

# Main Features

## Synopsis

The AZ-NO<sub>3</sub> (Absolute Zero - Nitrates™) product works entirely by aerobic Cellular Respiration on the target Nitrate molecule, which is then removed by the Protein Skimmer. The oxidoreductases necessary for these processes are the chemical mechanism of an enzyme action.

In the most simplest of explanations, AZ-NO<sub>3</sub> can be considered an essential food, required by the active enzyme maltase that functions as a cellular respirator. The manufacturing process renders this product as an undesirable food to certain detrimental enzyme (amylase and invertase) that could uncontrollably proliferate in the aquarium.

Our product utilizes a specific enzyme in the maltase group to activate the oxidoreductases necessary to reduce nitrates by cellular respiration in the aquarium. The product itself does not contain this enzyme, but can be thought of more like a seed, a seed contains the germ (plant) and the food for the plant to grow. The mature plant then becomes the basic food product utilized.

The active ingredient in our product is Cozymase which functions in the oxidation of proteins and of many other compounds important in the intermediary metabolism and the resulting active enzyme Maltase in the aquarium. The Massecuite is food for both the Cozymase to develop and the resultant Maltase to thrive.

Fourth Generation Formula: The NEW AZ-NO<sub>3</sub> with it's new "Cold" filtering and processing techniques reduces the clouding effect in even poorly-maintained (ionically-imbalanced) marine aquariums. Its nitrate-removal ability has sped up 2x as fast as before. In addition, its shelf-life is now close to indefinite when un-opened. Or up to 60 days when opened and stored in refrigerator.

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## Dosage

The proper denitrifying dosage of the product is 1/4 ounce, daily, for each 50 to 60 gallons of water in the marine aquarium system, until nitrates are undetectable. Overdosing, (up to double the amount) is preferred to underdosing and is not harmful to livestock. Larger aquariums will require a larger dose, but nitrates are normally reduced to zero within the same time period. Many aquarists inadvertently introduce nitrates on a continuing basis, through water changes, food, additives, etc., therefore requiring that they maintain the enzyme activity at a low maintenance dosage to hold nitrates in check. Initially the maintenance dosage should be 1/2 of the denitrifying dosage, steadily decreasing the amount of AZ-NO<sub>3</sub> used until nitrates can be maintained at an undetectable level. The intent is to slowly wean the aquarium off the AZ-NO<sub>3</sub> product entirely, allowing the natural denitrification properties of the aquariums live rock and/or plenum to come into full functioning. The maintenance dosage can be rescheduled for bi-weekly or even weekly additions as the live rock or substrate develops to it's full potential.

Effects AZ-NO<sub>3</sub> provides many other benefits besides nitrate reduction. Upon addition of the product to

the aquarium, you will notice that the Protein Skimmer becomes more efficient and remains that way for approximately 30 days after the final use of the AZ-NO<sub>3</sub>. In addition, as the enzymes become active, all sediments and pre-filters in the aquarium remove larger amounts of undesirable organics, thus requiring more frequent filter changing.

- It does not interfere with any nitrate test kits to give you illusionQ and fake denitrating effects like the other product (See below "Latest Update").
- It brings down & maintains your nitrate from as high as 100ppm or more to an Absolute-Zero level. Hence the name.
- Safe for reef and fish-mainly marine systems (saltwater use only). Will not harm your delicate corals.
- Works with an efficient protein skimmer to export the bonded nitrate compounds. An alternative way is to employ Polyfilter Pads to adsorb the bonded nitrate compounds.
- Also dramatically enhance the efficiency of your protein skimmer in the removal of other detrimental dissolved organics.
- Contains absolutely no yeast nor complex sugar which will cause adverse effects & other unpredictable complications upon long term usage.
- Since that it is not bacterial-based. Its potency will not be affected by any other additives, medications and supplements. It is fully-compatible with any other chemical engineered for aquatic use.
- Fully-tested by actual hobbyists with all kinds of marine systems and different starting levels of nitrate concentration.
- Newly copyrighted formula developed by a group of Biochemists / Hydroculturists. Opened bottles should be refrigerated or used up within 60 days to preserve maximum freshness. 240-ml size.