

OIL PROPERTIES IN SOAP MAKING

Oils and their properties

The oils you choose to use in your soaps is what is going to produce the best properties in your soap. Each oil has a unique quality that will create such skin loving soaps, the oils you choose can create lather, rich moisture, it can make your soap hard, creates a whiter bar and so many other good qualities.

(Sweet) Almond Oil

Sweet Almond Oil is often used for super fattening soaps. It is a great moisturizer, makes a stable lather and helps condition the skin. Add 1 ounce per pound of fats to your soap batch at trace.

❖ Hard Bar	No
❖ Lather	Stable
❖ Conditioning	High

Aloe Vera Liquid, Aloe Vera Gel (not an Oil)

Aloe vera is used in creams and lotions. It's a well-known healing and soothing agent for damaged, dry skin. It is soothing and healing for burns, skin irritations, and raw open wounds. Liquid aloe vera may be added to cosmetic formulations, soaps, and straight on the skin.

❖ Hard Bar	No
❖ Lather	Stable
❖ Conditioning	No

Apricot Kernel Oil

Apricot kernel oil is often used for superfatting. It is also a good moisturizer and helps condition the skin. Use one or two ounces in every pound of fat at trace.

❖ Hard Bar	No
❖ Lather	Stable
❖ Conditioning	High

Argan Oil

Argan oil is easily absorbed into the skin, making it a fantastic oil to include in your soaps, haircare and other skincare formulations. It allows the skin to breathe, and is used in many

acne-fighting formulas. This makes it great for use as a base oil and super fatting oil. Being rare and expensive using from 5% to 20% of your formulation will go a long way or repairing your skin. Argan Oil is used in formulations of massage oils, soaps, lotions, creams, lip balms, scrubs, hair care products, and other bath related products.

- ❖ Hard Bar No
 - ❖ Lather None
 - ❖ Conditioning High
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Avocado Oil

Avocado oil is a great moisturizer and is often used for super fatting soaps. Avocado oil contains vitamins A, D, and E, which makes it healing as well as moisturizing. Try it in a gentle baby soap. Use up to 30% as base oil.

- ❖ Hard Bar No
 - ❖ Lather Stable
 - ❖ Conditioning High
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Beeswax

Beeswax has the sweet smell of honey. Beeswax makes a harder bar of soap and is also used in creams, lotions, lip balms and candle making. It contains a high percentage of unsaponifiables. At best, half of these substances participate in the normal soap making reaction. You can use it at about 1 oz per lb. of oils in your base oils to make your soaps harder.

- ❖ Hard Bar Yes
 - ❖ Lather Light
 - ❖ Conditioning Light
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Calendula Oil

Has many therapeutic benefits and is known to successfully heal a variety of types of skin damage. (burns, wounds, dry skin) To super fat soap use 1 2/3 tablespoons per 5 lbs. of soap at trace or use up to 20% added to other oils at the beginning of the soap making process.

- ❖ Hard Bar No
 - ❖ Lather None
 - ❖ Conditioning No
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Canola Oil

Canola oil is a good moisturizer but is less saturated than other fats, so it can be slow to saponify. Use it in place of more expensive oils like olive. Need to be mixed with other

saturated fats in order to speed up saponification. Non-fragrant oil that has emollient and potential antioxidant properties for skin and is a rich source of omega-3 and omega-6 fatty acids (Source: *British Journal of Nutrition*, May 2002, pages 489–499). Use as a base oil up to 50%.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	Light

Castor Oil

Castor oil is often used to super fat. It attracts and holds moisture in the skin. Use it in combination with other vegetable oils to produce a nice hard bar of soap. You can add a bit at trace for super fatting or add it to other oils at a rate of no more than 30% in the beginning of the soap making process.

❖ Hard Bar	No
❖ Lather	High
❖ Conditioning	Moderate

Cocoa Butter

Cocoa butter is used to make soaps harder. When used in soap as a super fatting oil it acts to lay down a protective layer which holds the moisture to the skin, so it is an excellent skin softener. It has a natural chocolate scent but it is also available in unscented versions. You can use it from anywhere about 1 ounce to a pound at trace, to 15% of your total base oils, depending on your preference.

❖ Hard Bar	Yes
❖ Lather	Stable
❖ Conditioning	High

Coconut Oil

Coconut oil makes soaps lather beautifully but can be drying when it makes up a large portion of your soap's fats. It will make a very hard, white bar of soap with abundant lather. It even lathers in very hard water or even sea water). Coconut oil is a saturated fat. Use it at a percentage of no more than 20-30% in your base oils.

❖ Hard Bar	Yes
❖ Lather	High
❖ Conditioning	Moderate

Cottonseed Oil

Cottonseed oil produces thick and lasting lather, in addition to having emollient properties. It can be vulnerable to spoilage depending on the season, so use less of this oil. Maximum recommended usage - 25% of total base oils.

❖ Hard Bar	No
❖ Lather	None
❖ Conditioning	No

Emu Oil

Emu Oil is reported to help heal skin tissues and help draw other ingredients (like mint) down into your skin so they are more effective. Use 1 ounce per pound at trace.

❖ Hard Bar	Yes
❖ Lather	Stable
❖ Conditioning	High

Evening Primrose Oil

Evening primrose oil is absorbed quickly into skin and provides essential fatty acids that are reported to help inhibit bacterial growth and encourage antibodies so the skin is better able to defend against infection or inflammation. It is not recommended as an additive in soaps made for oily complexions. Recommended Usage - 2 tablespoons per 5 pounds of soap, added at trace.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	High

Grapeseed Oil

Grapeseed oil is a lightweight oil that absorbs into the skin quickly without leaving a heavy greasy feeling. Used in soaps as a superfatting oil. Use one ounce per pound at trace.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	Moderate

Hazelnut Oil

Hazelnut is an excellent moisturizer for soaps. It is low in saturated fatty acids, so use other

more saturated fats to lessen your trace time and yield a harder bar. Maximum usage - 20% of total oils.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	High

Hempseed Oil

Hempseed oil is not as stable as some other oils and can spoil quickly. It creates a silky bar of soap even if it is only used to super fat your batch. It is a less saturated fat, and since it is prone to spoilage, keep it as a small percentage of your mix to avoid having a soft, squishy soap that may spoil in a few months. Usage - As a

Super fatting at 5% at trace or Base oil at 20-30% but no more than 40%.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	Moderate

Honey - (not an oil but can be used as an additive)

Honey is also a humectant, so it helps retain moisture on the skin in much the same way as glycerin. Use it at about 2 Tablespoons per pound of oils, added at trace.

❖ Hard Bar	No
❖ Lather	None
❖ Conditioning	No

Jojoba

Jojoba helps to promote a stable lather and is good at conditioning skin. Because of its expense, it's usually used to super fat soap batches or in shampoo bars. It is an excellent emollient for skin conditions like psoriasis, because it has a chemical composition very close to the skin's own sebum. It is suitable for all skin types, beneficial for spotty and acne conditions, and good for sensitive and oily skin. It also helps to unclog the pores and remove any embedded grime, restores and conditions hair. When using Jojoba in soap, limit its usage to one or two ounces per pound at trace. Jojoba naturally accelerates tracing in soap recipes. Used as a Super fatting oil.

❖ Hard Bar	No
❖ Lather	None
❖ Conditioning	High

Kukui Nut Oil

The Kukui nut is native to Hawaii and is high in linoleic acid. It is quickly absorbed into the skin. Excellent skin conditioner after being exposed to the sun, for acne prone, eczema, and psoriasis as well. It offers just the right amount of lubrication without leaving a greasy feeling. For soap making, use 2 tablespoons added to 5 lbs. of soap at trace just before incorporating the essential oils to add richness to the soap. A higher percentage, 10-20% of the total fats also makes an outstanding soap.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	Moderate

Lard

Lard is made from pig fat much like bacon fat. Its advantages are that it is cheap, easily obtainable, and makes a nice lathery, white bar of soap. This fat should be combined with vegetable oils such as coconut or palm to compensate for the lard's shortcomings. Without other oils it can tend to be soft and not work very well in cold water. Use it as a base oil. Recommended at 70% max of total oils.

❖ Hard Bar	Yes
❖ Lather	Stable
❖ Conditioning	Moderate

Macadamia Oil

Macadamia is a luxurious and slightly expensive oil. It has a long shelf life so it can be purchased in quantity for a good price. It is a wonderful addition to any soap. It is easily absorbed into the skin and acts as an emollient protecting skin cells from deterioration and thus leading to better condition for your skin. Use for super fatting your soap. Use 1 ounce per pound at trace.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	Moderate

Mango Butter

Mango butter is extracted from the mango fruit. It is a yellowish oil and has almost no scent. It is a great moisturizer and should be used to super fat batches. Can be used at up to 15% of base or as a super fatting agent at 5% at trace.

❖ Hard Bar	No
❖ Lather	None
❖ Conditioning	Moderate

Monoi Oil, also known as Monoi de Tahiti

Monoi oil is expensive but luxurious product made from coconut oil. It oil has wonderful moisturizing properties and is great for your skin. Use it as a base oil at 60% or higher.

❖ Hard Bar	No
❖ Lather	None
❖ Conditioning	High

Neem Oil

Extracted from the bark of the Neem Tree. This oil has the ability to treat a variety of skin disorders such as dandruff. Use as a base oil up to 40%.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	High

Olive Fruit Oil

Olive oil is excellent as a base oil in soaps, either in whole (Castile soap) or in part. The lower the grade the better for those whose into checking the final cost but, Extra Virgin Olive Oil can make a lot of difference in soap. Olive Oil prevents the loss of your skin's natural moisture, softens skin and attracts external moisture to your skin. It helps keeps your skin soft, supple and younger looking. If you're making a especially mild soap use Olive oil. Use as a base oil up to 100%.

❖ Hard Bar	Yes
❖ Lather	Stable
❖ Conditioning	High

Palm Oil, also known as Vegetable Tallow

Palm oil makes a hard bar that cleans well and is also mild. It is a good substitute for tallow in all-vegetable soaps. The quality of Palm oil is far superior to other vegetable oils that are filler oils. Palm oil is universal and used in many expensive luxury soaps. Palm oil is an edible plant oil that is made from the pulp of the fruit of the oil palm tree and is very rich in VIT E. The oil, which is similar to coconut oil, is one of the richest edible oils known to man. The oil is full of many healthy fatty acids, as well as an assortment of vitamins, antioxidants, and other phyto-nutrients. Additionally, the oil has incredibly high levels of vitamin A and vitamin E, making it a wonderful ingredient in skin care products and in natural soaps. Use as a base oil at 20 - 30%.

❖ Hard Bar	Yes
❖ Lather	No
❖ Conditioning	High

Palm Kernel Oil

Like Palm Oil, Palm Kernel oil makes a soap that is very hard and lathers well. It has most of the same qualities as palm oil. Use it as a base oil at 20-30%

❖ Hard Bar	Yes
❖ Lather	High
❖ Conditioning	High

Peanut Oil

Peanut oil contributes long-lasting lather to a soap. It is highly unsaturated though, so it is prone to spoilage. Avoid using more than 20%. Peanut oil is similar to olive and castor oils and has a good amount of vitamin E. Use it as a base oil up to a 20% maximum.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	Moderate

Safflower Oil

Safflower oil is an unsaturated oil and should be used in combination with palm, coconut, or a similar oil. It is valuable for its moisturizing properties. Use it as Base oil up to 60%, although 20% of total is more highly recommended.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	Moderate

Sesame Seed Oil

Sesame oil is said to be good for Psoriasis, Eczema, Rheumatism, and Arthritis. It makes a good super fatting oil due to its moisturizing ability. It has a strong nutty scent. It makes a softish bar unless used in conjunction with other, more saturated oils. Use it as a 10% addition to base oils.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	Moderate

Shea Butter

Shea butter is a wonderful super fattening agent and contains a large percentage of ingredients that do not react with the lye thus remaining in the soap to nourish your skin. Use it with your base at up to 20% of your total oils or as a super fattening agent at 1 2/3 tablespoons per 5 pounds of oils added at trace.

❖ Hard Bar	Yes
❖ Lather	Light
❖ Conditioning	High

(Vegetable) Shortening or Soybean Oil

Vegetable shortening is normally made out of soybean oil. It is cheap and readily available and produces a mild, stable lather. Use it in combination with other exotic or moisturizing oils. Use this as half of your fats to keep costs down. It is a good filler and makes a very hard white bar when used alone and when mixed with other oils it makes a wonderful hard bar of soap. Use vegetable shortening as base oil or combine it with other, harder oils for better results. Recommend use as base up to 50% of total oils.

❖ Hard Bar	Yes
❖ Lather	Stable
❖ Conditioning	Moderate

Sunflower Oil

Sunflower oil is a less expensive alternative to olive oil. It contains vitamin E, so it naturally resists going rancid. Despite this, don't store longer than six months. It is a less saturated oil so you want to combine it with other, more saturated, oils -- try to avoid using more than about 15-20% sunflower oil. It can make your soaps take longer to trace and to harden. Use as a Base oil up to 20%.

❖ Hard Bar	No
❖ Lather	Light
❖ Conditioning	High

Wheat Germ Oil

This oil is thick, sticky and antioxidant. It's also very rich in vitamin E. Can be used to nourish dry or cracked skin and soothes skin problems such as eczema and psoriasis. Helps to prevent and reduce scarring and may prevent stretch marks. Mature skin, in particular, will benefit from wheat germ oil. Some people use it as a preservative in vegetable oils, soaps and toiletries, and others totally disagree as to its preservative powers. On its own, wheat germ oil oxidizes rapidly. It should be kept refrigerated.

Use at 1 ounce per pound added at trace.

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| ❖ Hard Bar | No |
| ❖ Lather | Light |
| ❖ Conditioning | High |
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