linalool	2 vols 80% EtOH ether; chloroform
Calamus	<i>A. calamus</i>	76% beta-asarone	EtOH
Caraway	<i>C. carvi</i>	53-63% carvone; d-limolene	1 vol 90% EtOH; 8 vols 80% EtOH
Cinnamon	<i>C. cassia</i>	80-90% cinnamaldehyde	EtOH; glac. acetic acid
Citronella	<i>C. nardus</i>	25-50% citronellal 25-45% geraniol	10 vols 80% EtOH
Clove	<i>E. caryophyllata</i>	82-87% eugenol	EtOH; ether; glac. acetic acid
Dill	<i>A. graveolens</i>	50% carvone; apiole	1 vol 90% EtOH

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Eucalyptus	<i>E. globulus</i>	70-80% eucalyptol; alpha-pinene	abs EtOH; oils 5 vols 70% EtOH
Fennel	<i>F. vulgare</i>	50-60% anethole; 20% fenchone	1 vol 90% EtOH; ether; chloroform
Geranium	<i>P. odoratissimum</i>	geraniol esters (geranyl tiglate)	3 vols 10% EtOH; ether; chloroform
Ginger	<i>Z. officinale</i>	l-zingiberene; d-camphene	ether; carbon disulfide
Hops	<i>H. lupulus</i>	65-70% humulene	ether
Hyssop	<i>H. officinalis</i>	50% pinene	2-4 vols 80% EtOH
Juniper	<i>J. communis</i>	pinene; cadinene; camphene; terpineol	4 vols EtOH; amyl alcohol; chloroform
Lavender	<i>L. officinalis</i>	30-40% esters (linalyl acetate)	4 vols 70% EtOH absolute EtOH
Lemon	<i>C. limonum</i>	90% limonene	3 vols EtOH; glac. acetic acid
Lemon grass	<i>C. citratus</i>	75-85% citral	3 vols 70% EtOH; ether; chloroform
Marjoram	<i>O. marjorana</i>	40% terpenes	2 vols 80% EtOH; ether; chloroform
Nutmeg	<i>M. fragrans</i>	60-80% d-camphene	1 vol EtOH;

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 myristicin; elemicin 3 vols 90% EtOH

Parsley	<i>P. hortense</i>	chiefly apiole	8 vols 80% EtOH; ether
Patchouli	Labiatae species	patchouli oil	ether
Pennyroyal	<i>M. pulegium</i> <i>H. pulegioides</i>	85% pulegone	3 vols 70% EtOH; ether; chloroform
Peppermint	<i>M. piperita</i>	>50% menthol	4 vols 90% EtOH
Rosemary	<i>R. officinalis</i>	>10% borneol	10 vols 80% EtOH
Rue	<i>R. graveolens</i>	90% methyl nonyl ketone	3 vols 70% EtOH
Sandalwood	<i>S. album</i>	90% alcohols (santalol)	5 vols 70% EtOH
Sassafras	<i>S. albidum</i>	80% safrole	2 vols 90% EtOH
Spearmint	<i>M. spicata</i>	>50% carvone	equal vol 80% EtOH
Sweet Bay	<i>L. nobilis</i>	eucalyptol; eugenol	EtOH
Tansy	<i>T. vulgare</i>	thujone; borneol; camphor	EtOH; ether; chloroform
Thyme	<i>T. vulgaris</i>	20-40% thymol	2 vols 80% EtOH
Valerian	<i>V. officinalis</i>	bornyl esters (acetic, formic, isovaleric)	EtOH; ether; chloroform
Vetiver	<i>V. zizanioides</i>	8-35% sesquiterpene ketones	1-3 vols 80% EtOH; oils

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White Cedar	<i>T. occidentalis</i>	d-thujone; l-fenchone	4 vols 70% EtOH
Wormwood	<i>A. absinthium</i>	Thujyl alcohol; thujyl acetate; thujone	2 vols 80% EtOH; ether
Yarrow	<i>A. millefolium</i>	cineol	EtOH; ether

Abbreviations:

EtOH - ethyl alcohol HOAc - acetic acid

Properties of constituents:

Compound	Property
Anethole	carminative
Apiole	carminative
Borneol	perfumery, incense
Bornyl esters	sedatives, antiseptics, counterirritants
Camphor	anti-infective, counterirritant, antipruritic
Carvone	flavoring, perfumery, carminative
Cinnamaldehyde	flavoring, perfumery
Citral	flavoring, perfumery
Citronellal	insect repellent
Eucalyptol	flavoring
Eugenol	dental analgesic, insect attractant
Fenchone	counterirritant, perfumes
Geraniol	perfumery, insect attractant,
Humulene	urinary antiseptic (?)
Limonene	skin irritant, sensitizer
Linalool	perfumery
Menthol	antipruritic, flavoring, carminative, anesthetic
Myristicin	mild hallucinogen

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Phellandrene	fragrances
Pinene	manufacture of organic compounds
Safrole	topical antiseptic, pediculicide, carminitive
Santalol	in perfumes, soaps, detergents
Thujone	[ingestion can cause convulsions]
Thymol	antifungal, antithelmintic, antiseptic
Valeric acid	intermediate in perfumery

This information may be of use to some more advanced herbalists. The solubility information will be of use to anyone who prepares essential oils. This is for informational purposes only. I do not endorse the use of any of these agents, especially by the untrained. Many of these agents are very toxic.

Prepared by Gary Ross [CIS 73317,3317]

DB> Could you elaborate on the process of extracting essential oils? I
DB> have been trying to find a way to do this and have come up empty.....

One way is to soak flowers of the herb in Everclear or Vodka. You have to stick a bunch of flowers in a container with the alcohol and squish it around <technical description, huh?>. Take the flowers out after about 15 minutes of squishing and squeeze the excess liquid from them. Put the same amount of flowers in the same mixture and do it again. The alcohol is extracting the oil of these flowers and you have to have LOTS of flowers.

So you ask, howdy a get the oil out of the alcohol? Simple, actually. Alcohol takes a lot to freeze it. Oil freezes easy and is lighter than the alcohol. Put the whole thing in the freezer and after a few hours or so, you should be able to skim whatever frozen essential oil you have in the mixture, right off the top! If you can re-use the alcohol for the same flower a few times. After a while it gets a bit grungy and has to be

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disposed of.

WARNING!!! Do NOT put nightshade flowers in such a mixture...if you touch this mixture with nightshade, chances are that you'll be pushing up daisies!

Seriously though, if you know the herb is poisonous, be careful with extracting the essential oil. I have extracted nightshade oil and one time I had a pinhole in the rubber glove I was using. Thought I'd died. I was not a happy camper.

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Title:Scented oils

Keywords:herb, nonfood, oil, preparation, method, info

Amounts: Use 4 oz dried herbs or 8 oz fresh herbs to 1 pint of oil. At dincture of benzoin (1/4 tsp per cup of finished oil) or Vitamin E (400 IU per cup) Oils will last about 1 year. Store in cool dark place.

Method 1.

1. Rub fresh or dry herbs between palms of hands to break down herbs.
2. Place herbs in glass jar.
3. Pour chosen oil(s) over herbs. Cover with tight lid.
4. Every day shake jar so herbs and oil mix together well. Do this for at least two weeks.
5. After 2 weeks strain by covering kitchen colander with cheesecloth. Squeeze herbs in cheesecloth to wring out any remaining oil.
6. Pour contents of bowl into clean glass jar and cover tightly.

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7. Add tincture of benzoin or Vitamin E as preservative.

Method 2. (quicker)

1. Rub fresh or dry herbs between palms of hands to break down herbs.
2. Place bruised herbs in oil in a pan. Slowly heat and cook herbs gently until crisp, about 1/2 to 1 hour. Cook roots first, then add leaves and flowers last. Keep pot covered.
3. Every day shake jar so herbs and oil mix together well. Do this for at least two weeks.
4. After 2 weeks strain by covering kitchen colander with cheesecloth. Squeeze herbs in cheesecloth to wring out any remaining oil.
5. Pour contents of bowl into clean glass jar and cover tightly.
6. Add tincture of benzoin or Vitamin E as preservative.

Method 3. Slower, but gies better oil. Ayurvedic method of making herbal oils.

1. Rub fresh or dry herbs between palms of hands to break down herbs.
2. Place 1 part herbs, 4 parts oil and 16 part water in a pan. Gently heat all ingredients together until water is evaporated.
3. Every day shake jar so herbs and oil mix together well. Do this for at least two weeks.
4. After 2 weeks strain by covering kitchen colander with cheesecloth. Squeeze herbs in cheesecloth to wring out any remaining oil.
5. Pour contents of bowl into clean glass jar and cover tightly.
6. Add tincture of benzoin or Vitamin E as preservative.

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