Fauna Marin BACTO REEF BALLS

Bacto Reef Balls are the first of its kind to feature active gel balls for marine aquariums. Each Reef Ball is packed with marine bacteria and enzymes, which are steadily released into the water column. Such act enables bacteria, enzymes and the corresponding bacteria supply to be depot-controlled for the first time.

Long-chain biopolymers, which dissolve slowly in seawater serve as a basis for this. They are the key compounds that release the stored bacteria and enzymes. This characteristic occurs automatically and is supplied in the correct proportions.

Bacto Reef Balls are designed to dissolve completely in about 2-3 weeks. The amount of time it will take for the balls to dissolve will depend on the amount of nutrients in the aquarium water. The flow rate going through the balls also play a role in the ball’s lifespan. Due to the quantity of balls needed for a single dosage, the required dosage can easily be adjusted to suit the needs of your aquarium.

Estimated Duration of Dosages by Container Size

A 100 ml container contains about 110 Bacto Reef Balls (BRB).

With an average dose of 2-3 BRB per 100 liters (26 US Gallon) and a duration of 14 days, a 100 liter (26 US Gallon) aquarium can be supplied for up to 70 weeks. For expected dosage duration, please refer to the information below:

- 100 ml container can supply a 100 liter (26 US Gallon) aquarium for 70 weeks
- 250 ml container can supply a 250 liter (66 US Gallon) aquarium for 70 weeks
- 500 ml container can supply a 500 liter (132 US Gallon) aquarium for 70 weeks

By following the average dosage, your aquarium will undergo a slight nutrient reduction and/or become more stabilized. This dosage amount will also ensure sufficient detritus breakdown.

The above calculated averages are, of course, subject to the aquarium’s nutrient fluctuations. With high nutrient content and strong flow, the spheres dissolve more rapidly and therefore significantly increase the demand for more BRB. It is important to supply your aquarium with the correct dosage and also find proper placement for the BRB.

If a greater effect is desired, the dosage must be increased.
Expected Shelf Life

We recommend Bacto Reef Balls be consumed within 12 months of opening the package.

Important Information

The bacteria balls are activated by the nutrients present in the aquarium. The higher the nutrient level, the faster the balls dissolve.

Bacto Reef Balls are not a substitute for direct measures against excess PO4 levels; they only replace an adsorber when used for the long term. BRB are designed to maintain a stable nutrient situation.

If your aquarium nutrient levels are too high, we recommend using our Seawater Research Laboratory testing service for specific data and advice. We will be more than happy to show you the best way to optimize your aquarium system.

Combining w/ Other Fauna Marin Products

Fauna Marin Bacto Reef Balls contain a highly concentrated mix of all the important classic circulatory bacteria species. It also contains bacteria and enzymes that effectively break-down detritus and organic contaminants. When it comes to combining other bacteria-based products, there are some that can be used with BRB and others that cannot.

- Bacto Reef Balls can be safely dosed together with Fauna Marin Bacto Blend.
  - When adding both, use half of the indicated dosage for Bacto Blend.

- Bacto Reef Balls **should not** be dosed with Bacto Therapy.
  - Due to the sulfur bacteria, the positive properties of our bacteria will be disturbed and will not allow for a healthy nitrogen cycle to be built up.

- Bacto Reef Balls can be safely used as a bacterial supply in zeolite systems such as our Fauna Marin Zeo-Light System.
  - When adding these products, a reduced dosage of 1-2 balls becomes sufficient.
Recommended Placement and Tips

Bacto Reef Balls provide the highest level of benefits when they are placed in an adequate area of your filter. For best results, please follow the recommendations and tips noted below:

- Place BRB inside a filter bag. This filter bag should then be placed in a low-flow area of the filter.
- Position the balls after the skimmer or UV filter.

Due to the extremely high bacteria count and the constant release of bacteria, it is not necessary to switch off the UV and ozone devices.

Bacto Reef Balls are in a bacterial solution that optimally protects them and stabilizes the gel. Do not pour this liquid away.

When removing the remaining balls from the aquarium, be sure to use a spoon or fork. It is not a problem if some liquid spills into the aquarium - on the contrary: it supports the bacteria.

If necessary, individual Bacto Reef Balls can be cut in half since the balls consist of a homogenous bacteria/gel mass. It makes more sense, however, to begin the dosage with the minimum amount or half of the given dosage, and then add or remove balls.

If you have overdosed, reduce the number of gel balls by simply removing them from the aquarium.

We recommend you start with half the dosage if:
  - Your aquarium is over 2 years old
  - Your aquarium has high nutrients

If you notice the water getting cloudy after use, the balls have dissolved too quickly and/or have been sucked up by a pump.

Please make sure that this does not happen during normal operation.
Use in Filters and Reactors

Bacto Reef Balls should not be used in pellet filters or multi-reactors as the flow rate is too high. The deposit balls should also not be added directly to filter materials such as coal in a reactor filter, since the mechanical abrasion is too high.

Application in Nutrient-Poor Aquariums

If your aquarium is already nutrient-poor or uses a zeolite system, cut the dosage in half.

Application in Nano Aquariums w/out Skimming

Dose the bacteria according to the dosage instructions and perform regular water changes of about 20% per week with our Fauna Marin Professional Sea Salt.

Application with Bio-Pellet Filter

Bacto Reef Balls are not a substitute for pellet filters, but they support their performance considerably. You should also use only half the dosage.

Application with Carbon Dosing

If you use vodka or products for the reduction of NO3 / PO4, reduce their dosage by at least half and check the nutrient values on a regular basis.
Technical Specifications

Product Content:
- Bacteria and enzyme mixture in gel polymer shell for seawater aquariums
- Billions of nitrification and denitrification filter bacteria (sea-water type)
- Highly active marine enzymes.

The product does not contain any freely available carbon sources!

<table>
<thead>
<tr>
<th>Avg. Quantity in Container</th>
<th>Approx. 110 transparent gel balls per 100 ml filling quantity plus bacterial stabilization solution</th>
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</thead>
<tbody>
<tr>
<td>Normal Dosage</td>
<td>2-3 balls per 100 liters ca every 2-3 weeks.</td>
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<tr>
<td>Shelf Life</td>
<td>Consume within 12 months of opening package</td>
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<tr>
<td>Proper Storage</td>
<td>Store in a cool and dry place. Do not allow the balls to dry out. Storing product in the refrigerator is acceptable, but we do not generally recommend that you store or use any bacteria products close to food.</td>
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</tbody>
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Safety instructions

Keep container tightly closed, away from children and pets, wash hands after use.

Fauna Marin Bacto Reef Balls
Product Numbers
14405 (100ml), 14410 (250ml), 14415 (500ml)