**ALGAE IN WATER TEST KIT**  
**MODEL AWL • CODE 6662**

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>CONTENTS</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 60 mL</td>
<td>*Methyl Alcohol</td>
<td>*6319-H</td>
</tr>
<tr>
<td>1</td>
<td>Test Tube, 5-10-12.9-20-25 mL, glass, w/cap</td>
<td>0608</td>
</tr>
<tr>
<td>2</td>
<td>Test Tubes, 5 mL, glass</td>
<td>0230</td>
</tr>
<tr>
<td>1</td>
<td>Syringe, 60 mL</td>
<td>0943</td>
</tr>
<tr>
<td>1</td>
<td>Filter Holder, plastic</td>
<td>0598</td>
</tr>
<tr>
<td>1</td>
<td>Check Valve</td>
<td>27760-01</td>
</tr>
<tr>
<td>1</td>
<td>Filter paper, glass</td>
<td>1157</td>
</tr>
<tr>
<td>1</td>
<td>Tygon Tubing, w/adapter</td>
<td>1175</td>
</tr>
</tbody>
</table>

*WARNING: Reagents marked with a * are considered to be potential health hazards. To view or print a Material Safety Data Sheet (MSDS) for these reagents see MSDS CD or www.lamotte.com. To obtain a printed copy, contact LaMotte by email, phone or fax. To order individual reagents or test kit components, use the specified code number.

**INTRODUCTION**

This test kit uses a unique filtration procedure for determining if there is an unacceptable level of algae in water. The algae cells are filtered out of the water by means of a syringe with filter attachment. A yellow-green color on the glass fiber filter indicates algae may be present, since minerals which may also cause coloration of the water will not be trapped on the filter. The algae collected on the filter is then subjected to an alcohol extraction procedure. A yellow to green color in the extract solution indicates an unacceptable level of algae in the water.

**FILTRATION ASSEMBLY**

1. Unscrew the cover of the filter holder (0598) and install a filter paper (1157) in the holder. Position the paper carefully to avoid by-passing the filter. If a membrane filter is used, install a support pad in back of the membrane disc. Replace the cover.
2. Insert the end of the check valve (27760-01), that does not have threads and does have small tabs, into the Luer tip of the syringe (0943).

3. Insert the opposite end of the check valve with the threads into the larger opening in the filter holder.

4. Depress the syringe plunger to the 0 position. Attach the plastic tubing (1175) to the side arm of the check valve. Submerge the free end of the tubing in the sample water.

**PROCEDURE**

1. After the syringe-filter device has been prepared according to above procedure, complete one stroke of the syringe by pulling the plunger out and drawing water into the syringe through the plastic tubing. Fill the barrel to the 50 mL mark. Slowly depress the plunger to expel the water through the filter holder. Repeat at least 4 times.

   **NOTE:** When excessive pressure is exerted upon the filter disc by depressing the plunger too rapidly, there is a tendency for the filter disc to rupture. If this happens, replace filter disc and repeat sampling procedure.

2. Disconnect filter holder from the syringe. Unscrew the filter holder and carefully remove the filter disc. The presence of a green-yellow color on the filter disc indicates algae may be present.

3. Place the filter disc in the test tube (0608). Fill to 5 mL line with *Methyl Alcohol (6319). Cap and shake vigorously for approximately 2 minutes. This will extract the green chlorophyll from the algae cells and disintegrate the disc. The disintegrated disc must be filtered out of the solution.

4. Place a new filter disc in the filter holder.

5. Remove the check valve from syringe. Attach the filter holder directly to syringe.

6. Remove the plunger from the syringe and pour the contents of the test tube into the syringe barrel. Place the outlet of the filter holder into the test tube (0230), replace the plunger in the syringe, and slowly depress until all of the solution has been collected in the test tube.

7. View across the diameter of the test tube or down through the solution. A clear yellow to green color indicates algae is present.

LaMOTTE COMPANY

Helping People Solve Analytical Challenges℠

PO Box 329 • Chestertown • Maryland • 21620 • USA
800-344-3100 • 410-778-3100 (Outside U.S.A.) • Fax 410-778-6394
Visit us on the web at www.lamotte.com
2. Insert the end of the check valve (27760-01), that does not have threads and does have small tabs, into the Luer tip of the syringe (0943).

3. Insert the opposite end of the check valve with the threads into the larger opening in the filter holder.

4. Depress the syringe plunger to the 0 position. Attach the plastic tubing (1175) to the side arm of the check valve. Submerge the free end of the tubing in the sample water.

**PROCEDURE**

1. After the syringe-filter device has been prepared according to above procedure, complete one stroke of the syringe by pulling the plunger out and drawing water into the syringe through the plastic tubing. Fill the barrel to the 50 mL mark. Slowly depress the plunger to expel the water through the filter holder. Repeat at least 4 times.

   **NOTE:** When excessive pressure is exerted upon the filter disc by depressing the plunger too rapidly, there is a tendency for the filter disc to rupture. If this happens, replace filter disc and repeat sampling procedure.

2. Disconnect filter holder from the syringe. Unscrew the filter holder and carefully remove the filter disc. The presence of a green-yellow color on the filter disc indicates algae may be present.

3. Place the filter disc in the test tube (0608). Fill to 5 mL line with *Methyl Alcohol (6319). Cap and shake vigorously for approximately 2 minutes. This will extract the green chlorophyll from the algae cells and disintegrate the disc. The disintegrated disc must be filtered out of the solution.

4. Place a new filter disc in the filter holder.

5. Remove the check valve from syringe. Attach the filter holder directly to syringe.

6. Remove the plunger from the syringe and pour the contents of the test tube into the syringe barrel. Place the outlet of the filter holder into the test tube (0230), replace the plunger in the syringe, and slowly depress until all of the solution has been collected in the test tube.

7. View across the diameter of the test tube or down through the solution. A clear yellow to green color indicates algae is present.