

University of Waterloo Mass Spectrometry Facility (UWMSF)

Weighing Balance Standard Operating Procedure (SOP)

NOTE: As a user of the UWMSF, if you notice that any of the balances in either C2-267 or C2-268 are damaged or non-operational, please email or find Dr. Yiming Xiao (YX) and Dr. Joshua Featherstone (JF) who will investigate the problem – do not attempt to repair yourself.

Aim: This SOP describes the optimal use and maintenance of a laboratory balance, used to measure mass to a high degree of precision.

Procedure:

- Check whether the sensitivity of the balance is appropriate for the amount of material to be weighed.
- Zero the balance before use.
- Put material to be weighed in a suitable container or on weighing paper, never directly on the pan of the balance.
- Determine the mass of the weighing container or paper and then press tare to deduct the weight of the paper or container
- Place the material to be weighed in the container or on the weighing paper in the middle of the pan to avoid corner-load error
- Note the mass of the substance being weighed from the screen of the balance
- To prevent contamination of stock material, do not return unused substance to the stock bottle
- Clean the balance with a soft, clean brush after use. Refer to manufacturer's manual for other instructions on cleaning. Balance pans and the working area can be disinfected with 70% ethanol.