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Buffer Reference Solution How-to Use

All pH meters are not the same. This will serve as a general how to calibrate using Biopharm Buffer Reference Solution. If your pH meter recommends you start in a different order that is okay. Follow the same general guidelines with the order suggested by your pH meter manufacturer.

pH is affected by temperature. It is important to refer to the pH versus temperature chart to determine the pH of your solution. If possible, adjust your samples to 77 $^{\circ}$ F (25 $^{\circ}$ C) for the most accurate reading and ease of use.

- 1) It's important that your pH electrode sensor remain stored in Electrode Storage Solution when not in use. If you haven't stored it this way, place it in electrode storage solution, enough to cover the sensor end and allow this to sit for several hours or overnight. If you keep it in electrode storage regularly, go on to the next step.
- 2) Place enough buffer in small containers to cover the sensor of your pH meter.
- 3) Rinse the sensor of your pH meter well with deionized or distilled water.
- 4) Place your freshly rinsed pH meter sensor into fresh buffer pH 7.0 that you just poured out.
- 5) Allow this to sit in the solution until the reading becomes stable. Adjust your pH meter to pH 7.0 if necessary
- 6) Rinse the sensor end thoroughly with deionized or distilled water again
- 7) Place it into the freshly poured sample of buffer reference pH 4.0 or pH 10.0, whichever is closest to your unknown sample expected pH
- 8) Allow this to sit until the reading is stable. Adjust the slope of your pH meter if necessary. Some inexpensive pocket pH meters may not have a pH slope adjustment. In such cases, your pH meter may not be designed for high resolution.
- 9) Rinse the sensor end thoroughly with distilled or deionized water.

You are now calibrated and ready to analyze your unknown samples.