

Chloride Titrets® Kit

K-2070: 10,000 - 100,000 ppm

Test Procedure

1. Measure 1.5 mL of your sample using the syringe provided. Dilute to the 15 mL mark with distilled water (fig. 1).
2. Add 6 drops of A-2000 Activator Solution to the sample (fig. 2). Stir to mix the contents of the cup.
3. Wait **3 minutes**
4. Gently snap the tip of the ampoule at the black snap ring (fig. 3).
NOTE: When the tip is snapped, the flexible tubing will remain in place on the tapered neck of the ampoule.
5. Lift the control bar and insert the Titret assembly into the Titrettor (fig. 4).
NOTE: The rigid sample pipe will extend approximately 1.5 inches beyond the body of the Titrettor.
6. Hold the Titrettor with the sample pipe in the sample. Press the control bar firmly, but briefly, to pull in a small amount of sample (fig. 5). The contents will turn a **PURPLE** color.
NOTE: NEVER press the control bar unless the sample pipe is in the sample.
7. With the sample pipe in the sample, press the control bar again briefly to allow another small amount of sample to be drawn into the ampoule.

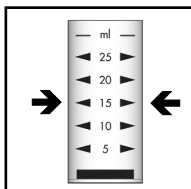


Figure 1

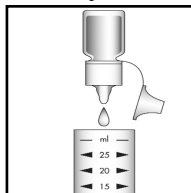


Figure 2

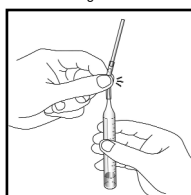


Figure 3

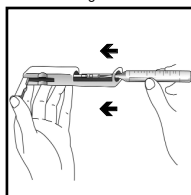


Figure 4



Figure 5

8. After each addition, rock the entire assembly to mix the contents of the ampoule. Watch for a color change from **PURPLE to COLORLESS**.

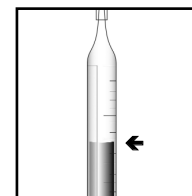


Figure 6

9. Repeat steps 7 and 8 until a permanent color change occurs.
10. When the color of the liquid in the ampoule changes to **COLORLESS**, remove the ampoule from the Titrettor. Hold the ampoule in a vertical position and read the scale opposite the liquid level (fig. 6).
11. Multiply scale units on the Titret ampoule by 10,000 for test results in ppm (mg/Liter) chloride as Cl⁻.

Test Method

The Chloride Titrets®¹ test method employs the mercuric nitrate titrimetric chemistry.^{2,3,4} In an acidic solution, mercuric nitrate reacts with chloride to form mercuric chloride. Diphenyl-carbazone, the endpoint indicator, forms a purple complex with excess mercuric ions. Results are expressed as chloride (Cl⁻).

1. Titrets is a registered trademark of CHEMetrics, Inc. U.S. Patent No. 4,332,769
2. ASTM D 512 - 04, Chloride Ion In Water, Test Method A
3. APHA Standard Methods, 21st ed., method 4500-Cl⁻ C (2005)
4. EPA Methods for Chemical Analysis of Water and Wastes, method 325.3 (1983)

Safety Information

Read MSDS before performing this test procedure. Wear safety glasses and disposable gloves.



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