

Essential Oils

Essential oils (extracts from plants) have been used for healing since before the beginning of recorded history. One of the leading experts on essential oils, Dr. David Stewart, says the following in his book *Healing Oils of the Bible*, page xvi:

“Compare this with essential oils. They have no serious side effect---none that are deadly. They can and do effect true healings. When more than one is used at once, they work in harmony. Dangerous inter-reactions do not occur. None one has ever died from a properly applied essential oil. They are inherently safe. That is why anyone can use them without the supervision or prescription of a doctor. Meanwhile, people with chronic diseases are cured and no longer need oils or any other medicine.”

Even though essential oils predate the FDA by centuries and thus should be grandfathered from regulation, the FDA has taken upon itself the right to control their use ignoring the centuries of documentation of their effects. The FDA website states:

What's the "intended use"?

Under the law, how “aromatherapy” products are regulated depends mainly on how they are intended to be used.

FDA determines a product’s intended use based on factors such as claims made in the labeling, on websites, and in advertising, as well as what consumers expect it to do. We also look at how a product is marketed, not just a word or phrase taken out of context. Finally, we make decisions on a case-by-case basis.

Is it a cosmetic?

If a product is intended only to cleanse the body or to make a person more attractive, it’s a cosmetic. So, if a product such as a shower gel is intended only to cleanse the body, or a perfume or cologne is intended only to make a person smell good, it’s a cosmetic.

The law doesn’t require cosmetics to have FDA approval before they go on the market. But FDA can take action against a cosmetic on the market if we have reliable information showing that it is unsafe when consumers use it according to directions on the label, or in the customary or expected way, or if it is not labeled properly.

To learn more, see [“FDA Authority Over Cosmetics.”](#)

Is it a drug?

If a product is intended for a therapeutic use, such as treating or preventing disease, or to affect the structure or function of the body, it’s a drug. For example, claims that a product will relieve colic, ease pain, relax muscles, treat depression or anxiety, or help you sleep are drug claims.

Such claims are sometimes made for products such as soaps, lotions, and massage oils containing “essential oils” and marketed as “aromatherapy.” The fact that a fragrance material or other ingredient comes from a plant doesn’t keep it from being regulated as a drug.

Under the law, drugs must meet requirements such as FDA approval for safety and effectiveness before they go on the market. To find out if a product marketed with drug claims is FDA-approved, contact FDA’s Center for Drug Evaluation and Research (CDER), at druginfo@fda.hhs.gov.

<http://www.fda.gov/Cosmetics/ProductsIngredients/Products/ucm127054.htm>

When the FDA determines that any product is intended to treat or prevent disease or affect the structure or function of the body, one must purchase from the FDA the right to say that it does so. It costs millions of dollars in a process (New Drug Application) to obtain permission to say something works in spite of that already being proven in multiple scientific studies. The studies are not considered by the FDA to be meaningful until someone has purchased from the FDA the right to say they are meaningful.

For example, this information is available in *The Chemistry of Essential Oils* by David Stewart, Care Publications, 2006:

*In general, pure essential oils can be subdivided into two distinct groups of chemical constituents; the **hydrocarbons** which are made up almost exclusively of terpenes (monoterpenes, sesquiterpenes, and diterpenes), and the **oxygenated compounds** which are mainly esters, aldehydes, ketones, alcohols, phenols, and oxides.*

***Terpenes** - inhibit the accumulation of toxins and help discharge existing toxins from the liver and kidneys.*

- ***Sesquiterpenes** are antiseptic and anti-inflammatory. They work as a liver and gland stimulant and contain caryophyllene and valencene. Research from the universities of Berlin and Vienna show increased oxygenation around the pineal and pituitary glands. Further research has shown that sesquiterpenes have the ability to surpass the blood-brain barrier and enter the brain tissue. Other sesquiterpenes, like chamazulene and farnesol, are very high in anti-inflammatory and anti-bacterial activity. Chamazulene may be found in chamomile, tansy, and yarrow.*
- ***Farnesene** is anti-viral in action.*
- ***Limonene** has strong anti-viral properties and has been found in 90% of the citrus oils.*
- ***Pinene** has strong antiseptic properties and may be found in high proportions in the conifer oils such as pine, fir, spruce, and juniper.*
- *Other terpenes include camphene, cadinene, cedrene, dipentene, phellandrene, terpinene, sabinene, and myrcene.*

***Esters** - are the compounds resulting from the reaction of an alcohol with an acid (known as esterification). Esters are very common and are found in a large number of essential oils. They are anti-fungal, calming and relaxing.*

- ***Linalyl acetate** may be found in bergamot, Clary sage, and lavender*
- ***Geraniol acetate** may be found in sweet marjoram.*
- *Other esters include bornyl acetate, eugenol acetate, and lavendulyl acetate.*

***Aldehydes** - are highly reactive and characterized by the group C-H-O (Carbon, Hydrogen, Oxygen). In general, they are anti-infectious with a sedative effect on the central nervous system. They can be quite irritating when applied topically (citral being one example), but may have a profound calming effect when inhaled.*

- ***Citral** is very common with a distinctive antiseptic action. It also has an anti-viral application as with melissa oil when applied topically on herpes simplex.*
- ***Citronellal** is also very common and has the same lemony scent as citral. Along with citral and neral, citronellas may be found in the oils of melissa, lemongrass, lemon, mandarin, lemon-scented eucalyptus, and citronella.*

- *Elements of aldehydes have also been found in lavender and myrrh. Other aldehydes include benzaldehyde, cinnamic aldehyde, cuminic aldehyde, and perillaldehyde.*
Ketones - are sometimes mucolytic and neuro-toxic when isolated from other constituents. However, all recorded toxic effects come from laboratory testing on guinea pigs and rats. No documented cases exist where oils with a high concentration of ketones (such as mugwort, tansy, sage, and wormwood) have ever caused a toxic effect on a human being. Also, large amounts of these oils would have to be consumed for them to result in a toxic neurological effect. Ketones stimulate cell regeneration, promote the formation of tissue, and liquefy mucous. They are helpful with such conditions as dry asthma, colds, flu and dry cough and are largely found in oils used for the upper respiratory system, such as hyssop, Clary sage, and sage.
 - **Thujone** is one of the most toxic members of the ketone family. It can be an irritant and upsetting to the central nervous system and may be neuro-toxic when taken internally as in the banned drink Absinthe. Although it may be inhaled to relieve respiratory distress and may stimulate the immune system, it should only be administered by an educated and professional aromatherapist.
 - **Jasmone** (found in jasmine) and **fenchone** (found in fennel) are both non-toxic.
 - Other ketones include camphor, carvone, menthone, methyl nonyl ketone, and pinacamphone.
- Alcohols** - are commonly recognized for their antiseptic and anti-viral activities. They create an uplifting quality and are regarded as non-toxic.
- **Terpene Alcohols** stimulate the immune system, work as a diuretic and a general tonic, and are anti-bacterial as well.
 - **Linalol** can help relieve discomfort. It may be found in rosewood and lavender.
 - **Citronellol** may be found in rose, lemon, eucalyptus, geranium, and others.
 - **Geraniol** may be found in geranium as well as palmarosa.
 - **Farnesol** may be found in chamomile. It is also good for the mucous.
 - Other terpene alcohols include borneol, menthol, nerol, terpineol, (which Dr. Gattefosse considered to be a decongestant), vetiverol, benzyl alcohol, and cedrol.
 - **Sesquiterpene Alcohols** are anti-inflammatory, anti-bacterial, anti-mycotic, and ulcer-protective (preventative).
 - **Bisabolol** is one of the strongest sesquiterpene alcohols. It may be found in chamomile oils where it also functions well as a fixative.
- Phenols** - are responsible for the fragrance of an oil. They are antiseptic, anti-bacterial, and strongly stimulating but can also be quite caustic to the skin. They contain high levels of oxygenating molecules and have antioxidant properties.
- **Eugenol** may be found in clove and cinnamon oil.
 - **Thymol** is found in thyme and may not be as caustic as other phenols.
 - **Carvacrol** may be found in oregano and savory. Researchers believe it may possibly contain some anti-cancerous properties.
 - Others in the phenol family include methyl eugenol, methyl chavicol anethole, safrole, myristicin, and apiol.
- Oxides** - According to The American Heritage™ Dictionary of the English Language, an oxide is "a binary compound of an element or a radical with oxygen".

- *Cineol (or eucalyptol) is by far the most important member of the family and virtually exists in a class of its own. It is anesthetic, antiseptic, and works as an expectorant. Cineol is well known as the principal constituent of eucalyptus oil. It may also be found in rosemary, cinnamon, melissa, basil, and ravensara.*
- *Other oxides include linalol oxide, ascaridol, bisabolol oxide, and bisabolone oxide. All pure essential oils have some anti-bacterial properties. They increase the production of white blood cells, which help fight infectious illnesses. It is through these properties that aromatic herbs have been esteemed so highly throughout the ages and so widely used during the onsets of malaria, typhoid, and of course, the epidemic plagues during the 16th century. Research has found that people who consistently use pure essential oils have a higher level of resistance to illnesses, colds, flues, and diseases than the average person. Further indications show that such individuals, after contracting a cold, flu, or other illness, will recover 60-70 percent faster than those who do not use essential oils.*

Dr. Tennant's BioTerminal Oils contain an abundance of the following constituents:

BioTerminal Oil	Acupuncture Association	Abundance of Chemical
Head	Sympathetic/Parasympathetic	Alcohols
Neck	Lung/Large Intestine	Sesquiterpenes
Chest	Heart/Small Intestine	Phenolics
Stomach	Spleen/Stomach	Monoterpenes
Pelvis	Kidney/Bladder	Sesquiterpenes
Crown/Base	Liver/Gall Bladder	Alcohols, Monoterpenes, Phenolics

However, Dr. Tennant does not claim that the BioTerminal oils have any therapeutic effects whatsoever, but are only intended to cleanse the body as allowed by FDA regulations (see above FDA statement). They may be used as perfumes and give pleasant odors. Users should not expect any therapeutic use, such as treating or preventing disease, or to affect the structure or function of the body.

Note:

Chinese acupuncture relates various acupuncture meridians to a predominance of certain emotions. These relationships are noted on the labels of the BioTerminal essential oils only as information and it is not claimed that any essential oil has any effect on any emotion.