



NITRATE (NO₃) TEST KIT

Contents:

Nitrate reagent A
Nitrate reagent B
Nitrate reagent C
6ml syringe
2 x glass vials
Comparator
Nitrate standard

Nitrate in the Aquarium

Maintaining low levels of nitrate (NO₃) and phosphate are crucial for success in marine aquaria with regards to the health of fish and corals and acts as a food for the growth of nuisance algae.

Excessive levels of nitrate give rise to problems controlling algae, maintaining pH, and is a limiting factor in achieving good coloration in corals.

Natural seawater has an average nitrate concentration of below 0.1ppm with levels below 2ppm being recommended for reef aquariums.

IMPORTANT INFORMATION FOR SPS REEF SYSTEMS

In order to maintain strong colouration in SPS corals we recommend that you maintain the nitrate levels at or below 0.25ppm.

This high sensitivity test kit will allow the user to monitor levels of nitrate measured as NO₃, or as total nitrogen N-NO₃, within the aquarium so that they may be maintained by way of regular water changes or alternate methods of Nitrate removal or breakdown such as the D-D Bio Pellet products.

The test kit has both a high and a low range scale allowing it to be used to determine the exact level of nitrate in your aquarium.

High Range 0 - 48 ppm NO₃

Low Range 0 - 4 ppm NO₃

REFILLS ARE AVAILABLE FOR THIS TEST KIT

Instructions for use.

Important:

A - Rinse all test tubes, stopper/caps and syringes in reverse osmosis or de-ionized water several times before and after use to eliminate contamination which will affect the accuracy of the test kit.

Use of printed tissue or detergent on cleaning cloths to dry the vial will lead to contamination and a false positive reading. We recommend allowing to air dry.

B - Cross use of syringes, or test vials can result in contamination during testing leading to false test results. To ensure ongoing accuracy long term use only the correct components for each part of the test.

READ IN COMBINATION WITH THE PICTOGRAPHIC INSTRUCTIONS ON THE TEST CARD

Step 1: Using the 6 ml syringe supplied, measure out the amount of sample water to be tested, depending on the range of test, and add the same amount to each of the two glass vials.

Low range test

Add 12ml of tank water.

High range test

Add 1ml of tank water + 11ml of RO or DI water.

Steps 2-8 are the same for both high and low range tests. **The comparator should only be used for the more sensitive levels of nitrate, i.e. below 2ppm in the low range test and below 24ppm in the high range test.**

Step 2: Place one vial into the hole in the comparator furthest away from you and ensure that it is securely pushed down to the bottom. This will act as the standard on the low range test and will adjust the colour viewed for any discolouration within the tank water.

Step 3: Shake reagent bottle A for at least 30 seconds and then add **6 drops** to the sample test vial. Cap the reagent bottle immediately after use.

Step 4: Shake reagent bottle B for at least 10 seconds and then add **4 drops** to the sample test vial. Cap the reagent bottle immediately after use.

Step 5: Shake reagent bottle C for at least 10 seconds and then add **4 drops** to the sample test vial. Cap the reagent bottle immediately after use.

Step 6: Cap the sample test vial using the stopper and shake for exactly 1 minute, then remove the stopper.

Step 7: Place the sample vial into the comparator alongside the standard sample and ensure that it is securely pushed down to the bottom. Place the comparator onto the colour chart with the vial containing the sample water and reagents nearest towards you.

Step 8: Wait exactly 9 mins for the colour to develop, then in good light, slide the comparator along the colour chart from right to left, looking from above, until the colour observed in the sample vial matches that shown in the standard vial.

If the colour in the test vial is a deeper red than the 1ppm (12ppm) colour remove the sample vial from the comparator, place vial directly on to the color chart and look for a colour match in the 2 - 4 ppm (24 - 48ppm) range.

The colour will remain stable for further **6 mins**, therefore after **15 mins** from starting the test the colour becomes invalid.

The nitrate level present in the sample can then be read off the colour card, either above the comparator position for low range tests or below for high range tests, depending on the type of test being performed.

If a level below 3ppm NO₃ is attained on the high range test, it is recommended that the test is conducted again using the low range procedure.

The colour card shows the results as both nitrate NO₃ and also total nitrogen N-NO₃. The recommendations given are as nitrate NO₃ as this scale is more commonly used by the aquarist.

Reference Solution

The kit includes a reference solution and we recommend that you use this periodically to check the validity of your results. There is sufficient reference solution for 5 tests. Take care not to contaminate the reference solution and replace the lid immediately after use.

WARNING INFORMATION



CORROSIVE



TOXIC

Contains - Acetic acid, Propanol, Cadmium Flammable. Harmful by inhalation.

Causes severe burns. May cause cancer.

Keep locked up and out of reach of children.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After contact with skin, wash off immediately with plenty of water.

Wear suitable protective clothing. Wear suitable gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

If swallowed seek medical advice immediately and show this container or label.

Avoid exposure - obtain special instruction before use.

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Instructions available for download at our website:

www.theaquariumsolution.com

