Thank you for purchasing DrTim’s Aquatics® NP-Active Pearls™. We believe these are the finest biopolymers for removing nutrients on the market. The purpose of this guide is to answer the most common questions about the Pearls, include some guidance on how to use them and provide a troubleshooting section. We suggest keeping a copy of this guide handy so you can refer to it as you use the Pearls. Also please visit our website for additional up-to-date information.

Quick note: this pdf file is ‘interactive’ which means where ever you see a square around words or a picture or a reference to a website clicking on these will take you to additional information via the internet.

Let’s get started:

**What do NP-Active Pearls do?**

In short, NP-Active Pearls compete against algae and other undesirable nuisances for nutrients, like phosphate and nitrate, in your aquarium water. By capturing the nutrients first they help keep the tank clean and looking good.

**Why are NP-Active Pearls better?**

NP-Active Pearls are 100% Pure with no fillers or plasticizers or other chemicals. They are Made in the USA specifically for aquarium use. Technically speaking that are a PHA based biopolymer that is ASTM D7081 certified biodegradable.
How do NP-Active Pearls work?

NP-Active Pearls provide a carbon source to beneficial bacteria that grow and at the same time remove phosphate and nitrate from the water. For a more detailed explanation of about bio-polymers in general please watch our [YouTube video](#).

How do I Use NP-Active Pearls

NP-Active Pearls need to be placed in a reactor or similar device that provides the Pearls with a constant, gentle flow of water that is high in oxygen and keeps the Pearls constantly, slowly moving. They should not be placed in a sealed canister filter or mixed with other media such as activated carbon or GFO (a phosphate removing medium) nor put in a bag and placed in a sump. Do not let the Pearls go stagnant, stop moving or turn black (if this happens see the troubleshooting section). For best results, your aquarium should be equipped with a protein skimmer or fine mechanical filtration that is cleaned often.

It is also highly recommended that the aquarium water be well mixed via strong water currents and be close to or at 100% oxygen saturation because as the beneficial bacteria develop on the Pearls they will consume oxygen as they remove nitrate and phosphate from the aquarium water.

What Reactor & Pump Should I Use

There are numerous reactor and pump combinations and most all will work as long as they keep the Pearls moving. When adapting a reactor to use with the Pearls be aware that sponges and foam filters will clog with bacterial biomass and may need to be removed from the reactor. It is best to consult the reactor manufacturer and see if they recommend their reactors be used with biopolymer media such as NP-Active Pearls. Visit our website (www.drtimsaquatics.com) for specific brands of reactors that we have tested and that work well with our NP-Active Pearls.

How Many NP-Active Pearls do I Use

We recommend using 3 ml of NP-Active Pearls per gallon of aquarium water (1/4 cup Pearls per 20 gal water). However, start with 1 ml of Pearls per gallon of water (1/4 cup of Pearls per 60 gal of water). Every 2 weeks add another 1 ml of Pearls per gallon until you reach the recommended dosing amount. Do not start with a full load of Pearls. It can take 2 to 3 weeks for the beneficial bacteria to colonize the Pearls and for you to start to see a reduction in nitrate and phosphate. However, this process can be sped-up by adding DrTim’s Aquatics Waste-Away beneficial bacteria at a dosage of 1 ml per 10 gal adding every day directly to the reac-
tor pump intake for 3 to 4 days.

**How Fast Should the Pearls Tumble**

The Pearls should move gently in the reactor. Faster, quicker is not better. But over time it is normal to have to increase the water flow to keep the Pearls moving because as they become coated with bacteria they will tend to stick together.

**Do I need a protein skimmer?**

Yes, for best results in saltwater systems a protein skimmer is needed. In freshwater systems use a fine mechanical filtration that you clean often.

**Do NP-Active Pearls Replace Activated Carbon?**

No, NP-Active Pearls do not replace activated carbon (GAC). They perform different functions in the aquarium.

**Can I mix other media with the Pearls?**

No, NP-Active Pearls should not be mixed in the same reactor with other media such as GAC and GFO.

**Should I continue to dose vodka when using Pearls?**

While there is debate about whether one should continue vodka dosing when using NP-Active Pearls we recommend you discontinue vodka dosing. Both methods are adding carbon to your aquarium which is good but too much of good thing can be bad so it is best to choose one method and stick with that. Given that using NP-Active Pearls is easier than vodka dosing we, of course, recommend this method.

**Regular Maintenance**

Important - over time the good bacteria will slowly consume the Pearls so the Pearls will disappear and need to be replenished periodically. A normal, full dose of Pearls should last 6 to 9 months but the rate they are consumed depends upon individual tank parameters such as the nitrate and phosphate levels. As you notice the amount of Pearls in your reactor decrease starting adding more Pearls. **Do not wait until all the Pearls are gone before adding more.**

**Troubleshooting**

**My water turned cloudy after adding the Pearl.**

Sometimes when first starting with NP-Active Pearls the aquarium water will turn cloudy. The cloudiness will clear up in a few days and is due to the fact that there are large amounts of organics in the system which are now being degraded by bacteria. Do not add more Pearls until the water clears. Also consider treating your tank with DrTim’s Aquatics Waste-Away to remove the dissolved and particulate organics that can cause cloudiness.

**My Pearls turned brown and are sticking together.**

This is normal and a sign things are working as bacteria are growing on the Pearls. If too many Pearls stick together increase the water flow or manually stir the Pearls to break them up.
My Pearls clogged, stopped moving or turned black. Immediately shut off the water flow to the reactor and remove the reactor from your system. Do not under any circumstances let static, discolored water, that may have a hydrogen sulfide (rotten egg) smell, flow back into your aquarium. You can capture the pearls in a strainer and re-use them after rinsing them well with clean freshwater. Clean the reactor well and make sure the ports are not clogged. Then re-fill with cleaned or new NP-Active Pearls and restart.

My skimmer is not near my Pearls. The output of the Pearl reactor does not need to be directed at the or next to the skimmer intake.

My Phosphate/Nitrate levels won’t get to zero. Bacteria need three main things to grow: carbon, nitrogen and phosphate in different amounts. When one of these runs out the growth of the bacteria will slow. In most aquarium systems the phosphate value will get near to or at 0 first and nitrate will drop to a low level but not to zero. But in some cases, nitrate will drop to zero and there will be a little phosphate in the water. Either case is fine, rarely do both nitrate and phosphate reach zero. Don’t worry so much about numbers, look at your tank - are the corals looking better, is there less algae, does the water look better? These are all signs that the Pearls are working.

General Advice. All good things take time in an aquarium system (rushing never works). Do not expect miracles in a week. Using NP-Active Pearls is not an excuse for poor husbandry practices or over-feeding but is a part of a complete filtration system.

For more information, FAQs, tips, and videos on how to use NP-Active Pearls and other DrTim’s Aquatics products for setting-up and maintaining your aquarium please visit our websites at www.drtimsaquatics.com and www.npactivepearls.com.