

RO (reverse osmosis) provides the best way to produce ultra pure water (pure H₂O).

It has long been the choice for marine specialists but is now becoming more used in the fresh water hobby.

Most good local fish store provide pure RO water and RO water with salt in (sea water). They also provide products to remineralise the water after.

Pure R.O. is stripped of everything including [KH](#) to give pure H₂O (water) it should never be used untreated and on its own; the only exception is to replace evaporated water.

It is easy to overlook the need for electrolytes; mineral cations such as calcium & magnesium and the effect of KH (Carbonate hardness) in the aquatic environment.

Minerals such calcium are essential for osmotic function in fish and many aquarists make the mistake of believing that some fish such as Discus do not require Calcium or minerals when in reality (based on many studies in biochemistry) these mineral cations are essential.

Due to lack of ions present and no buffering capacity many devices and test methods will not measure the [PH](#) of RO water accurately. They will normally return either the PH of the reagent being used to test them of the neutral point on an electronic device.

TIP: RO should not be used to lower PH. To better understand why diluting with RO not have much effect [click here](#). RO will mainly lower KH. To lower PH use buffers.