

# 8 WAYS TO A BETTER MARINE FISH AND REEF AQUARIUM

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by Michael Del Prete Master Marine Aquarist™

**1** Always use the best quality fresh water possible to mix your marine salts. If you suspect your water supply contains: contaminants, pesticides, detergents, nitrates, phosphates, etc., it is best to use makeup water that is purified. Remember, your saltwater solution is only as good as the water with which you mix it.

**2** Use a marine salt that is made of uniform particle size salts, that does not contain phosphate or nitrate and is low in silicon. Ideally it will mix to the proper pH and include a dechlorinator. A **good** marine salt is **CORAL MARINE™**, it contains all elements found in NSW. A **better** marine salt, **BIO-SEA®** is similar to the composition of NSW. The **best** marine salt, **MARINE ENVIRONMENT® dual phase formula™** contains higher amounts of calcium, strontium and includes organically bound iron, iodide, with supplemental trace elements, water conditioners and a built-in dKH generator with calcium hardness regulator.

Avoid salt mixes that demonstrate variations between packages, exhibit deficiencies, excesses or are otherwise out of balance. Refer to the **S-15 Report™**.

**3** Mix salts with clean water at 73°F-77°F (23°C-25°C) to a specific gravity (S.G.) of **1.020-1.023** for keeping most tropical marine fish. Mix salts to **S.G.** of **1.022-1.025** for keeping most tropical reef invertebrates. Use the accurate, color coded **MARINE ENVIRONMENT® SPECIFIC GRAVITY TESTER™**. It is durable, will not come apart, resists air bubbles, is easy to use, has English or international instructions, and is low in cost.

Specific gravity is the first, most frequent and easily performed test for all saltwater aquariums. Maintaining proper specific gravity is essential for keeping a healthy marine fish or reef aquarium. Avoid low cost glass hydrometers. They are usually inaccurate and vary individually. Glass hydrometers can break easily, many are difficult to read. Remember, water evaporates, not the salt. Use the same high quality fresh water to replace water lost through natural evaporation.

**4** Buy only healthy, disease free fish and invertebrates that are accepting a variety of foods. It is best to quarantine all incoming animals for 30 days prior to introducing them into your display aquarium. A quarantine tank can be outfitted with a low cost over the tank trickle filter. This will allow you to observe new arrivals and diagnose and treat illness that may develop. Use only **BI OX®** in this drip or trickle filter. **BI OX®** is a superior liquid-gas-contact bio-reactor. **BI OX®** is the best trickle filter medium for use in all marine fish and reef aquariums. **BI OX®** is also ideal for freshwater aquariums and ponds.

**5** If fish in quarantine develop Cryptocaryon irritants, Oodinium (white spot or velvet) and, or scratch due to other parasites, treat with **1 DROP™ Cu SO<sub>4</sub>** (copper sulfate). Copper sulfate is an excellent medication to control and eradicate deadly ecto parasites.

Each drop of **1 DROP™ Cu SO<sub>4</sub>** will add 0.15ppm of copper to each gallon of water in your quarantine, hospital or sick tank. Remove any carbon before adding copper. Keep pH at 8.2 - 8.4. Maintain 0.15-0.18 ppm therapeutic treatment level for 30 days. Use a high quality copper test kit to monitor copper levels. **1 DROP™ Cu SO<sub>4</sub>** can be easily removed from all tanks. Remember, copper cannot be added to any invertebrate (reef) aquarium.

**6** Certain corals, sponges, algae and other invertebrates may require slightly higher levels of: calcium, strontium, iodide, and select trace elements. Use only **REEF SYSTEM™** brand additives.

The **REEF SYSTEM™** offers **11 additives** that replace elements used by marine fish and inverts. and, or removed by various forms of bio and chemical filtration. **AQUA CAL™** is an easy to use calcium additive that will not lower pH. **REEF IODIDE™** (not iodine) is proven essential for the growth of soft corals. **MACROALGAE IRON ADDITIVE™** is formulated for corals, algae and numerous invertebrates. **TRACE ELEMENTS w/gel™** replaces essential trace elements used by captive marine pets and dramatically improves the working ability of protein skimmers. **HYDRO-SAFE™** maintains the natural protective slime coat on marine animals, is a very efficient stress reducer and shock preventative. **HYDRO-SAFE™** is ideal for shipping, acclimation and treating all marine fish. **STRONTIUM +MOLYBDENUM™** is for interaction with calcium, corals and system stability. Only **REEF SYSTEM™** additives are biologically tested and professionally produced by one of the world's largest marine salt manufacturers. Avoid products that do not provide accurate content information or are sold with paper labels that can rub off when wet.

**7** Aquariums with drip or trickle filters should prefilter system water before it passes over the bio-filter medium (**BI OX®**). This will prevent an organic waste buildup on the surface of the trickle filter medium. Submersible pumps used to circulate or return system water should also be fitted with a prefilter. Prefilters should be cleaned or replaced on a regular basis.

**8** Make regular water changes in all saltwater aquariums. Water changes replenish elements used by captive marine animals and reduce the natural accumulation of waste ions.

Use a **good** marine salt that contains all the elements found in NSW, like **CORAL MARINE™**. A **better** marine salt that is similar to NSW is **BIO-SEA®**. The **best** marine salt, **MARINE ENVIRONMENT® dual phase formula™**, includes many extras that must otherwise be purchased separately.

Remember, water quality starts with your water. You cannot make a poor marine salt into an acceptable formula even with the use of additives, supplements or continual water changes. Don't get sold short. Use the information and products described here. ♦

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