

TetraTest CO₂ (carbon dioxide)

for freshwater

For the precise measurement of CO₂ concentrations in fresh water.

Why test CO₂ concentrations?

Just like fish, plants also "breathe" by absorbing oxygen (O₂) and emitting carbon dioxide (CO₂). Under the influence of light, however, plants can carry out a process, which is known as "photosynthesis". During photosynthesis, CO₂ is absorbed (as food) and O₂ is emitted. For this reason, plants require a constant supply of CO₂ to ensure their strong and healthy growth. Good ventilation, e.g. using an air stone, ensures that your fish receive a plentiful supply of oxygen, but at the same time reduces the CO₂ concentration, thus minimizing the most essential form of nutrition for your aquatic plants.

By regularly controlling the CO₂ values, you can ensure that sufficient carbon dioxide is available for healthy plant growth. The following values are guidelines for CO₂ concentrations in ventilated aquaria: 1) A CO₂ concentration of between 0.5 and 1 mg/l is too low for rich plant growth. 2) Long-term values of between 5 and 15 mg/l ensure lush and rich plant growth. 3) CO₂ values regularly exceeding 20 mg/l can be harmful to your fish.

Test Method:

Please read the instructions before proceeding with the test.

1. Rinse the test vials with the sample water.
2. Fill the test vials with sample water to the 20 ml mark.
3. Place the two vials side by side on the white surface of the color chart. One test vial (A) is required for comparative purposes, while vial (B) is used for the measurement.
4. Shake the bottle containing test liquid 1 and add 5 drops to test vial B.
5. Shake the bottle containing test liquid 2 and add it, drop by drop, to test vial B.
6. Shake vial B after each drop of liquid 2 and count the number of drops required for the color to become pale pink.
7. Once test vial B has remained pale pink (see color chart) for 30 seconds, the measurement is complete and the CO₂ concentration (in mg per liter) can be calculated. The easiest way to determine the color change is to look down into the vials, comparing the color in test vial B with the color on the color chart and with the control vial (A).

The number of drops of test liquid 2 required to make the water turn pale pink is multiplied by 2 to obtain the CO₂ concentration. In other words, 5 drops of test liquid 2 (5 x 2) yield a value of 10 mg of CO₂ per liter.

On completion of the test, carefully rinse the test vials with tap water.

After Completion of the Test:

Make a note of the results for future comparison. If the CO₂ content of the water is too low, you can increase the value to an optimum range using a CO₂ diffuser (e.g. the Tetra CO₂ system). An excessive CO₂ concentration can be reduced by ventilating the aquarium by means of an air stone and air pump, e.g. by TetraTec.

Warning: Keep out of reach of children!
Highly flammable! Contains ethyl alcohol.
Keep away from sources of ignition.

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