Hydrogen Peroxide 2

Range(s): 0-2.00 ppm H_2O_2

Procedure

1. If the expected concentration is above 2 ppm H_2O_2, dilute the designated volume of sample water to 50 mL using DI Water (R-0833) in the dilution vial, then cap and mix thoroughly.

Note: If the expected concentration is above 20 ppm H_2O_2, use a 1 mL pipet (part #4029) to dispense the sample into the dilution vial.

Range	Sample Water Volume	Multiplication Factor
2-20 ppm H_2O_2	5 mL	10
20-100 ppm H_2O_2	1 mL	50
100-125 ppm H_2O_2	0.5 mL	100

2. Turn on the Colorimeter.
3. Select a test menu (ALL TESTS, RECENT TESTS, or FAVORITES) containing Hydrogen Peroxide 2 using ◀▶.
4. Select Hydrogen Peroxide 2 using ▲▼; then press ENTER ⊙.
5. Rinse and fill 25 mm sample cell to 10 mL mark with sample; then cap.
6. Insert sample cell into sample cell compartment. Align marks per User's Manual.
7. Select ZERO using ◀▶; then press ENTER ⊙. Zero will be displayed.
8. Remove sample cell from sample cell compartment; then remove cap.
9. Add 5 drops Hydrogen Peroxide 2 - Reagent A; then swirl to mix.
10. Add 5 drops Hydrogen Peroxide 2 - Reagent B; then swirl to mix.
11. Add 5 drops Hydrogen Peroxide 2 - Reagent C; then cap and swirl to mix thoroughly.
12. Insert sample cell into sample cell compartment. Align marks.
13. Select TIMER using ◀▶; then press ENTER ⊙.
14. Select START using ◀▶; then press ENTER ⊙. (A 5-minute [05:00] countdown will begin.) Immediately select AUTO using ◀▶; then press ENTER ⊙.
15. When the timer beeps, the instrument will read the sample and the result will be displayed. If a dilution was required, multiply the result by the designated multiplication factor.

Interferences

Oxidizers, all levels – positive interference

The following analytes were tested to the levels listed and found not to cause any interference up to the specified values:

Alkalinity, Total ($CaCO_3$) – 200 ppm
Biguanide – 50 ppm
Copper – 0.5 ppm
Cyanuric Acid – 200 ppm
Hardness, Calcium ($CaCO_3$) – 1000 ppm
Iron, Ferric – 0.5 ppm
Iron, Ferrous – 0.5 ppm

Test Method

Iodide Catalytic Oxidation

This method utilizes N,N-diethyl-p-phenylenediamine (DPD) and potassium iodide with a catalyst. Hydrogen peroxide oxidizes potassium iodide to iodine with the assistance of the catalyst. Iodine is then able to react with the DPD to produce a magenta color that is proportional to the concentration of hydrogen peroxide in a sample.

(over)

Estimated Detection Limit

0.02 ppm H_2O_2

Precision

Using a single lot of reagent and a standard solution of 1.25 ppm H_2O_2, an individual analyst obtained a standard deviation with the instrument of ± 0.03 ppm H_2O_2.

Application

Recreational Water

Ordering Info

Reagent Pack

K-8020 Hydrogen Peroxide 2

Formulated for exclusive use with Taylor's TTi® Colorimeter.

Reagent Pack Comonents

R-8020A Hydrogen Peroxide 2 - Reagent A

R-8020B Hydrogen Peroxide 2 - Reagent B

R-8020C Hydrogen Peroxide 2 - Reagent C

Optional Reagents & Accessories

R-0833 DI Water

#4029 Pipet (eye dropper), Calibrated (0.5 & 1.0 mL), plastic

taylor
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