pH in Freshwater Aquariums

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principles of proper pH

Many freshwater community fish thrive in a broad pH range between slightly acidic (6.5) to slightly alkalic (7.5). However, some fish, like sensitive discus or cichlids, require special water conditions. To provide their ideal water conditions, you must learn how to make adjustments to your aquarium water using pH conditioners.

Before using city or well water in your aquarium, test it to determine its pH and alkalinity (kH). In most areas, tap water falls within the 6.5-7.5 range. Tap water that tests high in pH is usually hard, or high in mineral content. To lower the pH, you cannot simply add acids using a commercial pH decreaser. The abundance of minerals in the tap water would buffer the acids. No effective pH change would be made.

You first need to remove some of the minerals (or hardness) from your water. The best way to do this is with the use of a Reverse Osmosis unit. After you remove minerals, the use of peat or a commercial pH decreaser will be more effective at lowering pH to the desired level.

The opposite is true if your tap water is acidic

Q Why is pH balance important?

A Water that's either too alkalic or too acidic can wreak havoc on fish by interfering with their basic body functions, leaving them vulnerable to disease and stress.

WE RECOMMEND

Alkaline Buffer raises water pH to make it suitable for cichlids and other freshwater species that require higher pH.

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The opposite is true if your tap water is acidic, or soft. You will first need to add minerals to buffer and raise the pH. Commercial alkaline buffers should do the trick to effectively raise and control pH at the desired level.

Monitor pH frequently. Factors that effect pH can change - even in established aquariums or without the use of commercial water conditioners. The addition of acids can lower your aquarium pH, and these drops are very harmful to your fish. Acids come from several sources: from excess carbon dioxide via respiration, from the nitrification stage of biological filtration, and from leaching tannins in driftwood, to name a few. On the other hand, substrates or gravel containing coral, limestone, or sea shells will leach carbonates into the water, which will raise the pH buffering capacity. In saltwater aquariums, this may be desirable, but in most freshwater aquariums, you generally don't want your substrate to drastically alter water chemistry.

Unfortunately, when your aquarium is experiencing pH imbalance, there are no visible signs. Since a small change in pH means a drastic change in alkalinity or acidity, it is important to monitor aquarium pH frequently. Keep a notepad to record your pH readings whenever you test. It will help you recognize patterns and find solutions when something is altering your pH. Before long, you'll be a pro at using pH conditioners to stabilize aquarium pH.

- Acid Buffer lowers water pH to make it suitable for tetras and other freshwater species that require lower pH.
- Water Softener Pillow stabilizes pH, protects tropical fish from hard water, and eliminates white, crusty deposits. Safe for delicate tropical fish.
- Neutral Regulator adjusts pH to neutral and maintains it. Softens and conditions, removes both chlorine and chloramine, precipitates toxic metals and promotes clarity.

RELATED ARTICLES

- The Importance of Regular Testing
- Ideal Water Parameters
- Conditioners for Proper Water Quality
- Test and Treat Tap Water to Prevent Problems

RELATED PRODUCTS

Pinpoint pH Monitor

Pinpoint Water Hardness Monitor

Vital Sine pH & Temp Gauge

RO Units

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Hardness Monitor & Temp Gauge

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