

pH Measurement Checklist

Check these for elements for proper pH measurements: meter, electrode, buffer, and sample.



pH Meter

- Confirm the meter settings are correct.

TIP: Always remember to reference your manual

- Confirm that your temperature sensor is connected (if required).
- Check that the batteries & power cord are in good working order.
- Check that the electrode connection is secure.
- Calibrate frequently to at least 2 points with fresh buffers.

– Replace if the meter does not turn on or shows signs of severe wear.

Electrode

- Inspect your electrode cord and connection for damage.
- Check that the meter connection is secure.
- Inspect the pH bulb for scratches.
- Confirm the pH bulb isn't broken.
- Use [cleaning solution](#) to ensure electrode bulb & junction are clean.
- Use storage solution to ensure the electrode is hydrated.

TIP: Place in [storage solution](#) at least 1 hour or overnight to fully hydrate

- Use the [correct electrode type](#) for sample being tested.
- Replace if electrode wont stabilize, calibrate or is broken or scratched.

pH Buffers

- Stir buffer with magnetic stirrer or probe.
- Confirm you are using the correct [pH calibration buffer](#).

TIP: You should “bracket” your expected result e.g. If the expected result = pH 5 Use buffers [pH 4.01](#) and [pH 7.01](#).

- Inspect your buffers for visible contamination.
 - Use fresh buffer for calibration.
 - Confirm buffer is not expired or bottle has not been opened for more than 4-8 weeks; or 1-2 weeks for buffer > pH 7.
- Replace buffers if contamination is present, they are expired or have been opened for too long.

Sample

- Stir sample with [magnetic stirrer](#) or probe.
- Confirm you have enough sample to cover the electrode bulb and junction.
- Confirm the temperature of your sample will not damage electrode.
- Sample is appropriate for probe type
- Sample is fresh and representative of the process/product.