HyperReef Supplements

Preserving the correct balance of important chemical components of seawater is crucial to the long term success of every marine reef aquarium. Of primary importance to the survival of corals, mollusks and many other reef invertebrates is the supply of calcium and carbonate ions. Without these components in the correct ionic ratio, invertebrates cannot deposit calcium carbonate in their skeletons or shells. Because organisms extract calcium and carbonate ions from the surrounding water, regular supplementation is necessary to replenish these ions.

SICCE®
www.sicceus.com

3-Part Reef Maintenance System
Ionically balanced formulations

- Makes crucial reef tank maintenance simple and foolproof
- Magnesium, calcium and alkalinity supplement system
- Ionically balanced formulations
- High purity ingredients
- Developed by a professional biologist
- Ideal for all corals, clams and other reef invertebrates

HyperReef Magnesium Part 1	16oz and 32oz
HyperReef Calcium Part 2	16oz and 32oz
HyperReef Alkalinity Part 3	16oz and 32oz

(Sold separately)

Corals and many other reef invertebrates require a constant supply of both calcium and carbonate in order to construct their skeletons. HyperReef Part 2 is the calcium component of our simple, two part system for reef tank maintenance. HyperReef Part 3 is the carbonate component of our system. These two components are formulated to provide calcium and carbonate in ionically-balanced solutions made from high-purity ingredients.

Seawater is a complex mixture of many ions. One of these, magnesium, must be maintained at a concentration of 1290 to 1320 ppm (NSW = 1292 ppm at salinity of 35 ppt) when using any form of calcium and alkalinity supplementation. Otherwise, unwanted precipitation of calcium carbonate will make these ions unavailable to the invertebrates. Therefore, HyperReef Part 1 - Magnesium should first be used to adjust the magnesium concentration, with the help of a test kit.

HyperReef Part 1 provides 55000 ppm of magnesium. To avoid undesirable ionic imbalances, the product is formulated using magnesium chloride and magnesium sulfate, while maintaining the ratio of chloride and sulfate found in natural seawater. (NSW = 7.1:1). Like the other components of the HyperReef Part 1 is produced using high-purity ingredients.

All components of the HyperReef Maintenance System are free from contaminants such as ammonia, silicate, phosphate and organic matter.

By following our simplified instructions for use, the various components of the HyperReef Maintenance System will meet the needs of reef tank hobbyists at all levels of experience, from novice to master.

Typical ocean surface values for these parameters are:

Magnesium	1280 ppm
Calcium	420 ppm
Alkalinity	2.5 meq/L (7 dKH)

HyperReef Magnesium Part 1 16oz and 32oz

SICCE HyperReef Magnesium Supplement contains 55000 ppm of magnesium. Each ml added per gallon will increase the magnesium concentration by 14.47 ppm. To avoid undesirable ionic imbalances, the product is formulated using magnesium chloride and magnesium sulfate, while maintaining the ratio of chloride and sulfate found in natural seawater. (NSW = 7.1:1). Like the other components of the SICCE HyperReef product line, our Magnesium is produced using high-purity ingredients.

Directions: Calculate the correct dosage by following four simple steps.
1. Measure the magnesium concentration of the aquarium.
2. Decide how much you wish to change the magnesium concentration. For example, if the test result is 1200 ppm and you want to reach a target concentration of 1390 ppm, the amount of change is 190 ppm.
3. Multiply the amount of change by the number of net gallons in the aquarium system.
4. Multiply the result from step three by 0.07. The result is the number of milliliters of supplement required to reach the desired concentration.

HyperReef Calcium Part 2 16oz and 32oz

Formulated from high-purity ingredients, Sicce HyperReef Calcium Supplement contains no silicate, nitrate, phosphate or organic matter, and was designed by a professional biologist to be ionically balanced with Sicce HyperReef Alkalinity Supplement. Different brands of calcium and alkalinity supplements should not be combined, to avoid imbalances. Sicce HyperReef Calcium Supplement contains 74000 ppm of calcium.

Each ml of product added per gallon will increase the calcium concentration by 19.4 ppm when used as directed. Calculate the correct dosage by following four simple steps.

Do not exceed 1ml/10gal every other day without testing the water and following instructions below. Use with equal parts HyperReef Alkalinity Part 3. Do not mix products together. Add measured amount of product gradually, in an area of high water movement.

1. Measure the calcium concentration of the aquarium.
2. Decide how much you wish to increase the calcium concentration. For example, if the aquarium tests 380 ppm and you want to reach a target concentration of 420 ppm, the amount of the increase is 40 ppm.
3. Multiply the amount of increase by the number of net gallons in the system.
4. Multiply the result from step three by 0.0515. The result is the number of milliliters of supplement needed to reach the desired concentration.

HyperReef Alkalinity Part 3 16oz and 32oz

Formulated from high-purity ingredients, Sicce HyperReef Alkalinity Supplement contains no silicate, nitrate, phosphate or organic matter, and was designed by a professional biologist to be ionically balanced with Sicce HyperReef Calcium Supplement. Different brands of calcium and alkalinity supplements should not be combined, to avoid imbalances.

Adding one mL of this product per gallon will increase alkalinity by 0.526 meq/L, or 1.47 dKH or 26.3 ppm. Before beginning routine dosing, adjust the alkalinity to within the range of 7-11 dKH (2.5-3.9 meq/L).

Do not exceed 1ml/10gal every other day without testing the water and following instructions below. Use with equal parts HyperReef Calcium Part 2. Do not mix products together. Add measured amount of product gradually, in an area of high water movement. This product may increase pH, which should be monitored.

Alkalinity adjustment dosage:
1. Measure the alkalinity of the aquarium in meq/L. 1meq/L = 2.8 dKH = 50 ppm
2. Decide how much you wish to increase the alkalinity. For example, if the aquarium tests 6 dKH and your target is 7 dKH, the difference is 1 dKH or .36 meq/L.
3. Multiply the amount of increase in meq/L desired by the number of net gallons in the aquarium.
4. Multiply the result from step three by 1.9 to obtain the number of milliliters of supplement to be added.

For routine dosing once tank parameters are in the correct range, add alkalinity supplement in an amount equal to the amount of calcium supplement added.