

***Q: How do I store my MANTECH electrodes?*****A:****pH electrodes:**

Do not allow the junction of the electrode to dry out between measurements. For best results, always keep the pH bulb wet. MANTECH recommends storing pH and other electrodes immersed in a 1:10 dilution of pH 4 buffer in Tap Water (1 part pH 4, 9 parts Tap). When taking the electrode out of service for an extended period, rinse the electrode thoroughly, and refit the soaker bottle or storage boot filled with buffer. Ensure there is enough storage solution in the bottle or boot to keep the junction wet.

**Conductivity:**

Conductivity probes may be stored in several ways. When not in use they can be kept dry. Alternatively, at the end of each day, they can be rinsed in DI Water and soaked in filling solution overnight. Once a week leave in 0.1 Molar HCL (Pepsin if used in proteins) overnight. Some configurations of the conductivity probe may also be stored in a 1:10 dilution of pH 4 buffer : Tap water.

**ORP:**

When not in use, the ORP element may be stored in air or distilled water, but water is more preferable to keep the reference junction wet. The protective boot filled with buffer will provide an ideal storage chamber for long periods. If left in air for an extended period of time, remove salt crystals on the outside of the reference junction by rinsing with distilled water and store wet.

**Chloride:**

The chloride electrode may be stored for short periods of time in  $1.0 \times 10^{-2}$  M chloride solution. For longer storage (longer than 2 weeks), rinse and dry the sensing pellet and cover the membrane tip with the protective cap shipped with the electrode. The reference portion of the combination electrode should be drained of filling solution, if refillable, and the rubber insert placed over the filling hole.

**Calcium:**

The calcium electrodes may be stored for short periods of time in  $1.0 \times 10^{-2}$  M calcium standard. For longer storage (longer than two weeks), rinse and dry the calcium membrane and cover the tip with any protective cap shipped with the electrodes. The reference portion of the combination electrode (or the outer chamber of the reference electrode) should be drained of filling solution, if refillable, and the rubber insert placed over the filling hole.

**Nitrate:**

The nitrate electrodes may be stored for short periods of time in  $1.0 \times 10^{-2}$  M nitrate solution. For longer storage (longer than two weeks), rinse and dry the nitrate membrane and cover the tip with any protective cap shipped with the electrodes. The reference portion of the combination electrode (or the outer chamber of the reference electrode) should be drained of filling solution, if refillable and the rubber insert placed over the filling hole.

**Silver sulphide:**

The MANTECH Silver/Sulfide Electrodes may be stored for short periods of time in  $1.0 \times 10^{-2}$  M silver (or sulfide) solution. For longer storage (longer than two weeks), rinse and dry the sensing pellet and cover the membrane tip with any protective cap shipped with the electrode. The reference portion of the combination electrode (or the outer chamber of the reference electrode) should be drained of filling solution, if refillable, and the rubber insert placed over the filling hole.

**Fluoride electrodes:**

Storing the fluoride electrode in a weak fluoride standard will keep it conditioned and maximize its lifespan. The fluoride electrode may be stored for short periods of time in  $1.0 \times 10^{-2}$  M fluoride solution with TISAB added. For longer storage (longer than two weeks), rinse and dry the sensing pellet and cover the membrane tip with any protective cap shipped with the electrode. The reference portion of the combination electrode (or the outer chamber of the reference electrode) should be drained of filling solution, if refillable, and the rubber insert placed over the filling hole. The fluoride electrode should never be stored in distilled water.

**Ammonium:**

Between runs, MANTECH Ammonium Ion Electrodes can be stored in a mix of 1 ppm ammonium chloride solution with 0.02 N  $H_2SO_4$  1:1. The MANTECH Ammonium Ion Electrodes may be stored in  $1.0 \times 10^{-2}$  M ammonium standard for short periods of time (e.g. overnight storage). For storage over 3 weeks, rinse and dry the ammonium membrane electrode and cover the tip with any protective cap shipped with the electrode(s). The reference portion of the combination electrode (or the outer chamber of the reference electrode) should be drained of filling solution, if refillable, and the rubber insert placed over the filling hole.