

**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. (*For brine samples, substitute 2 ml Borate Buffer.*)
  - a. *Procedure:* Use 1 ml pipette (with black-colored rubber top) to *right* of DSP (*or Borate*) 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.
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. (*For brine samples, substitute 2 ml Borate Buffer.*)
  - a. *Procedure:* Use 1 ml pipette (with black-colored rubber top) to *right* of DSP (*or Borate*) 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. Stop when water turns a smokey-blue color.
11. Record THPS levels.
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 a 50 ml sampling tube to just below tube threads with untreated tap water.
2. Using a 1 ml syringe, graduated in 10ths, withdraw **0.3 ml** of THPS chemical.
  - 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 50 ml sampling tube by depressing syringe plunger.
4. Cap 50 ml sampling tube, and mix well.
5. Pour water in 50 ml 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 THPS chemical .

**Interferences:** Hydrogen sulfide can interfere with the determination of THPS. Pretreatment with Zinc Acetate will remove the interference. Add 5 drops of Zinc Acetate, 2N for every 100 ppm hydrogen sulfide present in a 50 ml sample. Filter off the white precipitate that forms and proceed with Step B-1.

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.*