

Method

QACs are known for their bactericidal and disinfecting qualities. They are used extensively throughout the healthcare and food processing industries to sanitize, deodorize, and disinfect surfaces and equipment. QACs are also routinely formulated with various water treatments to inhibit algal growth in cooling towers, humidifiers, and swimming pools.

The Polyvinyl Sulfate Method

References: Wang, L. K., Shuster, W. W., "Polyelectrolyte Determination at Low Concentration," *Ind. Eng. Chem., Prod. Res. Dev.*, Vol. 14, No. 4, 1975, pp. 312-314. Parazak, D. P., Burkhardt, C. W., McCarthy, K. J., "Determination of Low Levels of Cationic Polyelectrolytes in Water," *Analytical Chemistry*, Vol. 59, No. 10, May 15, 1987, pp. 1444-1445.

These tests are applicable to the monitoring of QACs in cleaning solutions and cooling waters. CHEMetrics employs a titrimetric chemistry in which stabilized polyvinyl sulfate is the titrant and toluidene blue is the end point indicator.

A color change from pink to blue signals the end of the titration. Results are expressed as ppm (mg/L) QAC.

Visual Kits

Range: 100-1000 ppm
MDL: 100 ppm / Method: Polyvinyl Sulfate

	Cat#
Titrets Kit , Shelf-life 18 months	K-8810
Increments: 100, 110, 120, 130, 140, 150, 160, 180, 200, 250, 300, 350, 400, 500 700, 1000 ppm	

Kit comes in a cardboard box and contains everything needed to perform 30 tests: thirty ampoules with valve assemblies, titrettor, 25 mL sample cup and instructions.

Range: 2000-20,000 ppm
MDL: 2000 ppm / Method: Polyvinyl Sulfate

	Cat#
Titrets Kit , Shelf-life 18 months	K-8820
Increments: 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3600, 4000, 5000, 6000, 7000, 8000, 10,000, 14,000, 20,000 ppm	

Kit comes in a cardboard box and contains everything needed to perform 30 tests (except distilled water): thirty ampoules with valve assemblies, titrettor, 25 mL sample cup, 1.0 mL syringe and instructions.

Kit Components common to QACs

Description	Cat#
Sample Cup Pack, 25 mL (6 ea)	A-0013
Syringe Pack, 1.0 mL (6 ea)	A-0027
Titrettor Pack (1 ea)	A-0053

Instructions and MSDS(s) are posted on our website.

If no shelf-life is listed for a product, then the shelf-life is at least 2 years.

