# LIGNIN pH Electrode

## QUICK PREP

### Fill with $KNO_3$

- Slide cover-sleeve down to expose fill-hole
- Fill chamber with 10% $KNO_3$ or 3M KCl* solution
- Press and release cap to allow junction to fill with solution
- Top off chamber if necessary

### Soak overnight in pH 4.01 buffer solution

### Drain and refill with $KNO_3$ or KCl*

### Rinse

## OPERATION

### Calibration

- Perform a two-point calibration with fresh buffer solutions

### Use

- Rinse with de-ionized or distilled water between measurements
- Press cap to flush reference junction with filling solution after problem samples (and refill reservoir if empty)

### Storage

- Soak in pH electrode storage solution or 4.01 buffer solution

*3M KCl solution = 225 g KCl per 1 L $H_2O$


# MAINTENANCE

## Disassembly

Unscrew cap and remove black retaining ring
Unscrew cap-body and slide it (along with the spring) back from the main assembly
Push the internal element out of the body to expose the tapered reference junction

## Cleaning

Wash the junction with dish-soap and warm tap water (do not use solvents)
Rinse with de-ionized or distilled water

## Assembly

Gently pull cable to re-seat the junction inside the electrode body
Replace the spring and cap-body and re-thread the cap-body for a snug but not over-tightened fit
Replace the black retaining ring and route the cable through its groove
Screw on the cap

## Long-Term Storage

Drain reservoir
Flush with de-ionized or distilled water
Ensure reservoir and junction are dry and cover electrode with protective guard