

Cyanide Titrets® Kit

K-3815: 5 - 50 ppm

Test Procedure

1. Fill the sample cup to the 10 mL mark with the sample to be tested (fig. 1).
2. Add 8 drops of A-3802 Indicator Solution (fig. 2). Stir to mix the contents of the cup.
3. 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 neck of the ampoule.

4. 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.

5. 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 **ORANGE-RED**.

NOTE: NEVER press the control bar unless the sample pipe is in the sample.

6. Press the control bar again to draw another small amount of sample into the ampoule (fig. 5).
7. Rock the entire assembly to mix the contents of the ampoule. Watch for a color change from **ORANGE-RED** to **BRIGHT YELLOW**.
8. Repeat steps 6 and 7 until a permanent color change occurs.

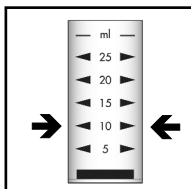


Figure 1

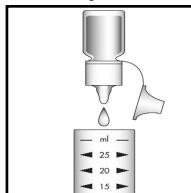


Figure 2

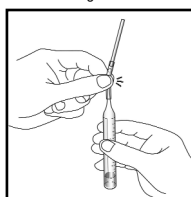


Figure 3

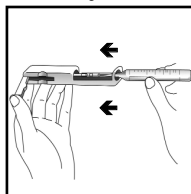


Figure 4

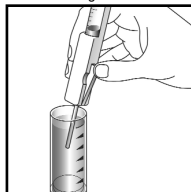


Figure 5

9. When the color of the liquid in the ampoule changes to **BRIGHT YELLOW**, remove the ampoule from the Titrettor. Hold the ampoule, **tip pointed upward**, and read the scale opposite the liquid level (fig. 6). Results are expressed in ppm (mg/Liter) cyanide (CN).

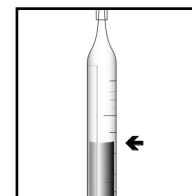


Figure 6

Interpretation of Test Results

If the contents of the ampoule do not turn **orange-red** in Step # 5, the cyanide concentration in the sample is above the test range. If the ampoule fills completely and the contents do not turn **yellow**, the cyanide concentration is below the test range.

Test Method

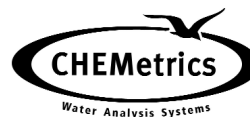
The Cyanide Titrets®¹ test method employs the silver nitrate titrimetric chemistry.² A silver sensitive indicator, 5-(p-dimethylaminobenzylidene) rhodanine, signals the endpoint. This kit measures the simple cyanide content of a sample. Simple cyanides are represented by the formula $A(CN)_x$, where A is an alkali or metal and x is the number of cyanide groups.

1. Titrets is a registered trademark of CHEMetrics, Inc. U.S. Patent No. 4,332,769
2. APHA Standard Methods, 20th ed., p. 4-38, method 4500-CN- D (1998)

Safety Information

Read MSDS (available at www.chemetrics.com) before performing this test procedure. Wear safety glasses and protective gloves.

Visit www.chemetrics.com to view product demonstration videos.
Always follow the test procedure above to perform a test.



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