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ANABOLICS™

REEFING MADE EASY

MIXING AND DOSING GUIDE

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CONTENTS

MIXING INSTRUCTIONS

REEF ANABOLICS MACRO ELEMENTS

CALCIUM Ca

REEF ANABOLICS CALCIUM CHLORIDE DIHYDRATE 37,000PPM (MG/L)

Dissolve 136 grams of Reef Anabolics Calcium Chloride Dihydrate per 1L Reverse Osmosis (RODI) water. To be dosed with Reef Anabolics Reef Growth and Reef Metals Pro (see page 2).

+

ALKALINITY Alk

REEF ANABOLICS SODIUM CARBONATE 95,000PPM (MG/L)

Dissolve 100 grams of Reef Anabolics Sodium Carbonate per 1L RODI water. If Reef Anabolics Sodium Bicarbonate is your preference, dissolve 80 grams of Reef Anabolics Sodium Bicarbonate per 1L RODI water solution.
To be dosed with Reef Anabolics Reef Halogen (see page 2).

+

MAGNESIUM Mg

REEF ANABOLICS MAGNESIUM CHLORIDE HEXAHYDRATE 47,000PPM (MG/L)

Dissolve 392 grams of Reef Anabolics Magnesium Chloride Hexahydrate per 1L RODI water.

Or for two-part mixing to establish an ionic balance of magnesium 47,000ppm (mg/L), sulfate 29,400ppm (mg/L) and chloride 69,750 (mg/L):

Dissolve 226 grams of Reef Anabolics Magnesium Chloride Hexahydrate with 200 grams of Reef Anabolics Magnesium Sulfate Heptahydrate per 1L RODI water solution.

POTASSIUM K

REEF ANABOLICS POTASSIUM CHLORIDE 100,000PPM (MG/L)

Dissolve 190 grams of Reef Anabolics Potassium Chloride per 1L RODI water.

MIXING INSTRUCTIONS

REEF ANABOLICS TRACE ELEMENTS SUPPORT SYSTEM

1L

13ml/1L

REEF ANABOLICS REEF HALOGEN

Fill the bottle with RODI water to the top of the bottle rim (this is the 1L mark). Close the lid and shake vigorously until the content is completely dissolved. Mix 13ml of this Reef Anabolics Reef Halogen solution per 1L of Reef Anabolics Sodium Carbonate (Soda Ash) solution (Alkalinity - see page 1).

If Reef Anabolics Sodium Bicarbonate is your preference, mix 6ml of Reef Halogen solution per 1L of Reef Anabolics Sodium Bicarbonate solution (Alkalinity - see page 1).

→ ALKALINITY 1L

1L

13ml/1L

REEF ANABOLICS REEF GROWTH

Fill the bottle with RODI water to the top of the bottle rim (this is the 1L mark). Close the lid and shake vigorously until the content is completely dissolved. Mix 13ml of this Reef Anabolics Reef Growth solution per 1L of Reef Anabolics Calcium Chloride Dihydrate solution (Calcium - see page 1).

→ CALCIUM 1L

1L

13ml/1L

REEF ANABOLICS REEF METALS PRO

Fill the bottle with RODI water to the top of bottle rim (this is the 1L mark). Close the lid and shake vigorously until the content is completely dissolved. Mix 13ml of this Reef Anabolics Reef Metals PRO solution to the 1L of Reef Anabolics Calcium Chloride Dihydrate solution (Calcium - see page 1) that was initially mixed with the Reef Anabolics Reef Growth solution (as per above instructions).

→ CALCIUM 1L

2L

1ml/100L

REEF ANABOLICS REEF BOOSTER

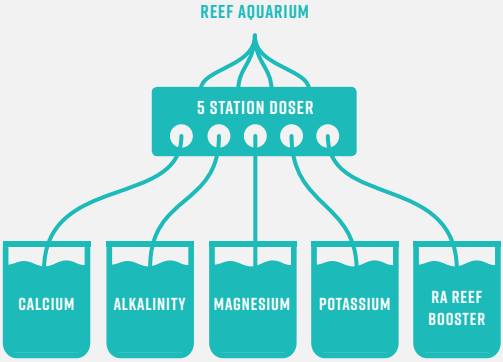
Mix the Reef Anabolics Reef Booster powder with 2L of RODI water. Stir until the content is completely dissolved. Empty the solution into a dosing container. Daily dosing of 1ml per 100L of the system's full volume (for a heavily stocked tank). For standard systems not heavily stocked, dose 50% of the recommended dose.

DOSING GUIDE

REEF ANABOLICS MACRO ELEMENTS: AUTO DOSING

Ensure your reef aquarium is operating at optimum levels by maintaining the recommended water parameters listed below.

RECOMMENDED WATER PARAMETERS	
Salinity	1.025 (35ppt)
Temperature	25 degrees
PH	8.0 – 8.5
Calcium	400- 440ppm
Magnesium	1280-1460ppm
Alkalinity	6.5 - 8dKH
Potassium	380 - 440ppm
Nitrate	1 - 2ppm
Phosphate (PO4)	0.01-0.08ppm
Iodine	0.06ppm
Strontium	8-10ppm



Five station dosing setup example.

REEF ANABOLICS MACRO ELEMENTS SOLUTION CONCENTRATIONS*				
SOLUTION	COMPONENTS	DOSAGE	WATER QTY.	CONCENTRATION ↑
Calcium Ca	Reef Anabolics Calcium Chloride Dihydrate	1ml	1L	37ppm (mg/L)
Alkalinity Alk	Reef Anabolics Sodium Carbonate	1ml	1L	95ppm (mg/L)
Alkalinity Alk	Reef Anabolics Sodium Bicarbonate	1ml	1L	47.5ppm (mg/L)
Magnesium Mg	Reef Anabolics Magnesium Chloride Hexahydrate	1ml	1L	47ppm (mg/L)
Magnesium Mg	Reef Anabolics Magnesium Chloride Hexahydrate Reef Anabolics Magnesium Sulfate Heptahydrate	1ml	1L	47ppm (mg/L)
Potassium K	Reef Anabolics Potassium Chloride	1ml	1L	100ppm (mg/L)

* Concentration increase for 1ml of Reef Anabolics Macro Element solution in 1L of water.

Once the recommended parameters have been achieved, conduct regular testing on all concentrations at the same time each day for one week. This will determine the daily uptake of each macro element. Over time as corals grow, the daily consumption of macro elements will increase.

DOSING GUIDE

REEF ANABOLICS CORAL & FISH NUTRITION SYSTEM: MANUAL & AUTO DOSING

1 DROP/ 100L

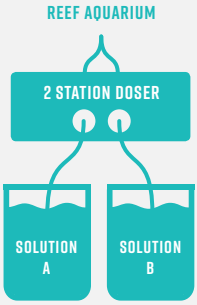
REEF ANABOLICS AMINO PRO, VITAGLOW PRO AND AMINO ALOE+

Maximum of 1 drop per 100L (27 US gal) of water. Please note each reef aquarium is different. Taking into consideration the livestock in your tank, it is recommended that you start with a lowered dose (for example, half of the recommended dosage) and observe how the corals respond. If the corals respond positively, steadily increase the dosing until you reach the maximum dosage of 1 drop per 100L (27 US gal).

1 DROP/ 100L

REEF ANABOLICS FISH NUTRITION

1 drop per 1 gram of frozen food at each feed. Alternatively, dose 1 drop per 100L to stimulate the fish into a feeding frenzy. Dispense in high flow area.



Two station dosing setup example.

REEF ANABOLICS CORAL NUTRITION SYSTEM AUTO DOSING (PER 500L)

SOLUTION	COMPONENTS	QUANTITY
Solution A	Reef Anabolics Amino PRO Reef Anabolics Amino Aloe+ RODI water	2ml (30 drops) 2ml (30 drops) 1L
Solution B	Reef Anabolics VitaGlow PRO RODI water	2ml (30 drops) 1L

* Reef Anabolics Coral Nutrition System can be automatically dosed alongside Reef Anabolics Macro Elements as part of a seven station doser.
* We do not recommend premixing Reef Anabolics Amino PRO and Reef Anabolics Amino Aloe+ with Reef Anabolics VitaGlow PRO. Reef Anabolics VitaGlow PRO must be dosed seperately.
* We recommend premixing no more than 1 week's worth of solution (143ml/day).

TEST YOUR WATER QUALITY USING TEST KITS

Testing your reef aquarium regularly will help achieve optimum results. It is recommended that you use calcium, alkalinity, magnesium, potassium, nitrate and phosphate test kits to obtain an understanding of your reef aquarium's water parameters. Having this will ensure you properly administer your Reef Anabolics products. Once you have determined your reef aquarium's current water parameters using your chosen test kits, refer to the dosing guide on page 3 to ascertain ideal water parameters and dose accordingly.

FREQUENTLY ASKED QUESTIONS

WHAT ARE MACRO ELEMENTS?

Macro elements, also known as “major elements”, are required in relatively large quantities within a reef aquarium. The three major elements are calcium, carbonate (alkalinity) and magnesium. All three macro elements are the building blocks of a reef aquarium. Calcium is crucial for stony corals, clams and calcareous algae. Carbonate not only acts as a carbon source for supporting coral development, it promotes pH stability by acting as a buffer. Magnesium is absorbed at a lesser rate in comparison to its counterparts; however, this macro element will need to be replenished over time. Magnesium supports calcification for both corals and invertebrates and is also responsible for the stability of calcium and carbonate concentrations. Potassium is also considered a macro element; although, its uptake within a reef aquarium is at a much slower rate compared to calcium, carbonate and magnesium. Potassium plays a key role in the transportation of nutrients and contributes to coral development.

HOW FAST CAN I RAISE MY MACRO ELEMENTS?

We recommend not to exceed the following within a 24hr period:

- Calcium 20ppm
- Alkalinity 0.5-1dKH
- Magnesium 100ppm
- Potassium 20ppm

When correcting parameters always adjust magnesium first as it plays a vital role in the stability of calcium and alkalinity. Always perform dosing across multiple sessions over a 24hr period.

SHOULD I BE SUPPLEMENTING MACRO AND TRACE ELEMENTS?

Macro and trace elements play an important role in the development of coral growth and colouration. As corals grow within a reef aquarium, the abundance of both macro and trace elements will deplete. Supplementing the three main macro elements in conjunction with trace elements will allow stable concentrations to promote healthy growth and vibrant colours.

WHAT ARE TRACE ELEMENTS?

Trace elements make up 0.03% of seawater. The most abundant trace elements are barium, boron, bromide, chromium, cobalt, copper, fluorine, iodine, iron, manganese, molybdenum, nickel, rubidium, selenium, strontium, vanadium and zinc. Trace elements play a vital role in the biological process within a reef aquarium. They will assist in coral growth, development and colouration.

DO I STILL NEED TO DO WATER CHANGES?

Coral population and uptake will determine whether or not water changes are sufficient for the continual growth of a reef aquarium. Lowered concentrations of trace elements can reduce or slow coral development and prevent optimal colouration. Utilising Reef Anabolics Trace Elements Support System will reintroduce trace elements back into your reef aquarium at stable concentrations allowing for longer periods of time without water changes.

I HAVE NOTICED A BROWN RESIDUE ON THE BOTTOM OF MY CALCIUM MIX. WHAT IS THIS?

The brown residue by-product is the precipitation of iron binding with unwanted compounds in the solution. We recommend using Reef Anabolics Macro Elements in conjunction with the Reef Anabolics Trace Elements Support System. Utilising Reef Anabolics pharmaceutical grade Macro Elements will limit by-products from accumulating, keeping your corals vibrant and healthy.

CAN I USE SODIUM BICARBONATE FOR MY ALKALINITY SOLUTION?

Reef Anabolics Trace Elements Support System is formulated to be mixed with Reef Anabolics Sodium Carbonate (Soda Ash) at 95,000ppm.

If your preference is Reef Anabolics Sodium Bicarbonate, mix 6ml of Reef Anabolics Reef Halogen solution per 1L of Reef Anabolics Sodium Bicarbonate. This will prevent over-dosing of Reef Anabolics Reef Halogen.

CAN I USE REEF ANABOLICS TRACE ELEMENTS SUPPORT SYSTEM WITH A CALCIUM REACTOR?

When using a calcium reactor, you will need to find your dKH consumption per day for your reef aquarium. Once dKH consumption per day has been established, for a 1000L reef aquarium apply the ratio of 2ml per 0.5dKH.

There are four bottles within the Reef Anabolics Trace Elements Support System:

1. Reef Booster
2. Reef Halogen
3. Reef Growth
4. Reef Metal Pro

A minimum of four dosing stations are required to utilise the Reef Anabolics Trace Elements Support System with a calcium reactor.

Reef Anabolics Reef Booster will be made up with 2L of RODI water. Once mixed, daily dosing of 1ml per 100L of the system's full volume (for a heavily stocked tank). For standard systems not heavily stocked, dose 50% of the recommended dose.

Each bottle is 1L. With an average of 0.5dkh-1dkh per day, you'll find the 1L pack to last between 250-500 days.

As an example, if the consumption of the reef aquarium is 0.5dkh per day, the dosage rate for the remaining bottles would be:

- Reef Halogen 2ml/day (straight solution)
- Reef Growth 2ml/day (straight solution)
- Reef Metals 2ml/day (straight solution)

HOW DO I MIX REEF ANABOLICS MACRO ELEMENTS AS TWO-PART DOSING (CALCIUM AND ALKALINITY)?

Calcium: 136 grams of Reef Anabolics Calcium Chloride Dihydrate per 1L RODI water (37,000ppm).

Alkalinity: 100 grams of Reef Anabolics Sodium Carbonate (Soda Ash) per 1L RODI water (95,000ppm).

Mix calcium and alkalinity in two separate dosing containers as per above instructions.

To prevent any over-dosing or accumulation of by-products, we recommend utilising the Reef Anabolics Trace Elements Support System with Reef Anabolics Macro Elements.

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