

aquaLife® Reef Café

FAQ

Q. What ions and micronutrients are in reef café brew base?

A. Sodium, potassium, magnesium, chloride, sulfate, and acetate.

Q. What do the ions and micronutrients in reef café do?

A. Because Reef Café is intended for use in saltwater aquariums, the ions are necessary to balance the product osmotically with the seawater in the tank. The micronutrient, acetate, feeds beneficial bacteria that reduce nitrate. Sulfate is required in the metabolism of algae, including the zooxanthellae in corals.

Q. How does the product compare to live foods?

A. Because any live food is mostly water, the nutrients in our phyto- and zooplankton ingredients are actually more concentrated than would be found in live organisms. All captive fish should receive live foods, at least occasionally, to provide variety, to stimulate a vigorous feeding response, and to help establish live food organisms in the aquarium. No single food is “perfect” for a mixed reef tank.

Q. Do I need to refrigerate it after I open it?

A. Reef Café is designed to be shelf-stable at room temperature for at least one year, but as with any other food, refrigeration will prolong its shelf life.

Q. How and why did you choose the ingredients you chose for the formula?

A. We wanted to design a product that would provide the maximum in reef nutrition, with as much flexibility in application as possible, that would be shelf stable and a good value for the consumer. These considerations were foremost in our choice of ingredients and their proportions.

Q. Most companies have a bunch of individual products to do what you say Reef Café does in one. I have been told you cannot mix the various components, such as amino acids, in one bottle. Is this correct? Why did you choose to put everything in one bottle?

A. No plausible reason exists for keeping organic food supplement components in separate bottles. Individual vitamins, amino acids, and growth factors

will, under proper conditions of storage, remain intact and wholesome.

On the other hand, inorganic supplements, such as iron, magnesium or alkalinity products, might indeed react with each other if placed in the same container. This is why, for example, reef calcium/alkalinity products are “Part A” and “Part B.”

Putting all the essential reef nutrition components into one bottle provides the best value for the consumer and reduces packaging waste.



Q. Do I need any other food source for corals with Reef Café?

A. When used as directed, no additional food should be required. Using other foods in conjunction with Reef Café should not cause problems, however, as long as the total amount of foods added is

not excessive.

As stated above, we recommend feeding live foods from time to time, as there is no one food that can be considered “perfect,” for a mixed reef aquarium.

Note: The state of research on coral nutrition is such that this question is technically impossible to answer. Only a limited number of coral species available to aquarium hobbyists have been evaluated in terms of their nutritional requirements. While we can deduce probable nutritional needs based on the available research, this is an area of developing science. Because of the wide range of species, combinations of species in individual situations, and a host of other factors, the best approach is to provide a wide variety of whole foods and nutrients, allowing organisms to harvest them at a rate optimal for each organism. This is exactly what we have tried to do with our reef care product line. With Reef Café, we have brought the best features of our other products together in a compatible format that can be customized to meet the needs of any reef tank.

Q. What other products does a reef tank need other than Reef Café?

A. It depends. Most reef tanks require a calcium supplement, for example, along with a KH and magnesium supplement. Reef Café is designed to meet the nutritional needs of corals, not to maintain water chemistry.

Q. I do not want to do the refill program do I have any other way to get these formulas or something

like them from you?

A. Check out our Liquid CALA-FIN, our PHYTO-FIN and AMINO GLOW products. They have the same quality ingredients as Reef Café at somewhat different concentrations. Make sure to follow label directions regarding the proper use of any of our products.

Q. I am having nitrate and algae issues. What is the best recipe for that?

A. You won't get rid of these problems by changing foods. Algae blooms are usually associated with excessive levels of nitrate, phosphate and organic matter. Using a protein skimmer of proper size for the aquarium should help reduce organic matter. Nitrate and phosphate can be reduced by water changes, and by adding certain organic molecules to stimulate the growth of nitrate- and phosphate-removing beneficial bacteria. Algae growth also responds to the spectrum, intensity and duration of lighting above the tank. No one factor can be cited as responsible for this problem in every case.

That said, once the causes of the problems are identified and remedied, you should be able to resume using Reef Café (or any other food, for that matter) without worry, provided feeding is not excessive, and that proper maintenance keeps the water chemistry within recognized optimal ranges.

Q. How does the Amino Shot aid in the elimination of phosphate and nitrate?

A. Aside from physically removing nitrate and phosphate by water changes, the best way to keep these two often problematic ions in check is through their conversion by bacterial activity. Nobody knows which specific bacteria are responsible for carrying out these conversions, but we do know that their growth can be encouraged by providing them with nutrient substrates. These nutrient substrates include amino acids, simple sugars, and some other simple organic molecules, like alcohols. Each of these has advantages and disadvantages. We have chosen a combination of these compounds to include in Reef Café, based on our judgment as to the most efficacious and cost effective options.

Q. My Reef Café smells really bad. Is it ok and what should I do?

A. The product definitely has an odor, but most people would not classify that odor as "really bad." A putrefied smell is an indication of bacterial contamination and decomposition. In the unlikely event that this occurs, you should discard the product, rinse the bottle well with hot water, allow it to drain dry, and return to the store for a refill. Take care not to contaminate the product by inserting a utensil, for example a dropper, into the bottle. Store the product in a cool, dark place. Refrigeration will help prevent bacterial growth, also.

If you are unhappy with Reef Café, you may return it to your retail dealer, under the terms of the individual dealer's defective returns policy. You may also return

the product, along with a copy of the sales receipt showing the purchase date, to Aquarium Life Support Systems, and we will replace it at no charge. Replacement is limited to one year from the date of purchase.

Q. Will my protein skimmer take out the food when I feed it?

A. As with many reef foods, we recommend turning off the skimmer for about thirty minutes while feeding Reef Café to your tank. Skimming can remove important dissolved nutrients as well as fine particulate matter from the tank.

Q. Why did you choose Spirulina and Chlorella and how does it compare to saltwater phytoplankton as a nutrient source for reef tanks?

A. Both these components are cultured under strict quality control for use as additives in human food. Their nutritional profile, safety and purity have been thoroughly documented. Obtaining similar information for other phytoplankton depends upon its availability. Only a few studies of marine phytoplankton nutrient content have been carried out. Here is the abstract of one such study:

The nutrition values of microalgae, *Nannochloropsis oculata*, in different growth phases were analyzed. The results indicated growth phase had effects on the main nutrition values of *N. oculata*. The algae in exponential phase have the highest crude protein content (33.99%) and the lowest (28.33%) in stationary phase. But the algae in stationary phase and phase of declining relative growth had higher amino acid content, 225.02mg.g⁻¹ and 214.82mg.g⁻¹ respectively. The algae in exponential phase had the lowest amino acid content (98.87mg.g⁻¹). The total lipid content of algae in phase of declining relative growth was significantly higher than those in exponential phase and stationary phase. As the alga grew, the composition of fatty acid was changing and the compositions of EPA and PUFA declining. From the viewpoint of nutritional value and growth characteristics of microalgae, the phase of declining relative growth is the best harvest time of *N. oculata* under the batch culture model.

As noted, the nutritional value of live phytoplankton can change, depending upon the age of the culture. This makes comparing our product to a live cultured product challenging. Total crude protein content of the Phyto-Frappe component of Reef Café is greater than the maximum reported amount for *Nannochloropsis* (an advertised component of DT's Phytoplankton), for example.

Q. I was told Spirulina is a bacteria and can cause algae problems more so than other phytoplankton. Is that true?

A. *Spirulina* is a prokaryotic photosynthetic organism of the group Cyanobacteria, but microbiologists consider this group to be distinct from the Eubacteria, the group that contains, for example, the bacteria in yogurt. Because the *Spirulina* cells in Reef Café are dead, they cannot reproduce and cause an algae

bloom. So the claims mentioned in your question are mostly false.

Q. I am buying a product that claims to be a vitamin for corals. Do I need a vitamin for corals to use with Reef Café?

A. No.

Q. Your product lacks XYZ and I was told you need that and it does thus and such. Is that true?

A. Our formulations are based on the best available scientific evidence. Claims that specific substances are required by reef organisms should be supported by evidence. We will be happy to entertain questions regarding any specific allegations of a deficiency for which supporting evidence is supplied from the scientific literature.

Q. What amino acids are in reef cafe and why does it not have all of them in it?

A. Actually, they are all there if the Reef Café recipe includes both ZooKa-Mocha and Phyto-Frappe, as these components contain whole freeze dried organisms with a full range of amino acids in their proteins. The ADDED amino acids are: alanine, histidine, leucine, and valine. These were chosen because they are known to be taken up by corals from the surrounding water.

Q. Why did you choose Calanus whole and fine over other plankton?

A. We wanted a product of sufficient purity and quality that it can be used in human food, and which offered a good nutritional profile for use in feeding corals and other marine organisms. Calanus met these criteria easily, while also providing astaxanthin, which helps fish maintain vibrant coloration.

Q. What is in the Brew Base and do I need it to go with the other shots?

A. See above for ionic composition of Brew Base. All the shots are made using the Brew Base as the liquid phase. You could go without it, but the resulting mixture would be highly concentrated, and therefore would need to be added in smaller quantities. Over-concentration of the organic components also shortens the shelf life.

Q. Do fish eat and/or benefit from Reef Café?

A. Planktivorous fish eat the whole Calanus in Reef Café with great relish.

Q. What do the simple sugars do in the formula?

A. Some research suggests corals are able to take up simple sugars from the environment, probably for the benefit of their zooxanthellae. Simple sugars in low concentration also help stimulate the growth of beneficial bacteria that reduce nitrate and phosphate.

Q. Why is there vitamin C in the formula? There is no fruit in the ocean how do corals get that in the

ocean?

A. Vitamin C is an essential vitamin for all living organisms and participates in numerous physiological reactions as an electron donor. Many seaweeds, microalgae, and invertebrates, but not teleost fishes, can synthesize their own vitamin C. All organisms that cannot synthesize the vitamin need to obtain it from some external source, i.e., the consumption of other organisms that do produce it. Recent (2016) research has shown that corals need vitamin C to manufacture their carbonate skeletons.
<https://www.sciencenews.org/article/corals-need-take-their-vitamin-c>

Q. I was told corals get everything they need from light, so why do I need to feed my corals?

A. The information you have been given is incorrect. Corals in their natural habitat are regularly observed feeding. Many feed at night.

Q. Can I get a list of the exact ingredients in Reef Café? If not, why?

A. Sorry, the exact formula is proprietary, for the same reasons that the formulas for Coca-Cola, McDonald's Special Sauce, and KFC's "22 herbs and spices" are all non-public.

Q. Why did you do a refill program?

A. Refill programs eliminate a lot of packaging waste, and that is better for the environment than sending a bunch of empty bottles to the landfill. It also provides a better value for the consumer, by eliminating the costs associated with producing a one-time-use product.

Q. When you say you do small batch production what does that mean and why is that good?

A. There is no accepted definition of "small batch production," but we believe that making the product a few hundred bottles at a time allows us to provide a fresher, more carefully quality-controlled product than would be the case if we made a huge vat and allowed product to sit in the warehouse for months before shipping to retailers.

Q. If you are doing a refill bottle will my bottle get contaminated and need cleaning?

A. There is always that chance. We recommend rinsing the container thoroughly with hot tap water and allowing it to drain dry each time before taking it in for a refill.

Q. Why is the product not available online?

A. At AquaLife, we believe that the independent, brick-and-mortar retailer is the lifeblood of the aquarium hobby, and cannot be adequately replaced by online vendors. To that end, we make the effort to design products that provide results, that are based upon good science, that provide good value for the consumer, and that allow the local dealer to succeed in an increasingly competitive marketplace.