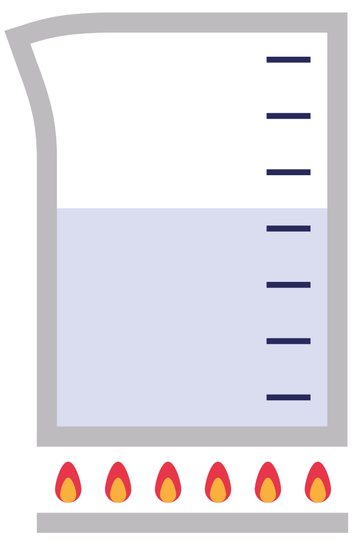
Thermometer Calibration

Boiling point method

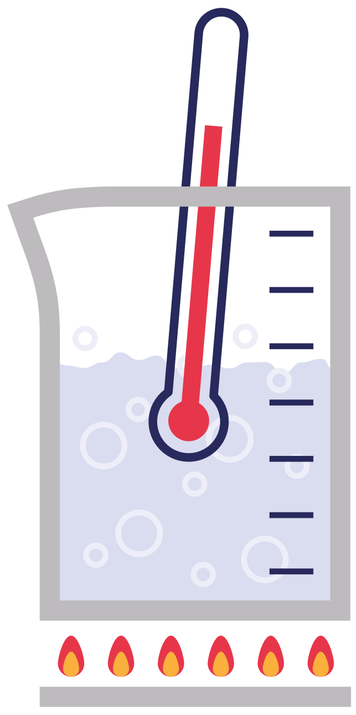
The boiling water method is used for thermometers that are **utilized for measuring high temperatures.** Calibration must be performed regularly to ensure accurate temperature readings.

This method is performed as follows:



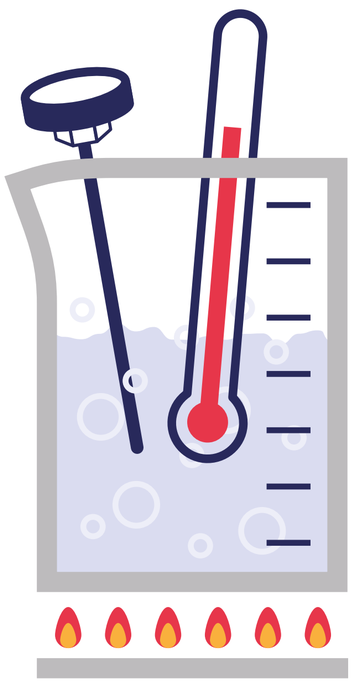
1

Fill a deep pan or a glass beaker with distilled water and boil over medium heat.



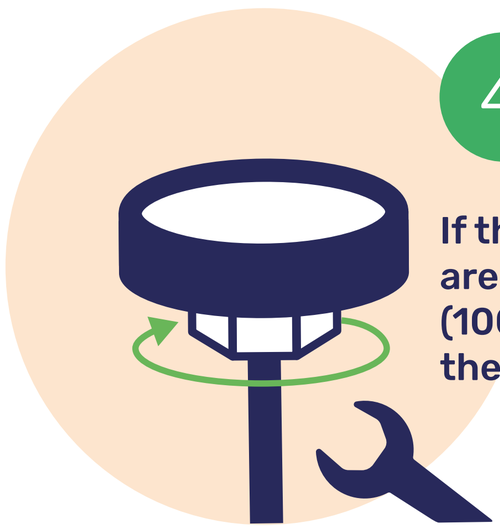
2

While the water is boiling, place a previously calibrated thermometer into the water and allow it to read the temperature.



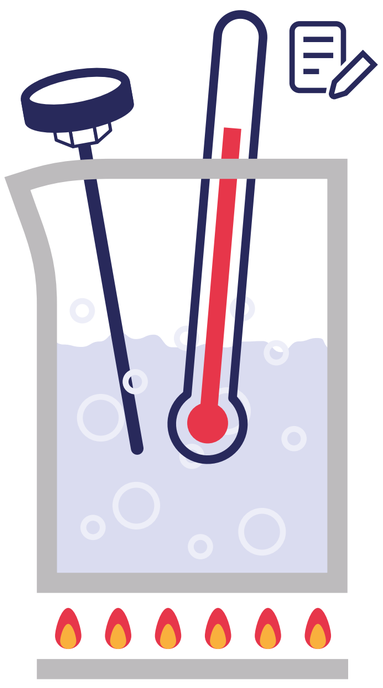
3

After 30 seconds or once stable, place the thermometer being calibrated and read the temperature measurements. Do not let both thermometers touch the bottom of the pan or glass.



4

If the temperature readings are not the same, ideally 212°F (100°C), adjust the nut until the reading is correct*.



5

Reread the temperature of the boiling water using the calibrated thermometer at least two to three times and record results on a logbook. Wash the thermometer with room temperature water in between readings.

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*For non-adjustable thermometers, an offset value sign can be placed on the thermometer dial as a note. That is, if the temperature reading is 2° higher than the expected reference value, all succeeding readings after calibration must be deducted by 2°.

**If temperature readings are significantly far from the expected value, replace the thermometer.