The following safety guidelines for using essential oils are provided to help insure that your experiences with essential oils are positive. Remember that essential oils are extremely concentrated plant extracts, and as such must be used much differently than the herbs themselves.

1. Dilution
Correct dilution of essential oils is the most important element in insure that they are used in a positive way. (Aroma Shield considers it so important that recommended dilution rates are printed on our oil bottle labels.) The first thing to understand about diluting essential oils—as their name implies—is that they do NOT mix with water. Never attempt to dilute essential oils with water. Even more importantly, never attempt to reduce a skin reaction caused by essential oil—redness, stinging, burning or a rash—by applying water. Water only drives the oils deeper into the skin, often making the reaction worse.

A high quality vegetable oil or vegetable oil mix is the ideal way to dilute essential oils. The vegetable oil used to dilute essential oils is referred to as “carrier oil.” Ideal carrier oils include grapeseed oil, coconut oil, olive oil (although it does have a stronger odor), and jojoba nut oil. Other oils that work well include hazelnut, sesame and almond oils. However, if you have any allergic sensitivities to nuts, do NOT use the nut oils.

There is conflicting information regarding the proper dilution of essential oils for topical use. Some sources insist that ALL essential oils must be heavily diluted before applying to the skin. Others claim that some essential oils can safely be used ‘neat,’ or with no dilution. Adding to the complexity is the fact that every person has a unique tolerance level for essential oils, and there is huge variation between oils when it comes to sensitization.

‘Sensitization’ can mean anything from mild discomfort on the skin, to severe skin reactions that permanently sensitize a person to an essential oil. This more severe reaction can create a semi-allergic condition that triggers a strong systemic reaction anytime a person is exposed to that particular oil. For these reasons it is important that a person begin topical applications slowly and carefully, using only diluted oils at first.

Here are some important guidelines about dilution and safe topical application of essential oils:

• A skin patch test should always be performed whenever using an oil for the first time. This is done by placing one drop of oil (diluted according to the Aroma Shield label) on an area of sensitive skin, typically the inside crook of the elbow. Allow it to remain for 12-24 hours and check to see if there is any reaction. If redness or soreness develops, either avoid that oil, or dilute it further and retest.

• A few Aroma Shield oils specify ‘neat’ for their dilution instructions. This means the oil can be used neat (without dilution) in small amounts (1-3 drops) and on small areas (1-3 square inches). These oils include cedarwood, Roman chamomile, helichrysum, lavender, myrrh, rosewood and sandalwood. A small number of Aroma Shield blends also carry this classification. However, if the quantity of oil to be used or the area to be covered exceeds the above minimal levels, the oil should be diluted before application. For example, when used in massage oils, essential oils are typically diluted to 5% concentrations (1 drop essential oil to 19 drops carrier oil).

• Redheads, blondes, Asians and very fair-skinned people tend to be more sensitive to the oils.

• The possibility of a sensitivity reaction is reduced by avoiding constant use of the same oil over time. Vary the oils used every few days. Also, limit daily use of essential oils to 10 days or less. Take a one week break from daily oil applications at least every 10 days.

• Oils should be fully diluted especially for initial applications. General tolerance to essential oils increases slowly with use, as long as no sensitivity reaction occurs. With time and experience a person will know better what he/she can safely tolerate.

• Always avoid using essential oils on warmed skin (following exercise, after a warm bath or shower, or after sunbathing), since this opens the pores and makes the dermis much more sensitive to the oils.
• Be particularly careful when applying essential oils on or around broken skin, such as cuts, scrapes or burns. Sensitization is more likely to occur when the skin is broken or damaged in some way.

• Some essential oils must ALWAYS be substantially diluted before topical use. They include: cinnamon bark, clove bud, hyssop, lemongrass, oregano, thyme, thyme linalool, and wintergreen. (Again, Aroma Shield labels specify recommended dilution rates).

• Most essential oils can be diluted 50% or more without significantly reducing their therapeutic influence. Not only is this a wise practice for safety reasons, it also has an economic benefit, doubling the amount of useable oil.

• For many people, the therapeutic influence of essential oils is somewhat ‘homeopathic,’ meaning miniscule amounts of essential oil can stimulate powerful positive responses in the body. Most clinical research on the therapeutic value of essential oils is done with diluted essential oils, using concentrations as low as 5-10%.

• The safest place to apply essential oils topically is always the soles of the feet. This is also ideal for absorption, since this area has a higher density of skin pores than any other place on the body. Oils applied to the soles of the feet are absorbed through the skin and into the bloodstream within 30 minutes.

2. Storage

Generally speaking, essential oils are antioxidant in nature, meaning they oxidize very slowly. However, when exposed to direct sunlight, oxygen in the air, and temperatures above 70° F, the potential for oxidation rises dramatically. Essential oils are best kept in a dark room, in tightly-closed, child-proof, amber glass containers and, if possible, at cool temperatures (50°-60° F.).

Additionally, all essential oil storage containers should have an integral orifice reducer in the neck of the bottle. This simplifies dispensing in drops, but also protects against the accidental ingestion of a large quantity of oil by a child. For some of the thickest essential oils such as vetiver, sandalwood and patchouli, the orifice reducer may have to be removed in order to get oil out of the bottle.

The amount of air in the container should be minimal, and smaller containers should be used if necessary to reduce exposure to air in the container.

When stored in the above conditions, most essential oils will last for several years. However, even when these procedures are followed, if the essential oil is not completely pure and has been adulterated in some way, the oil changes usually within a year and acquires a sharp, rancid aroma. In this condition, the oils may be toxic and should not be used.

3. Children

Essential oils should not be used at all on children under 2 years of age, unless directed by a licensed health professional. Also, unless determined otherwise through a skin test, the only safe place to apply essential oil topically to children is on the soles of the feet. Because of their smaller physical size and more sensitive skin, the amounts of essential oil used on children should be reduced to at least one-third the amount used on adults. Here again, skin patch tests should be performed to be sure there is no negative reaction.

Gentler oils that are safer to use on children include cedarwood, Roman chamomile, helichrysum, lavender, palmarosa, rose, rosewood, and sandalwood.

Due to its menthol content, peppermint can be dangerous to very young children. It is a known pharmacological fact that menthol, if used around the nose and throat of very young children can cause spasms of the larynx resulting in suffocation. Peppermint oil is about 40% natural menthol. While there are dozens of other (potentially mitigating) organic compounds also found in pure peppermint oil, this high percentage of menthol warrants extra precaution around very young children. Never use peppermint oil near the nose or throat of a child under 30 months of age.

4. Photosensitivity

Some essential oils are photosensitive, meaning they absorb and enhance the energy of UV rays. If a photosensitizing oil is applied to the skin and then exposed to sunlight or UV radiation (i.e. tanning beds) within 12-16 hours, the skin will actually burn faster and deeper. In severe cases, skin pigment is permanently changed, leaving dark blotches. Note, however, that no harm occurs to the skin surface from application of a photosensitive oil as long as that skin is not exposed to sunlight or UV radiation for at least 12-16 hours after application. We recommend a ‘waiting period’ of 24 hours.

(Aroma Shield labels indicate if an oil is photosensitizing or not. Both for single oils and
Most photosensitizing oils are citrus oils that are mechanically expressed from the peel of the fruit, rather than steam distilled. Chief among the photosensitizing oils are bergamot, lime, and bitter orange, which are strongly photosensitive. Lemon and grapefruit are considered mildly photosensitive, and sweet orange and tangerine are usually considered non-photosensitive. Dill seed essential oil is a steam-distilled essential oil that is considered mildly photosensitizing.

5. Eyes, ears, sensitive skin and mucous membranes
Never apply essential oils near the eyes or the ear/nostril openings. This can result in serious injury and painful stinging. These locations—and all mucous membranes in general—are extremely sensitive to essential oils and great care should be taken to insure that no essential oils touch them. Additionally, the most sensitive skin areas, including behind the knees, the crotch areas, the inner side of the elbows, the underarms, and any areas of skin folds should be completely avoided when applying essential oils topically. As mentioned, the safest—and very effective—location for applying essential oils is on the soles of the feet.

For topical applications intended to treat the eye, oils should be carefully and minimally applied above the eyebrow. (Important note: even after washing hands/fingers that have been exposed to essential oils, residues still remain in the skin, and if those hands/fingers then touch or rub the eyes, there is a good probability of stinging or discomfort.)

If essential oil should accidentally get into the eye, the challenge is to neutralize the oil and get it out quickly. Since water can actually drive the oils deeper, it should be avoided. The eyes should be treated or flushed with an oil-friendly (lipophylic) liquid. Some have suggested whole-fat milk as an option; most suggest a pure vegetable oil (e.g. olive or sunflower oil), applied carefully to the eye with a dropper as a flushing/absorbing agent. In any case, if discomfort is not relieved quickly, seek emergency medical aid.

For ear infections, oils should never be applied in the ear. They can be applied carefully behind the ear lobes and down along the rear of the jaw on each side. For nasal infections, oils can be inhaled or applied carefully above the eyebrows.

6. Baths
Never put neat or undiluted essential oils in a bath. The oil will not dissolve in the water but will float, full strength, on top of the water. When a person enters the bath, the undiluted oil will stick to the very sensitive skin in the genital/crotch area, causing very unpleasant, even serious, irritation, because warm bath water will increase the irritation process.

Instead, thoroughly mix 10-20 drops of essential oil into 1-2 tablespoons of non-iodized salt or Dead Sea salt. Mix the oil and salt well for at least 1 minute before adding to bath. This should be sufficient for one bath. Add the salt mixture slowly, while you are in the bath.

7. Flammability
Essential oils are volatile oils, meaning they have the potential to ignite. As such, they are flammable, just as many petroleum distillates are flammable. Never use essential oils near an open flame. While flash points vary widely for essential oils, the ones with the lowest ignition temperatures (and therefore the highest flammability) include conifer oils, eucalyptus oils, citrus oils, peppermint, rosemary and frankincense.

8. Pregnancy
Because many essential oils cause hormone-like effects, and because the hormonal state of a pregnant woman is so complex, essential oils should be avoided completely during pregnancy, unless directed by a licensed health professional experienced in essential oil chemistry.

Some essential oils can trigger a spontaneous labor response, so this is not a subject to take lightly. If you are pregnant, consult your doctor before using ANY essential oil.

Essential oils which are known to be particularly problematic during pregnancy, either because of their hormone-like effects or because they are natural abortifacients, include sweet basil, cedarwood, clary sage, clove, cypress, sweet fennel, hyssop, jasmine, juniper berry, sweet marjoram, myrrh, peppermint, rose, rosemary, sage, thyme and wintergreen.
9. Allergies and asthma
People with known allergies, including asthma, will be more sensitive to essential oils than others. In these cases extra care must be taken, using skin patch tests and additional dilution, to insure there is no allergic reaction to the oils.

Those who have a long history of using synthetic compounds found in commercial make-up and skin lotions may experience a skin reaction in the form of redness or rash which is not due to an allergy, but rather a reaction with the synthetic/petroleum compounds residues that are in the skin. In these cases, discontinue use of the make-up, lotion, etc for at least 1 week before using the oils again.

Asthma presents a challenge for essential oil use in that all essential oils have relatively strong aromas, and these aromatic molecules when inhaled, do sometimes trigger asthmatic responses. While certain essential oils may provide some benefit to asthmatics, it is best to apply those oils topically rather than through inhalation until there is some degree of certainty that inhalation will not trigger an asthmatic response.

10. High Blood Pressure, Blood Thinners and Epilepsy
Some essential oils are known to be hypertensive, meaning they increase blood pressure. For those who are already struggling with hypertension, these oils should be carefully avoided. They include: hyssop, rosemary, rosemary verbenone, sage, and thyme.

A small number of essential oils have anti-coagulant properties and should therefore not be used by people taking blood thinners, such as aspirin, heparin, warfarin, etc. These include clove bud, ginger and wintergreen.

The following oils should be completely avoided by anyone with epilepsy: sweet fennel, hyssop and sage.

11. Ingestion
Some doctors and very well-trained aromatherapists can safely prescribe beneficial regimens for ingesting essential oils, in diluted form, inside gelatin capsules. However, the complexities of ingesting essential oils are such that we recommend against it unless done under the care of a licensed health care professional with experience in this arena.

This oral approach to using essential oils is common in French medicine, and, when directed by skilled doctors, has often proven effective. Shirley Price, a world-renown English expert in the use of essential oils states: “It has become unsustainable on scientific grounds to maintain any opposition to ingestion of essential oils. Not all practitioners should prescribe for use in this way because the majority are not competent: it is the prejudice that needs to be addressed - and the inadequate training.”

Hence, our recommendation against ingesting oils stems not from a belief that it is inappropriate, but rather from our first-hand knowledge that safely doing so requires the individualized counsel of a trained health care professional.

To assist health care professionals in identifying oils that are generally safe for ingestion, Aroma Shield labels contain information classifying the contents as GRAS (generally regarded as safe by the FDA), GRAS/FA (approved both as GRAS and as a food additive/flavoring agent), FA (approved only as a food additive/flavoring agent), or none of the above.

12. Staining
Normally, within 10-15 minutes after topical (skin) application, essential oils will have absorbed into the skin sufficiently to wear clothing over the application area. However, all essential oils, because they are lipids (oils), will leave an oil spot if spilled on clothing. Additionally, some essential oils contain waxes and other pigmented substances that leave stains which may be difficult to remove from clothing. Blue tansy and German chamomile, in particular, contain chamazulene, a very deep blue biochemical that gives these two oils their characteristic blue color. (Note: Roman chamomile, as offered by Aroma Shield, does NOT contain chamazulene.) The Aroma Shield blend ReBalance contains blue tansy and should be used carefully to avoid stains. Other oils with dark constituents include patchouli and vetiver. Tangerine has a vivid orange color. If oils are accidentally spilled on clothing, the area should immediately be cleaned with alcohol.