SALT WATER AQUACULTURE KIT

CODE 3635-04

NOTE: It is important to read the instruction manual before attempting to perform the tests with the short form instructions provided below.

*WARNING: Reagents marked with an * are considered to be potential health hazards. To view or print a Material Safety Data Sheet (MSDS) for these reagents go to www.lamotte.com. To obtain a printed copy, contact LaMotte by e-mail, phone or fax.

To order individual reagents or test kit components, use the specified code number.

pH

1. Fill test tube (0106) to 10 mL line with sample water.
2. Add 8 drops *Wide Range pH Indicator (2218). Cap and mix.
3. Insert Wide Range pH Octa-Slide 2 Bar (3483-01) into Octa-Slide 2 Viewer (1101). Insert test tube into Octa-Slide 2 Viewer.
4. Match color. Record as pH.

AMMONIA NITROGEN

1. Fill test tube (0106) to 5 mL line with sample water.
2. Add 10 drops Salicylate Ammonia Reagent #1 (3978WT). Cap and mix.
3. Add 7 drops of Salicylate Ammonia Reagent #2 (3979WT). Cap and mix. Wait 1 minute.
4. Add 7 drops of Salicylate Ammonia Reagent #3 (3982WT). Cap and mix. Wait 20 minutes.
5. Insert Ammonia Nitrogen Octa-Slide 2 Bar (3441-01) into the Octa-Slide 2 Viewer (1101).
6. Insert test tube into Octa-Slide 2 Viewer.
7. Match sample color to a standard. Record as ppm Ammonia Nitrogen (NH_3-N).

NITRITE NITROGEN

1. Fill test tube (0106) to 2.5 mL line with sample water.
2. Dilute to 5 mL line with *Mixed Acid Reagent (V-6278).
3. Use 0.1g spoon (0699) to add 0.1g of *Color Developing Reagent (V-6281). Cap and mix by inverting for 1 minute. Wait 5 minutes.
4. Insert Nitrite Nitrogen Octa-Slide 2 Bar (3437-01) into Octa-Slide 2 Viewer (1101). Insert test tube into Octa-Slide 2 Viewer.
5. Match sample color to color standard. Record as ppm Nitrite Nitrogen (NO_2-N).

NITRATE NITROGEN

1. Fill test tube (0692) to 2.5 mL line with sample water.
2. Attach dispenser cap (0692) to the *Mixed Acid Reagent (V-6278). Fill tube to the 5 mL line. Cap and mix. Wait 2 minutes.
3. Use 0.1g spoon (0699) to add 0.1g of *Nitrate Reducing Reagent (V-6279). Cap and invert 50 - 60 times for one minute. Wait 10 minutes.
4. Insert Nitrate Nitrogen Octa-Slide 2 Bar (3109-01) into Octa-Slide 2 Viewer (1101).
5. Cap and invert one time before inserting test tube into Octa-Slide 2 Viewer (1101).
6. Insert test tube into Octa-Slide 2 Viewer.
7. Match sample color to color standard. Record as ppm Nitrate Nitrogen (NO_3-N).

ALKALINITY

1. Fill test tube (0608) to 5 mL line with sample water.
2. Add 4 drops of *BCG-MR Indicator (2311-EG). Cap and mix. Sample will turn blue-green.
3. Fill Direct Reading Titrator (0382) with *Alkalinity Titration Reagent B (4493DR). Insert the Titrator into the center hole of the test tube cap.
4. Titrate sample until blue-green color changes to pink.
5. Record as ppm Alkalinity ($CaCO_3$).

CARBON DIOXIDE

1. Fill test tube (0608) to 20 mL line with sample water.
2. Add 2 drops *Phenolphthalein Indicator, 1% (2246). If sample turns red, no free carbon dioxide is present. If colorless, proceed to Step 3.
3. Fill Direct Reading Titrator (0380) with *Carbon Dioxide Reagent B (4253DR).
4. Titrate sample until faint pink color persists for 30 seconds.
5. Record as ppm Carbon Dioxide (CO_2).

SALINITY

1. Fill test tube (0608) to 10 mL line with Demineralized water (1151).
2. Fill the 1.0 mL Direct Reading Titrator (0376) to the 0 mark with sample water. Dispense 0.5 mL of sample water into test tube. Discard remaining sample in Titrator.
3. Add 3 drops of *Salinity Indicator Reagent A (7460) to test tube. Cap and gently swirl to mix. Sample will turn yellow.
4. Fill Direct Reading Titrator (0378) with *Salinity Titration Reagent B (7461).
5. Titrate sample until yellow color changes to pink-brown.
6. Record as ppt Salinity.

DISSOLVED OXYGEN

SAMPLING

1. Rinse sampling bottle (0688-DO). Replace cap.
2. Submerge bottle, then remove cap.
3. Tap sides of bottle to release air bubbles.
4. While bottle is submerged replace cap and retrieve from water.
5. If air bubbles are present repeat sampling method.

PRESERVATION

1. Add 8 drops of *Manganous Sulfate Solution (4167).
2. Add 8 drops of *Alkaline Potassium Iodide Azide Solution (7166). Caution. Cap and mix by inverting several times. Allow precipitate to settle below shoulder.
3. Add 8 drops of *Sulfuric Acid, 1:1 (6141WT).
4. Cap and mix until precipitate dissolves. Sample is now “fixed”.

TEST PROCEDURE

1. Fill test tube (0608) to 20 mL line with “fixed” sample. Cap.
2. Fill Direct Reading Titrator (0377) with *Sodium Thiosulfate, 0.025N (4169). Titrate sample, swirling between each addition until color is a very faint yellow.
3. Remove Titrator and cap. Add 8 drops of Starch Indicator Solution (4170WT). Sample should turn blue. Replace cap and Titrator.
4. Titrate sample until blue color just disappears.
5. Record as ppm Dissolved Oxygen (O_2).

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