

# Thermo Scientific Orion pH Electrode Cleaning Solutions

Thermo Scientific Orion pH electrode cleaning solutions are designed to simplify pH electrode maintenance. Bottles of the ready-to-use cleaning solutions are provided along with a small beaker to hold the cleaning solution and a plastic pipette for removing the electrode internal filling solutions.

The cleaning solutions are identified by the letters A, B, C, and D. Each letter designates a unique formulation that gently removes dirt and deposits from the electrode without causing damage to the electrode. Cleaning a dirty or clogged electrode restores proper electrode performance and prolongs the useful life of the electrode. The cleaning solution kit, Cat. No. 900020, features one bottle of each cleaning solution for operators who are working with a variety of sample matrices.

Optimal cleaning procedures are dependent upon the sample type, extent of buildup or clogging and the type of electrode. The following general instructions offer a starting point for developing an effective cleaning protocol.

**NOTE:** Please read MSDS sheets and bottle labels for safety information prior to use. Follow all handling instructions.

## Cleaning Instructions

1. Choose the appropriate cleaning solution. Cleaning solution D is a mild cleaner. If a stronger cleaning solution is required, use cleaning solution C. Cleaning solution A is for removing protein deposits and cleaning solution B is for removing bacterial contaminants.
2. Shake the cleaning solution. Pour enough of the cleaning solution into the beaker to cover the electrode junction and immerse the section of the electrode that requires cleaning.
3. Soak the electrode for a few minutes in the cleaning solution while moderately stirring the solution. Non-glass electrodes and electrodes with wick and fiber junctions may require more cleaning time.
4. Remove the electrode from the cleaning solution and rinse the electrode thoroughly with distilled water to remove all traces of the cleaning solution.
5. If cleaning a refillable electrode, remove the filling solution from the electrode using the pipette that is included in the kit. Add fresh filling solution to the electrode. Repeat removing and adding filling solution two or three times for optimal electrode performance.
6. If cleaning a Sure-Flow electrode, flush a few drops of filling solution through the electrode junction by pressing down on the electrode cap. Ensure that the junction flushes and resets properly.
7. Rinse the electrode thoroughly with distilled water and measure samples as usual. If the electrode response is slow or the electrode does not calibrate correctly, repeat the cleaning procedure. Viscous samples and samples that contain solid materials often require additional cleaning and additional filling solution changes.

**NOTE:** *The presence of particulates in cleaning solution A and D will not influence the effectiveness of the solutions.*

## Ordering Information

Cat. No.	Description
900020	pH electrode cleaning solution kit, includes 1 x 30 mL bottle each of cleaning solution A and C, 1 x 60 mL bottle each of cleaning solution B and D, beaker and pipette
900021	pH electrode cleaning solution A, for removing protein contaminants, includes 4 x 30 mL bottles, beaker and pipette
900022	pH electrode cleaning solution B, for removing bacterial contaminants, includes 4 x 60 mL bottles, beaker and pipette
900023	pH electrode cleaning solution C, for general cleaning, includes 4 x 30 mL bottles, beaker and pipette
900024	pH electrode cleaning solution D, for removing oil and grease contaminants, includes 4 x 60 mL bottles, beaker and pipette

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