

Green Team

How to use the METHANOL TESTER

If you want to use a MT properly, you will need the following items:

- ❖ Trial jar
- ❖ Thermometer

The first thing you need to do is to calibrate your MT.

It is a simple process which will determine whether your readings will give you any useful information.

This is what you need to do TO CALIBRATE / SANITISE YOUR MT:

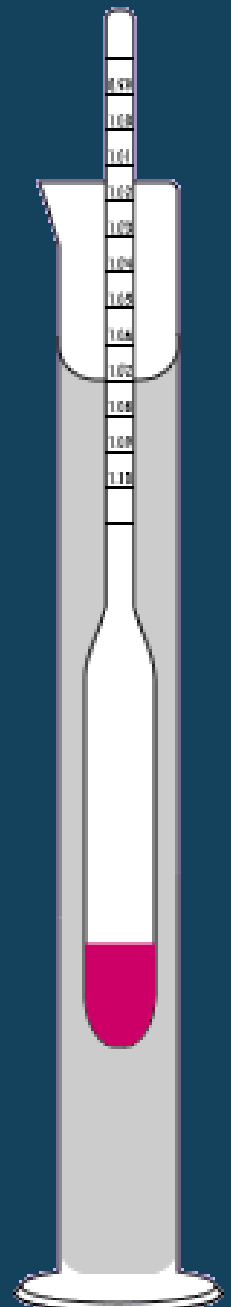
1. Keep a trial jar with water near your sample of methanol. The idea is that this water will have the same temperature as your sample.
2. Before using your MT (every time!): Check the reading of the water. It should be around 1000 (0 on some MT) but it will vary depending on temperature and scale errors.
3. If your MT shows, say 1002 (+2) you obviously need to take your reading minus 2 to get it right. Then simply take all your MT readings minus 2 and that's it!
4. Similarly of course, if your MT shows 997 (-3) on the water - just add 3 to all your readings.
5. Remember that you have to check the water reading every time because temperature might have changed and/or your MT scale might have moved inside the MT.

How does it work?

The easiest way to explain how a MT works is with pictures.

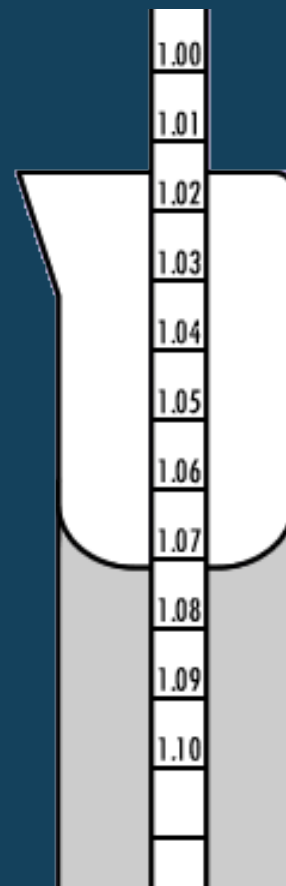
Take a look at Diagram 1, on the right which represents a test jar of methanol.

The MT is floating rather high. This is because the liquid is "heavy" the MT is pushed up because of this.



1. Sanitize the MT, and test jar. (As described above.)
2. Place test cylinder on flat surface.
3. Draw a sample of "clean" methanol - avoid testing samples that contain solid particles, since this will affect the readings.
4. Fill the test jar with enough liquid to just float the MT - about 80% full.
5. Gently lower the MT into the test jar; spin the MT as you release it, so no bubbles stick to the bottom of the MT (this can also affect readings).
6. Making sure the MT isn't touching the sides of the test jar and is floating freely, take a reading across the bottom of the meniscus (see diagram to the right).

Meniscus is a fancy word for the curved surface of the liquid.



Once you have finished your testing, clean the MT very gently using warm water. Dry using a paper towel and place back into the plastic container as supplied with the MT.

MT's are very fragile – please take care whilst storing them.

Good luck, and we hope you have much success in testing your methanol.