

Preparing to Use New Reference Standards

If you follow these steps, they will become Good Laboratory Habits.

1. Verify that the standard has not expired and has been stored according to the CoA.
2. Examine the ampule/container, do the contents appear as expected?
3. Read and follow any special instructions for the particular standard.
4. If planning to prepare several standards for use, only work with one standard at a time to prevent cross contamination and confusion.
5. Allow the standard to come to room temperature.
 - **Do not** open ampoules or vials until they have reached room temperature. This avoids contaminating standards with water condensed from the air.
 - If instructions do not indicate otherwise, sonicate the sealed ampule for 10-15 minutes, then allow to cool to room temperature.
 - If necessary and if you did not sonicate, gently hand warm the sample.
 - If the standard was frozen, allow for an adequate period of time for it to come to room temperature, typically 24 hours. **Do not** rush this process by subjecting the standard to extremes in temperature.
6. Once at room temperature invert the ampule several times, this ensures no analytes are trapped in the headspace.
7. Safely crack open the ampule.
8. Transfer the contents to an appropriate pre-labeled, sealable (think about color coded caps) container (vial, volumetric flask) with a pipette. Silanized vials are preferred.
9. When transferring, take care to avoid losses of the very volatile components. For example, holding the barrel of a syringe/pipette in your hand can warm it enough to lose some of the most volatile components.
10. If your standard is photosensitive, store it in an amber vial.