

My pH sensor has mould in the storage solution

Mould growth normally appears as small blackish or greyish specks in the electrode storage solution, and it can also stick to the walls of the bottle and the sensor tip. It does not affect the accuracy or the response of the sensor, but it should be cleaned up.

To prevent mould growth, it is a good idea to replace the pH electrode storage solution with fresh solution once during the school year (between 1st and 2nd semester is a good time), and one more time before storing the sensors for the summer.

1. Cleaning the bottle:

- Rinse the bottle and its cap with warm soapy dish detergent, followed by a brief (2-3 minutes) soak of 1-2 drops of grocery store bleach and a few mL of distilled water in the bottle to kill any remaining mould.
- If you have persistent mould growth in the storage solution bottles, the pH storage bottle and lid can be cleaned with straight household bleach as long as it gets a thorough rinsing afterwards to remove any traces of remaining bleach.

2. Cleaning the electrode membrane:

- Rinse the pH electrode in warm, soapy dish detergent followed by a rinse with distilled water to flush out the mould that may have collected up under the protective fins at the tip of the sensor.
- If mould is sticking to the prongs and pH electrode bulb and warm, soapy detergent does not remove it, we recommend up to 5 minute exposure to a 10% bleach solution and some moderately vigorous agitation.
- Afterwards, it is very important to rinse it with warm tap water to remove any remaining bleach. A 5-10 minute soak in tap water might also be useful if convenient.

3. Replace the storage solution:

Storage solution recipe

- Prepare a pH 4 buffer
- Add 10 grams of solid KCl dissolved in 100 mL of pH 4 buffer. Any pH 4 buffer works, but use only KCl for the salt - other salts do not work.
- Note this solution does not contain mould inhibitor and should only be used until the mould inhibitor version is obtained. **Order code: PH-SS**