

Saltwater Mixing Containers, How to Create

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For about \$100, you can create the perfect saltwater mixing container to have available for emergency water replacements, as well as your regular water changes. Always use purified water when mixing saltwater, either by purchasing distilled water or by producing it with an [RO/DI filter](#).

What you need:

- New 30-55 gallon NSF Food Safe Certified Container, such as Rubbermaid BRUTE® Containers (Also consider a dolly for easy transport), available locally
- [Floating Thermometer](#)
- [Powerhead](#)
- [250W Heater](#)
- [Hydrometer or Refractometer](#)
- 10 ft of [1/2" tubing](#)
- Dry [Synthetic Sea Salt](#)

What you do:

- Rinse the plastic trash container with tap water, no detergents, and place it next to your aquarium. Fill the container with the amount of water you will need (ideally purified RO/DI water).
- Measure and record water temperature and specific gravity of your aquarium.
- Place the thermometer in the mixing container. Position the powerhead and heater near the bottom of the mixing container to allow the salt to dissolve quicker. Be sure to set the heater to match the water temperature of your aquarium.
- Divide the total amount of required salt into three equal parts. Slowly add the salt, a third at a time, making sure it dissolves completely before adding more. When all the salt is completely dissolved, measure the specific gravity with a hydrometer or refractometer.

- Adjust to achieve desired specific gravity; add more salt if too low and more water if too high.
- Run the powerhead for several hours to thoroughly aerate the newly prepared saltwater. Ideally, the salt mix should be prepared at least 24-hours in advance to achieve proper oxygen/carbon dioxide equilibrium.

Once properly mixed, tested and oxygenated, the saltwater is ready to use. Be sure to use a lid when storing surplus saltwater to prevent contamination or evaporation.

Crucial Testing

Refractometers measure salt levels in water very accurately even in low salt situations and compensate for temperature. Simply lift the plastic lid from the angular end, place a drop of water on the surface, and close the lid. Look through the viewing lens (round end) as if you're looking through a telescope. The line where the blue and white areas meet is your salinity or specific gravity, depending on which scale you use. Add salt if too low, water if too high.

Target Specific Gravity

Ranges:

1.020 to 1.024 for fish only systems;

1.023 to 1.025 for reef systems.

Target Temperature

Ranges:

72-80°F for fish only;

75-78°F for reefs.

We Recommend

Instant Ocean
Hydrometer

Marineland Maxi-Jet PRO
Water Pumps

Marineland Precision
Submersible Heater