

## Instruction leaflet

### Tetratest $\text{NH}_3 / \text{NH}_4^+$ (ammonia) For Fresh and Seawater

For an accurate measurement of the total ammonia content in fresh and seawater.

#### Why test?

Organic nitrogen containing material such as fish waste, uneaten food and decomposing plants are broken down in different phases by specialized microorganisms. Total ammonia is degraded to nitrite and finally nitrate. The most harmful nitrogen containing material in your aquarium is ammonia ( $\text{NH}_3$ ). At a pH value above 7, increasing amounts of the toxic ammonia ( $\text{NH}_3$ ) will appear. At a pH value below 7, ammonia is present as the non-toxic ammonium ( $\text{NH}_4^+$ ). Total ammonia ( $\text{NH}_3/\text{NH}_4^+$ ) in concentrations greater than 0.25 mg/l and if present for extended periods, is harmful to your fish and an indicator that your biological filtration system is not working properly.

#### How to test?

Please read this section completely before starting the test.

1. Rinse the test vial with the water to be tested. Fill the test vial to the 5 ml (cc) mark with the water to be tested.

**Important:** the temperature of the water to be tested must range from 20° to 30° C (68° to 86° F).

2. Hold reagent bottle # 1 upside down and add 14 drops to the test vial.
  3. Close the vial and shake gently.
  4. Open vial, hold reagent bottle # 2 upside down and add 7 drops to the test vial.
  5. Shake the vial gently.
  6. Hold reagent bottle # 3 upside down and add 7 drops to the test vial.
  7. Shake the vial gently.
  8. Allow 20 minutes (room temperature) for the development of the color.
  9. Hold the vial and the color scale vertically and match the coloring of the test solution with the closest color on the color scale. Read the corresponding value.
- After each test, rinse vial thoroughly with tap water.

#### Values and Assessment

0 mg/l:	ideal conditions
0.25 mg/l:	toxic in the long term
1.5 mg/l:	toxic for fish, disrupted breakdown of harmful substances
3 mg/l:	fatal for sensitive species, defective breakdown of harmful substances
5 mg/l:	fatal poisoning, the aquarium is completely overloaded

#### Your Ammonia Levels are too high?

- Carry out a partial water change: using a TetraTec Gravel Cleaner, siphon 20% of the water from your polluted aquarium. The Gravel Cleaner will remove all plant and food remains from the bottom of your aquarium. Always condition your clean replacement water with TetraAqua AquaSafe to neutralize any dissolved chlorine and heavy metals.
- Clean your biological filter media in old aquarium water to avoid destroying the specialized microorganisms: their presence is essential to the breakdown of harmful substances. Add TetraAqua Bactozym. It organically breaks down the pollutants and accelerates the breakdown of ammonia and nitrite by activating the nitrifying bacteria in the filter. Regular cleaning will prevent it from silting and clogging up.
- Measure the oxygen level in your aquarium. The specialized microorganisms need oxygen to break down the nitrogen material. Aerate your aquarium during the night if the oxygen level is 20% below saturation. Tetra also offers a Tetratest Oxygen Test Kit.
- Measure the pH level in your aquarium. The toxic ammonia concentration increases as the pH level rises above 7. In a freshwater aquarium with a pH value above 7.5, it is necessary to reduce the pH level, for instance with Tetra pH/KH Minus or with the Tetra  $\text{CO}_2$  Optimat.

### **Tips on Water Quality Maintenance**

- Ask your retailer to advise you on the number and the size of the fish a tank of a given capacity can reasonably support.
- Carry out regular partial water changes and remove plant and food remains from the bottom of the aquarium using the Tetratec Gravel Cleaner. Always condition your clean replacement water with TetraAqua AquaSafe to neutralize any dissolved chlorine and heavy metals.
- Clean your filter regularly in old aquarium water to avoid destroying the specialized microorganisms; their presence is essential to the breakdown of harmful substances.
- You may feed your fish 3 or even 4 times a day but never feed fish more food than they can eat over a period of 3 to 5 minutes. We recommend you use only Tetra foods, which are prepared and packaged to eliminate any possibility of contamination.

**Warning:**

**Keep out of reach of children! Harmful! Inflammable! Irritates the eyes and the skin! Contains lithium hydroxide, phenol and 2-Propanol. Harmful if contact with skin occurs or if ingested. In case of accidental ingestion, immediately seek medical assistance and show the package or the label. Keep locked up.**

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