QUAT KIT

Code 7057-01 | Drop Count, 1 Drop = 2, 5, 10 ppm

QUANTITY	CONTENTS	CODE
15 mL	*Phenolphthalein Indicator, 0.5%	*2258-E
15 mL	*Sulfuric Acid, 0.5 N	*6090-E
60 mL	Quat Titrating Solution	3996-H
30 mL	Toluidine Blue O Indicator	3995-G
60 mL	*EDTA Solution	*7117-H
1	Test Tube, 5-10-15-20-25-30 mL, plastic, w/cap	0715
1	Quat/Polyquat Endpoint Color Chart	3613-CC

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

*Reagent is a potential health hazard. **READ SDS:** lamotte.com

Emergency information:
Chem-Tel USA 1-800-255-3924
Int'l, call collect, 813-248-0585

PROCEDURE

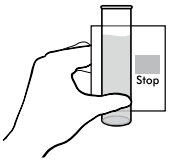
1. Rinse test tube (0715) with sample water. Fill with desired sample size selected from the table.

Sample Size	Equivalence (ppm Per Drop)
25 mL	1 drop = 2 ppm
10 mL	1 drop = 5 ppm
5 mL	1 drop = 10 ppm

2. Add 5 drops *EDTA Solution (7117). Swirl to mix. NOTE: If the hardness of the sample is greater than 500 ppm, add 5 more drops of EDTA Solution.
3. Add 2 drops of *Phenolphthalein Indicator, 0.5% (2258). Swirl to mix. If colorless, proceed to Step 4. If pink, add *Sulfuric Acid, 0.5N (6090) dropwise, until the pink color disappears.
4. Add Toluidine Blue O Indicator (3995) as follows:

   25 mL sample add 8 drops
   10 mL sample add 3 drops
   5 mL sample add 2 drops

   Swirl to mix. Sample should turn light blue.
5. While swirling test tube, add Quat Titrating Solution (3996) one drop at a time, until color changes from blue to purple. Hold bottle vertically. For best results, when the color change is first detected, use the Endpoint Color Chart (3613-CC) as shown to match the color of the solution exactly to the endpoint. Continue adding Quat Titrating solution one drop at a time until color matches endpoint. Count the number of drops added.



6. Calculate result in ppm.

25 mL sample: subtract three (3) from number of drops used in Step 5. Multiply by 2.

10 mL sample: subtract one (1) from number drops used in Step 5. Multiply by 5.

5 mL sample: subtract one (1) from number drops used in step 5. Multiply by 10.

Record as ppm Quat.

NOTE: The quat equivalence is based on n-alkyldimethylbenzyl ammonium chloride, molecular weight 360. If a quat of different molecular weight is tested, multiply the equivalence by:

$$\textbf{equivalence} \times \frac{\textbf{molecular weight}}{\textbf{360}}$$

LAMOTTE COMPANY | 802 Washington Avenue | Chestertown, Maryland | 21620 USA
800.344.3100 | +1 410.778.3100 (Outside USA) | Fax 410.778.6394 | lamotte.com