

PH Standard Buffer Solution (pH 4.0)

Cat #: A-CSH441

Size: 100mL

Storage: 2-8°C (12 months)

Product Description

The pH value of the pH Standard Buffer Solution is known and meets the specified accuracy. It exhibits good reproducibility and stability in pH values, with a large buffering capacity, low dilution value, and small temperature coefficient. This pH Standard Buffer Solution is commonly used for the positioning and slope calibration of pH meters, with an accuracy range of ± 0.01 pH. The pH Standard Buffer Solution (pH=4.0) specifically refers to a pH value of 4.0 at 25°C.

Usage

1. Clean the pH electrode in distilled water and shake it dry.
2. Use a thermometer to measure the temperature of the pH Standard Buffer Solution and adjust the temperature value on the pH meter accurately. Automatic temperature-compensating pH meters do not require this step.
3. Position calibration: Immerse the pH electrode in the pH Standard Buffer Solution (pH=6.86), gently stir, and then let it sit still. Once the measurement value stabilizes, press the calibration button or refer to the instrument's instructions for calibration. The display will generally show a flashing 6.86 before showing the pH calibration value, indicating the completion of pH 6.86 calibration.
4. Slope calibration I: Remove the pH electrode, clean it with distilled water, and shake it dry. Immerse the pH electrode in the pH Standard Buffer Solution (pH=4.0), gently stir, and then let it sit still. Once the measurement value stabilizes, press the calibration button or refer to the instrument's instructions for calibration. The display will generally show a flashing 4.0 before showing the pH calibration value, indicating the completion of pH 4.0 calibration. After calibration, the display will automatically show the electrode's slope percentage in this linear range (e.g., displaying 99%).
5. Slope calibration II: Remove the pH electrode, clean it with distilled water, and shake it dry. Immerse the pH electrode

in the pH Standard Buffer Solution (pH=9.18), gently stir, and then let it sit still. Once the measurement value stabilizes, press the calibration button or refer to the instrument's instructions for calibration. The display will generally show a flashing 9.18 before showing the pH calibration value, indicating the completion of pH 9.18 calibration. After calibration, the display will automatically show the electrode's slope percentage in this linear range (e.g., displaying 98%)..

Notes

1. If the amount used each time is small, it can be appropriately divided and used, especially for pH Standard Buffer Solution (pH=9.18), which is more prone to degradation.
2. When displaying pH calibration values, the pH value may vary with different temperatures. For example, during the position calibration, it shows 6.86 at 25°C and 6.90 at 15°C.
3. According to the principle of pH isothermal measurement, the closer the temperature of the measured solution is to the temperature of the calibration solution, the higher the accuracy of the measurement.
4. For most tests, a two-point calibration can be used. If the measurement range is only in the acidic range (pH<7.0), you can choose pH 6.86 and pH 4.0 for calibration. If the measurement range is only in the alkaline range (pH>7.0), you can choose pH 6.86 and pH 9.18 for calibration. If the measurement range is wide or the pH electrode is aging, a three-point calibration should be performed.
5. For your safety and health, please wear lab coat and disposable gloves when operating.

Disclaimer

For your safety and health, please wear lab attire and disposable gloves while handling.