# API PH GRADIENT CHART

7.4

7.8

8.0

8.2

8.4

8.8

CREATED BY MATTHEW GALAT | MCGALAT@GMAIL.COM | JAYOE.COM

### **INSTRUCTIONS:**

Read thoroughly before testing.

Do not allow test solution to get into aquarium.

- 1. Rinse a clean test tube with the water to be tested.
- 2. Fill the test tube to the 5 ml line with the water to be tested.
- 3. Add 5 drops of pH Test Solution, holding dropper bottle upside down in a completely vertical position to assure uniformity of drops.
- 4. Cap the test tube and invert tube several times to mix solution. Do not hold finger over open end of tube, as this may affect the test results.

### **DISCLAIMER**

COLORS ARE COLOR MATCHED FROM THE ORIGINAL TEST CARDS, PLEASE CHECK THE COLOR AGAINST THE ACTUAL CARDS YOU HAVE BEFORE CONTINUNG TO BE SURE YOUR COMPUTER SCREEN IS SHOWING THE PROPER SHADE. I AM NOT RESPONSIBILE FOR ANY FALSE TESTS....

YOU HAVE BEEN WARNED.

HOLD TEST Tube Here

# API NH3/4 GRADIENT CHART

0.00<sub>PPM</sub>

0.00 IS IDEAL

0.25<sub>PPM</sub>

0.50PPM

1.00<sub>PPM</sub>

2.00<sub>PPM</sub>

4.00<sub>PPM</sub>

8.00<sub>PPM</sub>

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### **INSTRUCTIONS:**

Read thoroughly before testing. Do not allow test solutions to get into aquarium.

- 1. Rinse a clean test tube with the water to be tested
- 2. Fill the test tube to the 5 ml line with the water to be tested.
- 3. Add 8 drops from Ammonia Test Solution Bottle #1, holding the dropper bottle upside down in a completely vertical position to assure uniformity of drops added to the water sample.
- 4. Add 8 drops from Ammonia Test Solution Bottle #2, holding the dropper bottle upside down in a completely vertical position to assure uniformity of drops added to the water sample.
- 5. Cap the test tube and shake vigorously for 5 seconds. Do not hold finger over the open end of the tube, as this may affect the test results.
- 6. Wait 5 minutes for the color to develop.

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## API NITRITE GRADIENT CHART

0.00<sub>PPM</sub>

0.00 IS IDEAL

0.25PPM

0.50PPM

1.00<sub>PPM</sub>

2.00<sub>PPM</sub>

4.00<sub>PPM</sub>

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HOLD TEST TUBE HERE

### **INSTRUCTIONS:**

Read thoroughly before testing.

Do not allow test solution to get into aquarium.

- 1. Rinse a clean test tube with the water to be tested.
- 2. Fill the test tube to the 5 ml line with the water to be tested.
- 3. Add 5 drops of Nitrite Test Solution, holding dropper bottle upside down in a completely vertical position to assure uniformity of drops added to the

water sample.

4. Cap the test tube and shake the tube for 5 seconds. Do not hold finger over the open end of the tube, as

this may affect test results.

5. Wait 5 minutes for the color to develop.

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# API NITRATE GRADIENT CHART

**O**PPM

0.00 IS IDEAL

**5**PPM

**10**<sub>PPM</sub>

**20**<sub>PPM</sub>

**40**<sub>PPM</sub>

80<sub>PPM</sub>

**160**<sub>PPM</sub>

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HOLD TEST Tube Here

### **INSTRUCTIONS:**

- 1. Rinse a clean test tube with the water to be tested.
- 2. Fill the test tube to the 5 ml line with the water to be tested.
- 3. Add 10 drops from Nitrate Test Solution Bottle #1, holding dropper bottle upside down in a completely vertical position to assure uniformity of drops added to the water sample.
- 4. Cap the test tube and invert tube several times to mix solution. Do not hold finger over the open end of the tube, as this may affect test results.
- 5. Vigorously shake Nitrate Test Solution Bottle #2 for at least 30 seconds. This step is extremely important to insure accuracy of test results. 6. Now add 10 drops from Nitrate Test Solution Bottle
- #2, holding dropper bottle upside down in a completely vertical position to assure uniformity of drops to the water sample.
- 7. Cap the test tube and shake vigorously for one minute. This step is extremely important to insure accuracy of test results.
- 8. Wait 5 minutes for the color to develop.

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### API CALCIUM TEST

#### **INFORMATION:**

Monitoring calcium levels is essential for keeping a successful reef aquarium. Corals and reef invertebrates, such as shrimp, crabs, mollusks and encrusting algae, require calcium to grow and remain healthy. The calcium level drops as it is used by invertebrates or as it reacts with excess phosphate.

### **Testing Tips:**

Having an adequate calcium level is not enough to achieve healthy coral growth, because the growth of corals is also linked to the carbonate hardness (often referred to as KH or alkalinity). All reef organisms rely on the combination of calcium and carbonate to build their skeleton structure by extracting these substances from saltwater. These two building blocks are essential for the growth of corals, crustaceans, mollusks, coralline algae and calcareous forms of macroalgae. So testing for both carbonate hardness and calcium is necessary for successful reef keeping. This test kit reads the calcium concentration in parts per million (ppm), which is equivalent milligrams per liter (mg/L).

### Warning!

Bottle #1 contains Sodium Hydroxide. Causes severe burns. Keep locked up and out of the reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If contact lens is present, remove after 5 minutes, then continue rinsing. Wear suitable gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

#### **INSTRUCTIONS:**

- 1. Rinse a clean test tube with the water being tested.
- 2. Fill the test tube with 5 ml of water to be tested (to the line on the tube).
- 3. Holding the bottle vertically, add 10 drops of Calcium Test Solution Bottle #1, cap the test tube and shake for 10 seconds.
- 4. Shake Calcium Test Solution Bottle #2 vigorously for 10 seconds.
- 5. Holding the bottle vertically, add Calcium Test Solution Bottle #2, drop by drop to the test tube until the solution changes from pink to the blue endpoint. Be sure to count the number of drops added. Cap and shake the test tube between drops.
- 6. As the endpoint is approached, the color will usually change from pink to purple before finally changing to blue. After the purple color forms, only 1-2 more drops should be required to reach the blue endpoint. Use the chart on the back of this insert to determine the calcium level.

#### **ENDPOINT COLOR**

NOTE: To save time, if you think that the salt water being tested contains about 400 mg/L (ppm) calcium, you can add 15 drops of Calcium Test Solution #2 at once, as indicated in Step 5, then cap and shake. If the solution is pink, continue adding drops, one at a time, until the end point is reached. If the solution is blue, then too many drops were added initially, and the test must be repeated.

What the Test Results Mean

Reef aquariums should have a calcium (Ca2+) concentration of between 400 to 500 mg/L (ppm).

### API CALCIUM (Ca2+) TEST CHART

	· /
# of Drops	mg/L (ppm) Calcium (Ca2+)
1	20
2	40
3	60
4	80
5	100
6	120
7	140
8	160
9	180
10	200
11	220
12	240
13	260
14	280
15	300
16	320
17	340
18	360
19	380
20	400
21	420
22	440
23	460
24	480
25	500
26	520

**IDEAL RANGE IN YELLOW** 

## API CUPPER GRADIENT CHART

0.00PPM

0.00 IS IDEAL

Any copper can be a big problem in tanks with coral!

### **INSTRUCTIONS:**

Read thoroughly before testing.

Do not allow test solution to get into aquarium.

- 1. Rinse a clean test tube with the water to be tested.
- 2. Fill the test tube to the 5 ml line with the water to be tested.
- 3. Add 5 drops of Nitrite Test Solution, holding dropper bottle upside down in a completely vertical position to assure uniformity of drops added to the

water sample.

4. Cap the test tube and shake the tube for 5 seconds. Do not hold finger over the open end of the tube, as

this may affect test results.

5. Wait 5 minutes for the color to develop.

0.25<sub>PPM</sub>

0.50PPM

1.00<sub>PPM</sub>

2.00<sub>PPM</sub>

4.00<sub>PPM</sub>

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