



Over
500
Tests

POND MASTER TEST KIT



**TESTS WIDE RANGE pH, AMMONIA,
NITRITE & PHOSPHATE**

• Fast • Easy • Accurate

**MESURE WIDE RANGE pH, AMMONIAQUE,
NITRITES & PHOSPHATES**

• Rapide • Simple • Précis

Includes: 6 Test Bottles, Easy-to-Read Instructions,
Glass Test Tubes & Color Chart

EN

Instructions
in English

FR

Instructions
en français

ES

Instrucciones
en español



Regular
Care



Water Problem
Solving

GUIDE



ENGLISH



To remove childproof safety caps: With one hand, push red tab left with thumb while unscrewing cap with free hand.

After testing is completed, do not pour the test tube contents back into the pond. Rinse the test tube with tap water after each use.

WIDE RANGE pH TEST

Why Test pH?

pH is the measure of acidity or alkalinity of water. A pH reading of 7.0 is neutral, a pH higher than 7.0 is alkaline, and a pH lower than 7.0 is acidic. A healthy pond depends on proper pH balance. Many factors can significantly alter pond water pH, creating an unhealthy environment for pond life. Acid rain, minerals leaching from soil or rain run-off, decomposing plants and animal waste can all contribute to unstable pH levels in the pond.

pH in Ponds

A pH of 7.0 is considered ideal for plants and fish in the pond. Some species of pond plants, such as waterlilies and hyacinths, thrive in slightly acidic water below 7.0. Pond fish prefer an alkaline pH above 7.0. Therefore, an acceptable pH range is 6.8 to 8.2. Extreme pH levels above 8.2 or below 6.8 should be avoided.

Problems of Low pH

Many ponds tend to turn slightly acidic (between 6.8 and 7.0) as the pond life develops. A pH below 6.8 will stress pond inhabitants. A low pH may be caused by increased carbon dioxide

concentrations, overstocking with fish or poor surface agitation. Proper fish stocking, as well as adequate pond filters or fountains, will correct carbon dioxide build-up and help stabilize pH.

A low pH (acidic water) may also be caused by decomposing organic matter, solid waste from fish and birds, and decaying vegetation. The use of API POND-ZYME® SLUDGE DESTROYER, or ECOFIX® SLUDGE DESTROYER and regular pond maintenance will help to eliminate stressful pH fluctuations.

DIRECTIONS FOR TESTING pH

1. Fill a clean test tube with 5 ml of pond water (to the line on the tube).
2. **Add 5 drops of Wide Range Test Solution**, holding dropper bottle upside down in a completely vertical position to assure uniformity of drops.
3. Cap the test tube and invert tube to mix solution. Do not hold finger over open end of tube as this may affect the pH of the test solution.
4. Determine the pH by comparing the color of the solution with those on the pH color chart on back of booklet. The tube should be viewed against the white background in a well-lit area.

Raising or Lowering pH in the Pond

pH results between 5.0 to 6.8 (acidic)

To raise pH use API POND pH UP™. Add 2 teaspoonsful (10 ml) of pH UP for each 50 gallons (189 L). pH should be raised no more than 0.5 units every 24 hours.

pH results between 7.2 to 9.0 (alkaline)

To lower pH use API POND pH DOWN™. Add 1 teaspoonful (5 ml) of API POND pH DOWN for each 50 gallons (189 L) of pond water. pH should be lowered no more than 0.5 units every 24 hours.

AMMONIA TEST

Why Test for Ammonia?

Ammonia is a toxic waste excreted into the pond by fish, birds, and other pond life. The natural process that controls ammonia in the pond is called the biological filter. The biological filter is comprised of nitrifying bacteria that use ammonia as a food source to grow and reproduce. The nitrifying bacteria convert ammonia to nitrite (also toxic) which in turn is converted into non-toxic nitrate. A healthy pond has no detectable ammonia. Newly set-up ponds need time to develop the biological filter. Until sufficient numbers of nitrifying bacteria grow in the pond, ammonia will be detected. Overstocking the pond with fish, uneaten fish food and decomposing vegetation can cause excessive ammonia. Ammonia is highly toxic to all pond life.

What the Test Results Mean

In newly set-up ponds, the ammonia level may surge up to 10 parts per million (ppm) or more and then fall as the biological filter becomes established.

In an established pond, the ammonia level should always be zero. Ammonia levels above 0.5 ppm indicate possible overfeeding, overstocking of fish, or excessive decay of organic matter.

Reducing Ammonia Levels

In newly set-up ponds, ammonia and nitrite levels will rise and then fall in the first few weeks, indicating the formation of the biological filter. However, to protect the fish use API POND AMMO LOCK®, to detoxify ammonia. It's essential to only add a few pond fish for the first few weeks of the initial pond set-up. Test pond water weekly with the API POND WIDE RANGE pH, API AMMONIA, and API NITRITE test kits. After both ammonia and

nitrite levels drop to zero, a few more pond fish can be added. If at any time ammonia is detected, take steps to reduce ammonia, such as cleaning the pond filter and pond bottom of debris, and reduce fish feeding. Make sure adequate oxygenation and surface agitation are provided. If the ammonia level exceeds 0.5 ppm, add AMMO LOCK or make a 25% water change every two days until the ammonia level drops to zero.

DIRECTIONS FOR TESTING AMMONIA

1. Fill a clean test tube with 5 ml of water to be tested (to the line on the tube).
2. **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.
3. **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.
4. **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.
5. **Wait 5 minutes for the color to develop.**
6. Determine the ammonia level by comparing the color of the solution with those on the ammonia color chart on back of booklet. The tube should be viewed against the white background in a well-lit area.

WARNING



AMMONIA TEST SOLUTION #1

Harmful if swallowed • Harmful in contact with skin • Harmful if inhaled • Causes serious eye irritation • Use only in outdoors or in a well-ventilated area • Avoid breathing dust /fume/ gas/mist/vapors/spray • Do not eat, drink or smoke when using this product • Wear protective gloves/protective clothes/eye protection/face protection • Specific treatment (see advice on this label) • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention • IF SWALLOWED: Call a POISON CENTER / Doctor / Physician / first aider / if you feel unwell • IF ON SKIN: Wash with plenty of water and soap • IF INHALED: Remove person to fresh air and keep comfortable for breathing • Rinse mouth • Take off contaminated clothing and wash before reuse • Dispose of contents/container to authorized chemical landfill or if organic to high temperature incineration.

DANGER



AMMONIA TEST SOLUTION #2

May be corrosive to metals • Causes severe skin burns and eye damage • Causes serious eye damage • Harmful to aquatic life • Do not breathe dust / fume / gas / mist / vapors / spray • Wear protective gloves/ protective clothes/ eye protection/face protection • Keep only in original container • Avoid release to environment • IF SWALLOWED: Rinse mouth. DO NOT induce vomiting • IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing • Immediately call a POISON CENTER/Doctor/Physician/first aider • Specific treatment (see advice on this label) • Wash contaminated clothing before reuse • Absorb spillage to prevent material damage • IF INHALED: Remove person to fresh air and keep comfortable for breathing • Store locked up • Dispose of contents/container to authorized chemical landfill or if organic to high temperature incineration.

NITRITE TEST

Why Test For Nitrite?

Fish, frogs, birds and other pond animals release solid waste into the pond water. This waste is turned into toxic ammonia. Nitrifying bacteria in the pond convert toxic ammonia to nitrite (also toxic). Nitrite is then converted to non-toxic nitrate, which is consumed by plants and algae.

Newly set-up ponds have not developed sufficient nitrifying bacteria to detoxify ammonia and nitrite. Ammonia and nitrite will accumulate when the pond is initially set-up, especially if fish are added. Overstocking with pond fish, as well as uneaten fish food, and decomposing vegetation can cause high nitrite levels. Nitrite is highly toxic to pond fish.

What the Test Results Mean

In newly set-up ponds, the nitrite level may surge up to 10 parts per million (ppm) or more and then fall as the nitrifying bacteria become established, forming the biological filter.

In an established pond, the nitrite level should always be zero. A nitrite level of 0.25 ppm or higher indicates possible overfeeding, overstocking of fish, or excessive decay of organic matter.

Reducing Nitrite Levels

In newly set-up ponds, ammonia and nitrite levels will rise and then drop in 2 to 4 weeks, indicating the formation of the biological filter. Therefore, it is essential to only add a few pond fish for the first few weeks of the initial pond set-up. After both ammonia and nitrite levels drop to zero, more pond fish can be added. Make sure adequate oxygenation and surface agitation are provided. If the nitrite level exceeds 0.50 ppm, begin making water changes (25%) every two days until nitrite level drops to 0.25 ppm or less.

Protect Fish from Nitrite Toxicity

Even a low level of nitrite can cause severe stress to pond fish, leading to disease outbreaks and fish death. Nitrite toxicity affects the blood's ability to carry oxygen throughout the body, leading to suffocation. To reduce the effects of nitrite toxicity, add API POND SALT to the pond. POND SALT will also add the natural electrolytes fish lose in times of stress.

DIRECTIONS FOR TESTING NITRITE

1. Fill a clean test tube with 5 ml of pond water (to the line on the tube).
2. **Add 5 drops of Nitrite Test Solution**, holding dropper bottle upside down in a completely vertical position to assure uniformity of drops.
3. **Cap the test tube and shake well for 5 seconds.** Do not hold finger over open end of tube as this may affect the test results.
4. **Wait 5 minutes for the color to develop.**
5. Determine the nitrite level by comparing the color of the solution with those on the nitrite color chart on back of booklet. The tube should be viewed against the white background in a well-lit area.

PHOSPHATE TEST

Why Test for Phosphate?

Phosphate enters the pond from fish waste and decaying organic matter, such as dead algae and uneaten fish food. Water treatment facilities may add phosphate to tap water to prevent pipe corrosion and reduce concentrations of heavy metals in drinking water. Excess phosphate may lead to algae blooms.

Testing Tips

This test kit reads the total phosphate level in parts per million (ppm).

What the Test Results Mean

Ideally, the phosphate level should be 0 in ponds. The phosphate level in a new pond will depend on the purity of the water used to fill the pond. The phosphate level in tap water can vary daily depending on the treatment process used. Phosphate tends to build up in established ponds.

Reducing Phosphate Levels

High phosphate can be a result of excess fish food, decomposing organic matter and water run-off. When high phosphate is detected steps need to be taken to understand the cause. The addition of API POND-ZYME SLUDGE DESTROYER or ECOFIX SLUDGE DESTROYER bacteria help to reduce the organic matter and the bacteria utilize phosphate as a nutrient source. Plants need phosphate to grow, so adding plants and the pruning of plants will remove phosphate from the pond. Feeding the correct type of food at the correct time of year will help to avoid the addition of phosphate from excess fish food. To immediately reduce phosphate levels a partial water change is beneficial, provided the source water is low in phosphate.

DIRECTIONS FOR TESTING PHOSPHATE

1. Fill a clean test tube with 5 ml of water to be tested (to the line on the tube).
2. Holding the bottle vertically, **add 6 drops from Phosphate Test Solution Bottle #1. Cap the test tube and shake vigorously for 5 seconds.**
3. Now, holding the bottle vertically, **add 6 drops from Phosphate Test Solution Bottle #2.** Note: Bottle #2 contains a

very thick solution and may require increased pressure to release drops.

4. **Cap and shake the test tube vigorously for 5 seconds.**
5. **Wait 3 minutes for the color to develop.**
6. Determine the phosphate level by comparing the color of the solution with those on the phosphate color chart on back of booklet. The tube should be viewed against the white background in a well-lit area.

DANGER



PHOSPHATE TEST SOLUTION #1

May be corrosive to metals • Fatal if inhaled • Causes skin burns and eye damage • Causes serious eye damage • May cause damage to organs through prolonged or repeated exposure • Do not breathe dust / fume / gas / mist / vapors / spray • Use only in outdoors or in a well-ventilated area • Wear protective gloves / protective clothes / eye protection / face protection • Keep only in original container • In case of inadequate ventilation, wear respiratory protection • If SWALLOWED: Rinse mouth • Do NOT induce vomiting • IF ON SKIN (or hair): Take off immediately all contaminated clothing • Rinse skin with water/shower • IF INHALED: Remove person to fresh air and keep comfortable for breathing • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing • Immediately call a POISON CENTER / Doctor / physician/ first aider • Specific treatment is urgent (see advice on this label) • Wash contaminated clothing before reuse • Absorb spillage to prevent material damage • Store in a well-ventilated place • Keep container tightly closed • Store locked up • Dispose of contents/container to authorized chemical landfill or if organic to high temperature incineration.