

## Purpose

The purpose of this SOP is to provide instruction in the proper use of the swinging bucket centrifuge.

## Materials

1. 70% ethanol
2. Kimwipes

## Methods

1. Switch the centrifuge ON and open the chamber door.
2. Select the appropriate sample adapters for the run. Wipe down the rotor arms, buckets, and sample adapters with 70% ethanol. DO NOT USE BLEACH. Allow the excess ethanol to dry completely.
3. Prepare suspensions to be centrifuged in the appropriate tubes. The volume should be ~75% of the tube capacity. Do not exceed 75% tube capacity.
4. Confirm that each pair of tubes is balanced by weighing them. Improperly balanced sample tubes will cause significant damage to the centrifuge and is a major safety hazard. Ensure tube lids are correctly sealed (rubber O-Ring in place, lid tightened).
5. Insert the appropriate sample adaptors into the adaptor buckets. Confirm the adaptor buckets are correctly placed on the rotor arms (should freely move back and forth if bucket is pushed lightly with your finger).
6. Place sample tubes into sample adaptors. Balance the rotor by positioning sample tubes of the same weight across from each other in separate buckets.
7. Place the rotor cover on the rotor base. It should fit securely on the spindle in the center of the rotor.
8. Close the chamber door.
9. Program in the appropriate run time, speed, and temperature.
10. Push the START button to begin running the suspensions.
11. Use the log sheets to report the run information including your name, lab name, speed at which the sample is running, start time and estimated run time.
12. Once the centrifuge has completed running and has come to a complete stop, the chamber door will unlock. Open the door to retrieve the samples. Do NOT attempt to open the chamber door until the rotor has completely stopped (0 RPMs).
13. Leave the chamber door open and shut off the centrifuge. Remove the sample adaptors from the buckets. Wipe the rotor arms, buckets, and sample adaptors with 70% ethanol. Place the sample adaptors in the drawer next to the centrifuge. DO NOT USE BLEACH. After the excess ethanol has dried, gently close the chamber door.

**Report any problems or equipment damages to the Spokane lab services group ([spok.labservices@wsu.edu](mailto:spok.labservices@wsu.edu), 509-358-7621)**