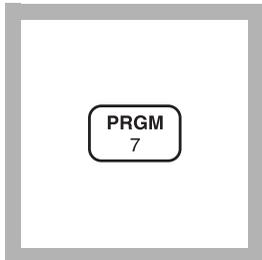


**CYANURIC ACID (7 to 55 mg/L)**

For water, pools and spas

**Turbidimetric Method**

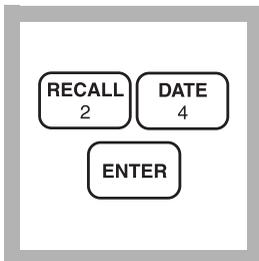
**1.** Enter the stored program number for cyanuric acid.

Press: **PRGM**

The display will show:

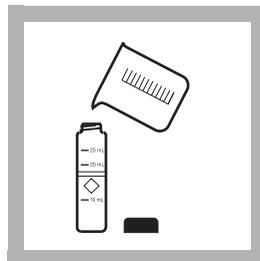
**PRGM ?**

*Note: For most accurate results, perform a Reagent Blank Correction using deionized water (see Section 1).*



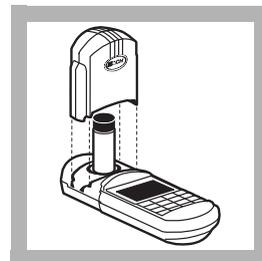
**2.** Press: **24 ENTER**

The display will show **mg/L, CYACD** and the **ZERO** icon.

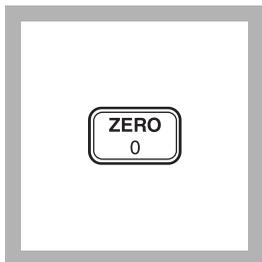


**3.** Fill a sample cell with 25 mL of sample (the blank).

*Note: Filtering is required for highly turbid samples.*



**4.** Place the blank into the cell holder. Tightly cover the sample cell with the instrument cap.



**5.** Press: **ZERO**

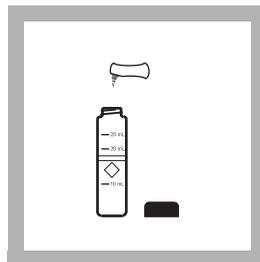
The cursor will move to the right, then the display will show:

**0 mg/L CYACD**

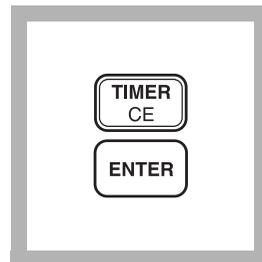
*Note: If Reagent Blank Correction is on, the display may flash "limit". See Section 1.*



**6.** Fill another cell with 25 mL of sample.



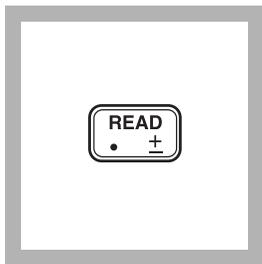
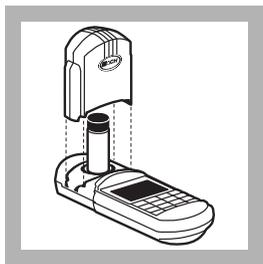
**7.** Add the contents of one Cyanuric Acid 2 Reagent Powder Pillow (the prepared sample). Swirl to mix.



**8.** Press **TIMER ENTER**  
A three-minute reaction period will begin.

*Note: A white turbidity will form if cyanuric acid is present.*

*Note: Accuracy is not affected by undissolved powder.*



**9.** Place the prepared sample into the cell holder. Tightly cover the sample cell with the instrument cap.

**10.** Press: **READ**

The cursor will move to the right, then the result in mg/L cyanuric acid will be displayed.

*Note: Standard Adjust may be performed using a prepared standard (see Section 1).*

*Note: Clean sample cells with soap, water and a brush soon after each test to prevent a white film from forming.*

---

### Sampling and Storage

Collect samples in clean plastic or glass bottles. Samples must be analyzed within 24 hours.

### Accuracy Check

#### Standard Solution Method

- a) Dissolve 1.000 gram of cyanuric acid in 1000 mL of deionized water to make a 1000 mg/L solution. It takes several hours for the cyanuric acid to dissolve. This solution is stable for several weeks.
- b) Dilute 2.00 mL of the 1000 mg/L solution to 100 mL with deionized water to make a 20 mg/L solution. Prepare fresh daily.
- c) Testing the 20 mg/L solution should give test results of about 20 mg/L cyanuric acid.

### Method Performance

#### Precision

In a single laboratory, using a standard solution of 25.0 mg/L cyanuric acid and two lots of reagent with the instrument, a single

# CYANURIC ACID, continued

---

operator obtained a standard deviation of  $\pm 1.2$  mg/L cyanuric acid.

## Estimated Detection Limit

The estimated detection limit for program 24 is 7.0 mg/L cyanuric acid. For more information on the estimated detection limit, see *Section 1*.

## Interferences

Turbidity will interfere. Filter turbid samples before running the test.

## Summary of Method

The test for cyanuric acid uses the turbidimetric method. Cyanuric Acid 2 Reagent precipitates any cyanuric acid present and holds it in suspension. The amount of turbidity caused by the suspended particles is directly proportional to the amount of cyanuric acid present. Due to the nature of the precipitation reaction, low levels of cyanuric acid (less than 7 mg/L) are not detected by this method.

---

## REQUIRED REAGENTS AND APPARATUS

Description	Quantity Required		Unit	Cat. No.
	Per Test			
Cyanuric Acid 2 Reagent Powder Pillow.....	1 pillow.....	50/pkg.....	2460-66	
Sample Cell, 10-20-25 mL, w/cap .....	2 .....	6/pkg.....	24019-06	

## OPTIONAL REAGENTS

Cyanuric Acid .....	25 g .....	7129-24
Water, deionized .....	4 L .....	272-56

## OPTIONAL APPARATUS

Balance, Acculab UI Series.....	each .....	26947-00
Filter Paper, folded 12.5 cm .....	100/pkg .....	1894-57
Flask, volumetric, Class A, 100 mL.....	each .....	14574-42
Flask, volumetric, Class A, 1000 mL.....	each .....	14574-53
Funnel, poly, 65 mm.....	each .....	1083-67
Pipet, Bulb.....	each .....	14651-00
Pipet, volumetric, Class A, 2.00 mL .....	each .....	14515-36

## For Technical Assistance, Price and Ordering

In the U.S.A.—Call 800-227-4224

Outside the U.S.A.—Contact the Hach office or distributor serving you.