

Carbon Dioxide Titrets® 100 - 1000 ppm

Test Procedure

1. Fill the sample cup to the 20 mL mark with your sample (fig. 1).

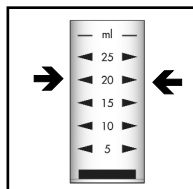


Figure 1

2. Add 2 drops of A-1900 Activator Solution to the sample (fig. 2). Stir briefly to mix the contents of the sample cup.

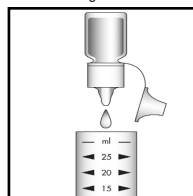


Figure 2

NOTE: If the sample turns pink, carbon dioxide is 0 ppm. There is no need to continue.

3. Gently snap the tip of the glass ampoule at the white ring nearest the end of the tapered tip (fig. 3).

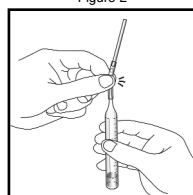


Figure 3

NOTE: When the tip is snapped, the flexible tubing will remain in place on the tapered neck of the ampoule.

4. Lift the control bar and insert the Titret assembly into the Titrettor (fig. 4).

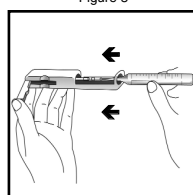


Figure 4

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 and press the control bar firmly, but briefly, to pull in a small amount of sample. The contents will turn a **PINK** color (fig. 5).

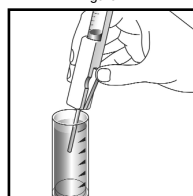


Figure 5

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

6. 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.

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

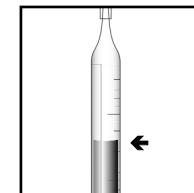


Figure 6

8. Repeat steps 6 and 7 until a permanent color change occurs.

9. 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). Results are expressed in ppm (mg/Liter) carbon dioxide as CO₂.

Test Method

The Carbon Dioxide Titrets®¹ test method employs a caustic titrant with pH indicator method.^{2,3} Results are expressed in ppm (mg/Liter) carbon dioxide as CO₂. Sulfide will not interfere up to 4 ppm. However if the sulfide concentration is >4 ppm, the following formula is used to calculate the volume of A-1910 Neutralizer solution that should be added to 20 mL of the sample prior to performing the Test Procedure:

$$\text{mL of A-1910 Solution} = \text{ppm sulfide} \div 100$$

1. Titrets is a registered trademark of CHEMetrics, Inc. U.S. Patent No. 4,332,769
2. APHA Standard Methods, 20th ed., p. 4-31, method 4500-CO₂ C (1998)
3. ASTM D 513 - 82, Total and Dissolved Carbon Dioxide In Water, Test Method E

Safety Information

Read MSDS before performing this test procedure. Wear safety glasses.

Reorder Information

Cat. No.

Test Kit, complete **K-1920**

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