

# RESIDUAL MICtreat® FPS CHEMICAL TEST (THPS TEST)



BTIproductsLLC

## A. Testing a “Blank”

1. Fill clear sample tube to 25 ml line with untreated tap water.
2. Add **2 ml** of DSP Buffer to water in clear sample tube.
  - a. *Procedure:* Use 1 ml pipette (with black-colored rubber top) to *right* of DSP Buffer. Draw up solution until it reaches 1 ml line. Expel solution into clear sample tube. Repeat one (1) time.
3. Add **2 ml** of PSSA Reagent to water in clear sample tube.
  - a. *Procedure:* Use 1 ml pipette (with black-colored rubber top) to *left* of PSSA Reagent. Draw up solution until it reaches 1 ml line. Expel solution into clear sample tube. Repeat one (1) time.
4. Add **6 drops** of Starch Indicator Solution to clear sample tube.
5. Cap clear sample tube and mix solution.
6. Fill plastic Titrator with Iodine Solution.
  - a. *Procedure:* Use graduated, plastic Titrator with green plunger. Draw up solution until it reaches “0” mark at top of Titrator.
7. *Slowly* add Iodine Solution to clear sample tube. Swirl sample tube during addition of Iodine.
8. Continue adding Iodine Solution until 1 drop results in water turning a smokey-blue color.
9. Read concentration (in ppm) of THPS directly from side of Titrator.
  - a. *Note:* Take Titrator reading where large ring on green plunger meets Titrator scale. Each line is equal to 2 ppm.
  - b. If THPS Test Kit reagents are working properly, this test should result in water turning a smokey-blue color after very little (i.e., a few drops) Iodine Solution has been added.
10. Discard water.
11. Proceed to step B-1 of these instructions.

## B. Testing Your Sample

1. Rinse clear sample tube with your water sample, collected in Section B of MICtreat® FPS Monitor Kit instructions.
2. Fill clear sample tube to 25 ml mark with your water sample.
3. Add **2 ml** of DSP Buffer to water in clear sample tube.
  - a. *Procedure:* Use 1 ml pipette (with black-colored rubber top) to *right* of DSP Buffer. Draw up solution until it reaches 1 ml line. Expel solution into clear sample tube. Repeat one (1) time.
4. Add **2 ml** of PSSA Reagent to water in clear sample tube.
  - a. *Procedure:* Use 1 ml pipette (with black-colored rubber top) to *left* of PSSA Reagent. Draw up solution until it reaches 1 ml line. Expel solution into clear sample tube. Repeat one (1) time.
5. Add **6 drops** of Starch Indicator Solution to clear sample tube.
6. Cap clear sample tube and mix solution.
7. Fill plastic Titrator with Iodine Solution.
  - a. *Procedure:* Use graduated, plastic Titrator with green plunger. Draw up solution until it reaches “0” mark at top of Titrator.
8. *Slowly* add Iodine Solution to clear sample tube. Swirl sample tube during addition of Iodine.
9. Continue adding Iodine Solution until 1 drop results in water turning a smokey-blue color.
10. Read concentration (in ppm) of THPS directly from side of Titrator.
  - a. *Note:* Take Titrator reading where large ring on green plunger meets Titrator scale. Each line is equal to 2 ppm.
  - b. Keep track of the number of full Titrators that have been used. Each full Titrator used equals 100 ppm.
  - c. If FPS water has been adequately treated to about 400 ppm MICtreat® FPS Chemical, this test should result in water turning a smokey-blue color after 3 to 5 Titrators full of Iodine Solution have been added.
11. Record THPS levels in MICtreat® FPS Monitor Kit Data Sheet.
12. Discard water.

**Note:** If this test does *not* result in your water sample turning a smokey-blue color, proceed to step C-1 of these instructions. Otherwise, stop here.

### C. Troubleshooting

1. Fill blue-capped sampling tube, provided as part of MICtreat® FPS Monitor Kit, to just below tube threads with untreated tap water.
2. Using a 1 ml syringe and needle, provided in MICtreat® FPS Monitor Kit, withdraw **0.3 ml** of MICtreat® FPS Chemical from MICtreat® FPS System tank or from MICtreat® FPS Chemical container.
  - a. *Procedure:* Withdraw chemical by gently pulling up on syringe plunger until chemical reaches third line up from bottom of syringe.
3. Expel chemical into blue-capped sampling tube by depressing syringe plunger.
4. Cap blue-capped sampling tube, and mix well.
5. Pour water in blue-capped sampling tube into clear sample tube in THPS Test Kit until water reaches 25 ml mark.
6. Follow steps 3 through 12 under Section B of these instructions.

**Note:** If THPS Test Kit reagents are working properly, this test should result in water turning a smokey-blue color after 3 to 5 Titrators full of Iodine Solution have been added. This equates to 300 to 500 ppm of MICtreat® FPS Chemical.

Should you have questions about this product or any of the products and services we provide, please call or write:

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*We welcome all comments and inquiries.*