

## Why are the same size autosampler vials listed as 2mL 1.8mL or 1.5mL by different suppliers - FAQ

### There are a number of ways to consider the volume of a vial.

One way is if you fill the vial all the way up until there is no headspace when the cap is secured. You could call this a 2mL vial. In practice though, a sample should not contain this much volume because of displacement caused by the autosampler needle during injection and therefore the amount used should be determined by your own needs.

For this reason, a 1.8mL of 1.5 "useable volume" designation is sometimes stated instead. This is known as a "nominal" volume or simply a name even though the vial will hold 2mL.

**NOTE:** Why is this important to know? If you fill the vial to the brim, it will contain approximately 2ml. If you put a needle in it to remove some of the liquid for injection, the needle will displace the liquid and it will spill over the top. If a cap is on the vial, liquid will squirt out of the hole the needle makes. So the volume for autosampler filling is called a nominal volume.



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