FAQs: Biological Media

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What is Biological filtration?

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What kind of maintenance does biological filter media need?

Does biological filter media need replacement?

What is Biological filtration?

Biological filtration is the natural action of bacteria breaking down dangerous compounds into a less toxic form. This process, also called the Nitrogen Cycle, involves converting the toxic chemical compound ammonia into nitrite and then to nitrate.

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What is Biological media?

Biological media, or bio media, is any inert material that houses beneficial bacteria colonies that break down ammonia. Commercial biological media is available in porous rock or pebble-like material, ceramic cylinders, plastic balls, coarse mesh-like material, or even in slab form. Biological media is usually placed in your filtration system where moving water brings nutrients and oxygen to the bacteria so they can complete the nitrogen cycle.

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What conditions do beneficial bacteria need for proper growth?

Beneficial bacteria that break down ammonia thrive in conditions where they receive a steady food source (ammonia or nitrite) and plenty of oxygen. Fish waste and decaying food and plants supply the ammonia and good water movement supplies oxygen. These beneficial bacteria also require water temperatures above 55°F.

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What kind of maintenance does biological filter media need?

Biological filter media is essentially maintenance free. But be sure to check your filtration system regularly to make sure particles are not clogging the biological filter media. To reduce buildup and clogging, the filtration system should include mechanical filter media to trap particulates before it reaches the bio media.

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Does biological filter media need replacement?

No. Removing or replacing the media can severely deplete the bacterial population. The discoloration or film found on the media indicates healthy growth of these bacteria. However, if the media becomes clogged, you can use aquarium water to gently dislodge some of the material to improve water flow. Once beneficial bacteria are established in your biological media, they are difficult to destroy. However, over-cleaning, chlorinated water, or certain medications, such as antibiotics, can deplete existing bacterial populations.

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