PHOSPHONATE KIT

DIRECT READING TITRATOR

CODE 7530-DR-01

QUANTITY	CONTENTS	CODE
15 mL	*Hydrochloric Acid, 1.0N	*6130-E
15 mL	*Fluoride Inhibitor	*3929-E
15 mL	Sodium Thiosulfate, 0.1N	6155-E
10 g	Xylenol Orange Powder	6165-D
60 mL	Thorium Nitrate Solution	6158PS-H
1	Test Tube, 5-10-15 mL, w/cap	0778
1	Dispenser Cap	0601
1	Spoon, 0.1 g	0699
1	Direct Reading Titrator, 0-20 Range	0378
1	pH paper, 1.3-4.4	2958

*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.

Carefully read the instruction manual for the Direct Reading Titrator before performing the titration procedure described below. The Titrator is calibrated in terms of parts per million Phosphonate, and each minor division on the Titrator scale equals 0.4 ppm.

NOTE: This test has been calibrated for Dequest 2006. When a different compound is to be tested, the amount of Thorium Nitrate added should be multiplied by a conversion factors below to determine ppm Phosphonate. If any other phosphonate compound is used, the factor must be determined experimentally using standard solutions of that compound.

Phosphonate	Compound Name	Factor
Dequest 2000	AMP(NTP)	0.8
Dequest 2006	NaAMP	1.0
Dequest 2010	HEDP(A)	0.6
Belcor 575		0.5

PROCEDURE

For most accurate results, a blank test should be run on a sample of the water containing no phosphonate. Any result from this blank test should be subtracted from the result recorded in Step 6.

1. Fill the test tube (0778) to the 10 mL line with sample water.
2. Add one drop of Sodium Thiosulfate (6155) and 5 drops of *Fluoride Inhibitor (3929).
3. Use the 0.1 g measuring spoon (0699) to add one level measure of Xylenol Orange (6165). Swirl to dissolve.
4. Best results are obtained in the pH range 2.5-3.0. This adjustment is made by adding *Hydrochloric Acid (6130) drop by drop to the sample and using the pH paper (2958) to test the solution. After each addition of *Hydrochloric Acid (6130) dip a strip of pH paper, torn from the roll, into the test solution for 5 seconds. Compare the resulting color with the color standards on the side of the pH paper container. Add *Hydrochloric Acid (6130) until the color of the pH paper matches the pH 2.8 color standard. The sample will be yellow.
5. Replace the regular cap on the bottle of Thorium Nitrate (6158PS) with the dispenser cap (0601). Fill the Direct Reading Titrator (0378) with this reagent. Insert the Titrator into the center hole of the titration tube cap.
   NOTE: Replace the regular cap on the Thorium Nitrate bottle for storage.
6. While gently swirling the titration tube, slowly press the plunger to titrate until the solution changes from yellow to pink. Read the test result directly from the scale where the large ring on the Titrator meets the Titrator barrel. Record the result in ppm phosphonate.

LaMOTTE COMPANY
Helping People Solve Analytical Challenges
PO Box 329 · Chestertown · Maryland · 21620 · USA
800-344-3100 · 410-778-3100 (Outside U.S.A.) · Fax 410-778-6394
Visit us on the web at www.lamotte.com
67530-DR-01 11/19