

What Are Soap Nuts?

Soap nuts aren't technically nuts. They're fruit, taken from the soapberry tree (*Sapindus mukorossi*). In appearance, they're similar to the lychee nut, yet they're not grown for consumption. Thanks to their high concentration of foaming "saponin," soap nuts are used throughout the world as cleaning agents.

Harvested in India and Nepal, soap nuts have been used for centuries in Southeast Asia and for decades in Europe. In the past decade, it has made its way to North America, where it has been recognized as a natural, potent cleaning alternative to the harsh chemicals common to detergents and household cleaners.

What Is Saponin? Saponin is the chemical compound that makes soap nuts "sud." When met with an aqueous solution, the naturally-occurring saponin produces a foam-like substance -- the same kind of reaction detergents aim to create with their lab-created surfactants. This solution can be applied to most any purpose, but most commonly, it is used for laundry. Indeed, soap nuts and their dose of saponin have emerged a legitimate green alternative to commercial detergents.

Why Use Soap Nuts?

1. **Environmentally Friendly** - No chemical agents that will pollute our waters. Used soap nuts can be put into the compost, which means no harmful waste on the environment. 1 kg bag would replace 9-32 load plastic bottles of detergent. The ink on the exterior bag is sun dried and not machine dried.
2. **Economical** – 1kg bag of soap nuts will do 250-350 loads of laundry at the regular retail price of \$32.00, that is .09-.13 per load.
3. **No Fabric Softener**— Saponin naturally softens fabrics, therefore the added benefit to using Earth's Berries soap nuts is that you no longer need to use fabric softener.
4. **Colour Protection** Soap nuts have no residue, therefore they don't clog natural fabric pores like other detergents. There is no soap residue meaning the fabrics are protected from colour loss and fibre breakdown due to harsh chemicals.
5. **Clothing Protection** - Naturally occurring saponin in the Soap nuts lifts and removes dirt from fabrics cleaning as well as many name brand detergents without all of the harsh chemicals. Some companies actually use saponin extracted from natural sources as their main cleaning ingredient.
6. **Fine Fabrics & Cloth Diapers**— Great for fine fabrics such as silk with its soft and gentle cleaning effect. Cleans, deodorizes and softens cloth diapers while being gentle on babies bottoms.
7. **Odour Neutralizer**— Working very similar to vinegar, Soap nuts neutralize the the odour of clothes especially on organic odours such as sweat and urine. Remarkable at removing the odour of musty towels. Leaves clothes smelling fresh and clean.
8. **Septic Systems**—Soap nuts are anti-microbial therefore they help to break down the grey water in septic systems. There is no need to use the rinse cycle so half the water goes into the system.
9. **Ease of Use** - Just make up one small cotton sac of 4-5 soap nuts and that will clean 4-5 loads of laundry. They also stay in through the rinse cycle so no need for a second product. Because there is no residue the rinse cycle isn't necessary, except to rinse off the dirty wash water.

Environmental Benefits

The most exciting aspect of soap nuts is the fact that they actually work. When tested, the nuts have held up to the scrutiny. And, in a time when many of us are looking for ways to minimize our negative impact on the environment, soap nuts have arrived just in time.

Being 100% natural, soap nuts are gentle to clothes and the skin. They're also hypoallergenic and safe for

the environment. Runoff to streams remains a major environmental problem, and the chemicals used in commercial detergents have impacted plants, animals, and entire ecosystems. Soap nuts act as a low sudsing detergent to help eliminate this soapy runoff.

Alternatively, soap nuts are natural and biodegradable. The water runoff from their wash cycles is safe and afterwards, the used nuts can be returned to the Earth as compost.

Commercial Detergents: Harming the Environment

Though they clean our clothes, what is the hidden cost of using commercial detergents? As we grow more eco-conscious as a society, such questions need to be asked and answered. In the case of laundry detergent and its impact on the environment, the answer is an alarming one.

Clean Our Clothes, Pollute the Environment

When a wash cycle ends, where does the "dirty" water go? Seemingly, it disappears. But more accurately, it gets transported -- to a septic tank or a drain field. During this process, water-runoff reaches freshwater streams, polluting them. Most of the chemicals used in detergents do not degrade quickly, lasting for years after use.

Detergent Ingredients. When reading the ingredients of laundry detergent, be aware that "buffering agent," "stabilizer" and "fragrance" are all generic terms. They may sound vague and innocuous, but they hide the real chemicals behind them like alkyl benzene sulfonates and alkyl phenoxy polyethoxy ethanols.

Among the more common chemicals used in commercial detergents, consider:

- Linear alkyl sodium sulfonates (LAS): The most common surfactants used in detergents, these agents release carcinogenic toxins into the environment during production.
- Optical brighteners: We want our clothes to be white, but not at the expense of marine life. The synthetic chemicals that produce the visual enhancement are toxic to fish.
- Phosphate additives: When released into the environment, these chemicals promote the growth of algal blooms, choking off the air supply for fish and plants.
- Artificial fragrances: Ironically, fresh-smelling fragrances are made from petroleum, which does not degrade. Once in the environment, it's there to stay, polluting ecosystems for fish and mammals.

It's indeed alarming to think of the impact one load of laundry can have. Imagine then a week's worth of laundry? ...A month. ...A year.

A bulk bottle of laundry detergent can promise 200 loads of washes. It sounds like a bargain, but imagine the pollution resulting from just one bottle -- 200 wash cycles of "dirty" water, flushed out into the environment.

Ever-Present: Surfactants

Most all laundry detergents list anionic and nonionic surfactants as primary ingredients. What are they?

Detergent surfactants are wetting agents that help clean clothes by repelling against one another, creating a kind of tug or war that ultimately loosens dirt and suspends it in water. During the rinse cycle, this loosened dirt and residue surfactants are washed out -- into the environment.

Unfortunately, some surfactants are known to be toxic to animals and marine life. Yet they continue to be deposited into ecosystems, with only Time being offered as a resolution. In time, most commercial wetting agents will degrade. However, how long of time? And what of the life that comes in contact with the pollutants before then?

What's more, laundry is never-ending. Once the wetting agents from one load degrade, another load arrives. There truly is no end and thus, no respite for the environment and its inhabitants.

More Like Green washing

In an attempt to "go green," manufacturers have offered some solutions to reducing waste. Concentrated detergents for example are intended to cut down on the use of plastic. Yet, the composition of detergents remains the main concern and solutions, such as concentrated liquid, seem more of a greenwash than an actual solution.

Harsh chemicals released into the environment during production and after every wash cycle, are still the major problem. What are manufacturers doing about this? In an ever-growing green-conscious world, minimizing the amount of plastic used is not enough.

Biological detergents. These detergents, more common in the United Kingdom, use enzymes to break down dirt, literally "eating it away." Enzymes work best at lukewarm temperatures, thus making it less of a burden on energy (heating). Yet, enzymes are similar to phosphates, in that once released into the environment, they continue their growth... and destruction.

Is there any alternative to such harmful commercial products?

There is: Soap nuts.

A Natural Solution: Soap Nuts from the Ritha Tree

Grown in India and Nepal, soap nuts are natural cleaning agents that have been used for centuries to clean clothes. In the past decade, it's made its way to North America and green-conscious folks are discovering it every day.

The shells of the soap nut contain a naturally-occurring surfactant called saponin, which works in a similar way to the industrial versions. The main difference however, is that saponin is biodegradable, 100% natural, and safe for the environment.

Soap nuts, from the Soapberry tree (*Sapindus mukorrosi*), provide a legitimate, green alternative to the harmful commercial detergents found in stores. For anyone wanting to make an environmental difference, a switch to natural soap nuts is a positive, powerful first step.

TO MAKE SOAP NUT LIQUID

Boil 12 – 15 Soap Nut Shells or 24 – 30 half shells in 6 cups (1.5 quart) of water for 30 minutes, it should now be reduced to 4 cups, pass it through a cheese cloth to take out any debris. The liquid you have is now a concentrated, chemical free detergent. The leftover shells can be placed in your compost.

Make soap nuts liquid in small batches as the lack of preservatives will cause the liquid to spoil within 1 – 2 weeks.

HOW ARE THEY USED?

For Natural Laundry Detergent, you can use them in one of two ways.

1. Place 3 – 5 Soap Nut Shells or 6 – 10 half shells in a small muslin bag, tie it closed and throw it into the drum of your washing machine along with the articles of clothing that need washing. These nuts can be used for 4 -5 loads, they will become thin and small when they need to be composted. Soap nuts are "H.E ." compatible, as they do not create many suds. Just remember to put them into the drum of the machine. Soap nuts liquid can go into the laundry drawer.

NOTE: If you always use cold water to wash, soak the soap nuts in warm water for 3 – 4 minutes and then follow the above directions or use soap nut liquid.

NOTE: In hard water areas you may need a few more berries in the muslin bag to get great results.

2. Use 3 TBSP or 45 ml of soap nut liquid with each load of laundry. This allows you to do approximately 30 loads of laundry.

****NOTE: Are they de-seeded?***

Yes Soap nuts are de-seeded, however it is all done by hand and due to human error you may find that the odd seed gets into your bag. Do not use it in your laundry.

All-Purpose Cleaner: Fill a small spray bottle with full strength soap nut liquid (you can dilute it if desired, but I found it to be more effective in full strength). Add a few drops of tea tree oil or lemon essential oil. Use for spraying down countertops and floors and other general cleaning. You can also keep this cleaner by the kitchen sink for dish washing. I like to add 1 Tablespoon of lemon juice for more grease cutting effectiveness. Add white distilled vinegar for more disinfectant jobs.

Windows & Glass: Combine 1 cup of water with 1 Tablespoon soap nut liquid and 1 Tablespoon white vinegar. Place in a spray bottle and spray your surfaces and wipe clean.

For Dishwashers: Fill the dishwasher soap dispenser with soap nut liquid, about 1/8 cup. Wash as usual. Tip: For extra sparkle, add a half-ounce of vinegar to the rinse dispenser or during the rinse cycle. This works amazingly well! It is in a tight race with my homemade dishwasher detergent/dishwashing soap.

For Steam Cleaning Carpets: According to NaturOli, Soap nuts work exceptionally well in carpet cleaners because they are so low sudsing and odour reducing. Add about a quarter cup of soap nut liquid to hot water in the portable cleaner. Great for urine stains!