U.S. MICRO SOLUTIONS INC.
AN ENVIRONMENTAL MICROBIOLOGY LAB

Collection & Transport Guidelines
**PA Drinking Water Compliance Samples Only**
**PA DEP Lab ID: 65-01710**

# *E.coli* & Coliforms – Modified Colitag®

**Container:** Sterile 120mL screw-top containers with sodium thiosulfate for water collection are available from U.S. Micro-Solutions, call 724-853-4047.

**Sample:** Potable water collected in a sterile 120 mL container with sodium thiosulfate. One 120 mL bottle is needed per sample.

**Method**: Modified Colitag® is approved by the U.S. EPA for compliance sample analysis as a qualitative colorimetric detection method for *E. coli* and coliforms; this method can detect a single viable coliform or *E. coli* in the presence of up to 2 million CFU/mL of heterotrophic bacteria.

**Collection:**

*Potable Water - Distribution System without attachments:*

1. Select a tap that is supplying water from a service pipe directly connected with the main, and is not, for example, served from a cistern or storage tank.
2. Open tap fully and let water run for 2 minutes or for a time sufficient to permit clearing of the service line.
3. Reduce water flow to permit filling the sample container without splashing. Fill a bottle with at least 100 mL of sample, leaving 1 inch of headspace.
4. Label the sample container with the sample number.

*Potable Water - Well fitted with a hand pump:*

1. Pump water for about 5-10 minutes or until water temperature has stabilized then fill the sample container without splashing. Fill a bottle with at least 100 mL of sample, leaving 1 inch of headspace.
2. If no pumping machinery is available, collect a sample directly from the well by means of a sterilized bottle fitted with a weight at the base. Take care to avoid contaminating samples. Fill a bottle with at least 100 mL of sample, leaving 1 inch of headspace.
3. Label the sample container with the sample number.

**Documentation:**

1. Complete the Drinking Water Chain of Custody (COC) and include with submission to the lab.

**Transport:**

1. Samples should be tested prior to 8 hours from collection and should be placed on ice, frozen gel packs, or under refrigeration to maintain a temperature of 1-10 °C (without freezing) during transit to the laboratory.
2. Samples should be packed in insulated containers to maintain proper temperatures and should be packed so they do not become immersed should the ice melt.
3. Transport samples to lab.

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# Heterotrophic Plate Count – SimPlate®

**Container:** Sterile 120mL screw-top containers with sodium thiosulfate for water collection are available from U.S. Micro-Solutions, call 724-853-4047.

**Sample:** Potable water collected in a sterile 120 mL container with sodium thiosulfate. One 120 mL bottle is needed per sample.

**Method:** SimPlate® Test Method for Heterotrophic Bacteria in Water (SM 9215E) - this method is intended for use in the detection and quantification of heterotrophic bacteria in water.

**Collection:**
*Potable Water - Distribution System without attachments:*
1. Select a tap that is supplying water from a service pipe directly connected with the main, and is not, for example, served from a cistern or storage tank.
2. Open tap fully and let water run for 2 minutes or for a time sufficient to permit clearing of the service line.
3. Reduce water flow to permit filling the sample container without splashing. Fill a bottle with at least 100 mL of sample, leaving 1 inch of headspace.
4. Label the sample container with the sample number.

*Potable Water - Well fitted with a hand pump:*
1. Pump water for about 5-10 minutes or until water temperature has stabilized then fill the sample container without splashing. Fill a bottle with at least 100 mL of sample, leaving 1 inch of headspace.
2. If no pumping machinery is available, collect a sample directly from the well by means of a sterilized bottle fitted with a weight at the base. Take care to avoid contaminating samples. Fill a bottle with at least 100 mL of sample, leaving 1 inch of headspace.
3. Label the sample container with the sample number.

**Documentation:**
1. Complete the Drinking Water Chain of Custody (COC) and include with submission to the lab.

**Transport:**
1. Samples should be tested prior to 8 hours from collection and should be placed on ice, frozen gel packs, or under refrigeration to maintain a temperature of 1-4 °C (without freezing) during transit to the laboratory.
2. Samples should be packed in insulated containers to maintain proper temperatures and should be packed so they do not become immersed should the ice melt.
3. Transport samples to lab.