

Name of Procedure:

Mettler Analytical Balance (Model AE163)

Suggested Uses:

To weigh reference standards for reagents and other items.

Apparatus Used to Perform Procedure:

Mettler Model AE163
Paper, boxes, plastic bags or other appropriate weighing vessels

Calibration:

1. Calibration for all Drug Chemistry Section balances is done on a yearly basis by an approved outside contractor.
2. Certificates of Calibration issued by the contractor will be stored in a file in the Section Conference Room.

Calibration Verification:

1. The balance will have a verification performed using the set of standard weights before each use.
2. Balance verifications are to be performed as follows:
 - a. Turn on the balance.
 - b. Follow manufacturer's recommendations for leveling.
 - c. Using the control bar set the balance to the desired range (30 g or 160 g).
 - d. Using the control bar set the Integration Time (Int) to the desired level (1 – shortest, 2, 3 - longest). Integration Time of 3 is recommended.
 - e. Using the control bar set the Stability Detector (ASd) to the desired value 1 – greatest sensitivity, 2, OFF). Stability Detector of 1 is recommended.
 - f. Zero the balance with nothing on the pan.
 - g. Place the standard weight on the pan and read results.

3. At least three standard weights must be utilized. The weights chosen shall be based on the range selected for weighing the items of interest. If the range selected is 30 g then the standard weights must weigh within +/- 0.02 mg of the expected value. If the range selected is 160 g then the standard weights must weigh within +/- 0.1 mg of the expected value.

If results are within the range listed, the balance can be used for weighing. If the results are outside these parameters, the balance will not be used until all necessary steps have been taken to bring the balance into compliance. Steps may include cleaning, leveling, re-taring, performing the calibration as described in the manual, or contacting an approved service contractor.

4. Results of calibration verifications will be documented in the balance logbook.

Application of Procedure:

1. Tare the weighing container that will hold the items to be weighed.
2. Place item on tared weighing container.
3. Record the weight of the item.

Safety Concerns:

Make sure balance is plugged in and is not near a source of water.

Literature Reference:

Operator Manual for Model AE163.