

SALT BRIDGE Ag/AgCl REF – ASSEMBLING & STORAGE

This document is not a replacement of the user manual; please consult the user manual and instruction movies for detailed information:

- <https://antescientific.com/support/documents-and-downloads/user-manuals>
- <https://antescientific.com/support/cell-and-reactor-videos/synthesiscell-instructions>

The salt bridge Ag/AgCl (SB) reference electrode is recommended for aqueous solutions. The Salt bridge Ag/AgCl REF is shipped dry and needs to be filled with KCl solution prior to use. At high modifier percentages, the REF must be filled with lithium chloride to prevent precipitation and clogging of the frit.



Use proper eye and skin protection when working with solvents.

Assembling the salt bridge Ag/AgCl REF

1. Prepare/use a saturated KCl solution (Antec, p/n 250.2052).
2. Take the SB reference electrode and remove the protecting blue cap.
3. Remove the silver rod, coated with solid AgCl from the glass tube.
4. Pipette 0.5 mL of the saturated KCl solution into the glass tube. Ensure that
5. no air bubbles are trapped inside or close to the glass frit.
6. Add some KCl salt crystals into the glass tube.
7. Insert the silver rod back in the tube.
8. From this moment onwards the REF must be kept wet at all times.



Storage of the salt bridge Ag/AgCl

The porous glass junction should not be left to dry out! Always store the SB electrode according manufacturer instruction. **The frit in the salt bridge ensures electrical contact with the buffer. If the frit is discolored or dried out, it has to be replaced.**

1. Switch off the potential & unplug the cell cable.
2. Remove the SB electrode from the vessel cap of the SynthesisCell.
3. Remove the silver rod from the glass tube.
4. Remove the remaining KCl from the tube.
5. Clean all parts with demi-water.
6. Fill the glass tube with the saturated KCl solution and add some KCl crystals to ensure prolonged saturation.
7. Place the silver rod in the glass tube.
8. Fill the provided storage vessel with the saturated KCl solution.
9. Place the SB electrode as shown in the photo on the right side.



Saturation and air bubbles

For reproducible working conditions the sb REF needs to contain saturated KCl (visible KCl crystals) and the solution must be free from air bubbles. **If you do not see chloride salt crystals or if you see air bubbles, your REF needs maintenance.**