



Yalitech Instruments

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QUANTITY	CONTENTS	CODE
5 g	DPD #1 Powder	6807-C
50	Chlorine DPD #3R Tablets	6905A-H
60 mL	Chlorine/Bromine Titrant	3992DR-H
1	Test Tube, 10 & 22.5 mL, w/cap	0753
1	Direct Reading Titrator, 0-10 Range	0377
1	Spoon, 0.1 g, plastic	0699
1	Pipet, 1.0 mL, plastic	0354

*WARNING: Reagents marked with an * are considered to be potential health hazards. To view or print a Safety Data Sheet (SDS) for these reagents go to www.lamotte.com. Search for the four digit reagent code number listed on the reagent label, in the contents list or in the test procedures. Omit any letter that follows or precedes the four digit code number. For example, if the code is 4450WT-H, search 4450. To obtain a printed copy, contact LaMotte by email, phone or fax.

Emergency information for all LaMotte reagents is available from Chem-Tel (US, 1-800-255-3924) (International, call collect, 813-248-0585).

To order individual reagents or test kit components, use the specified code number.

Warning! This set contains chemicals that may be harmful if misused. Read cautions on individual containers carefully. Not to be used by children except under adult supervision.

PROCEDURE

BROMINE [0 - 10 ppm]

1. Fill the test tube (0753) to the 22.5 mL line with sample water.
2. Use the 0.1 g spoon (0699) to add 0.1 g of DPD #1 Powder (6807). Cap and gently swirl until powder dissolves. Solution will turn red if bromine is present.
3. Fill the Direct Reading Titrator (0377) with the Chlorine/Bromine Titrant (3992). Insert the Titrator tip into the center hole of the test tube cap.
4. While gently swirling the tube, slowly press plunger to titrate until red color completely disappears.
5. Read the test result directly from the scale where the large ring on the Titrator meets the Titrator barrel. Record as ppm Bromine.

CHLORINE [0 - 10 ppm]

1. Fill the test tube (0753) to the 10 mL line with sample water.
2. Use the 0.1 g spoon (0699) to add 0.1 g of DPD #1 Powder (6807). Cap and gently swirl until powder dissolves. Solution will turn red if chlorine is present.
3. Fill the Direct Reading Titrator (0377) with the Chlorine/Bromine Titrant (3992). Insert the Titrator tip into the center hole of the test tube cap.
4. While gently swirling tube, slowly press the plunger to titrate until the red color completely disappears.
5. Read the test result directly from the scale where the large ring on the Titrator meets the Titrator barrel. Record as ppm Free Available Chlorine. Do not move the plunger if total chlorine is to be determined.
6. Carefully remove the cap and Titrator. Add one Chlorine DPD #3R Tablet (6905A). Cap and swirl until tablet disintegrates. The reappearance of a red color indicates combined chlorine.
7. Continue titration until the red color again disappears.
8. Read the test result directly from the scale where the large ring on the Titrator meets the Titrator barrel. Record as ppm Total Chlorine.

$$\text{ppm Combined Chlorine} = \text{ppm Total Chlorine} - \text{ppm Free Chlorine}$$

CHLORINE [0 - 100 ppm]

1. Use the 1.0 mL pipet (0354) to add 1.0 mL of sample water to the test tube (0753).
2. Fill the test tube to the 10 mL line with tap or deionized water. Swirl to mix.
3. Follow Steps 2 - 5 of the Chlorine procedure above. Multiply the titrator reading from Step 5 by 10 to determine ppm Free Available Chlorine.
4. Follow Steps 6 - 8 of the Chlorine procedure above. Multiply the titrator reading from Step 8 by 10 to determine ppm Total Chlorine.

$$\text{ppm Combined Chlorine} = \text{ppm Total Chlorine} - \text{ppm Free Chlorine}$$

NOTE: This method may be used to test chlorine concentrations greater than 100 ppm by refilling the titrator and adding an additional 0.1 g spoon of DPD #1 Powder (6807) for every additional 100 ppm chlorine present in the sample water.

LaMOTTE COMPANY

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