

Aquarium water

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Poisonous substances in Aquarium water: There are some nitrogen compounds which produce poisonous substances like Ammonia, Nitrite and Nitrate other than the Gas Bubble Disease caused by atmospheric nitrogen. All these are formed by the breakdown of proteins which are produced in the aquarium itself. In fact these small quantities are always present in the water under normal conditions.

During the digestion of protein by freshwater aquarium fishes, they release the most important end product ammonia (NH₃) in the form of ammonium (NH₄⁺). In fact a small quantity of ammonia is also produced at the end of proteins present in the urine. Due to the following chemical equation, both the ammonia and ammonium are present in the water in the state of equilibrium. (NH₃ + H₂O = NH₄⁺ + OH⁻ = NH₄⁺ + IS NOT HARMFUL TO FISH) In fact the acidity (pH) and temperature of the water are the most important factors of the balance temperament. The NH₃ levels are low and NH₄ get high, when both the pH and the temperature of the water get low together with in a general aquarium system with a split bright bulb lightening system. Even you will find same case in an artificial aquarium set using a white gravel base together with a fluorescent lightning system.

Due to the increase in calcium carbonate released by the gravel the water turns to alkaline and in result the high pH (hydrogen-ion concentration) together with low temperature and in a high NH₃ level, there is a chance of causing the popular Acute Ammonia Poisoning disease (AAPD). Only then this will be out of control to keep fishes safe in aquariums using a completely with a gravel bed system. {mosgoogle left}