

## Volumetric solutions (4.2.2): I have trouble achieving the repeatability criterion of 0.2% relative standard deviation (RSD).



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### Answer:

It is acknowledged that the repeatability requirement of 0.2% RSD is ambitious; nevertheless, this is achievable under normal laboratory conditions. The error on the titre determination has to be limited as the content specifications of titrimetric assays are in most cases set at  $100.0 \pm 1.0$  per cent.

The molarity of the volumetric solutions has to be determined by an appropriate number of titrations. Even if 3 titrations were sufficient to calculate the RSD, it is often better to increase the number of titrations to be able to fulfil the criterion (e.g.  $n = 6$ ). The RSD criterion is applicable in all cases regardless of the titration mode (automatic or manual) and the type of end-point determination (electrometric or visual).