

Cleaning Procedure for Porcelain Crucibles

1. Turn on muffle furnace and hit **Start / Stop** one time. Do so approximately one hour before you want to start the procedure in order to bring temperature of furnace up to 950°C.
2. Wearing neoprene gloves, wash crucibles with cold water. Use a brush to remove sediment. You can use a very dilute soap solution (Alconox soap, located under sink) only if necessary. Thoroughly rinse crucibles in DI water.
3. Rinse crucibles with acetone and set on a paper towel to air dry.
4. When the muffle furnace reaches 950°C:
 - a. Remove neoprene gloves.
 - b. Put on safety glasses.
 - c. Put on the pair of fire-retardant gloves.
 - d. Using long metal tongs, carefully place each crucible into furnace.
 - e. Close the furnace door when you are not actively placing a crucible into the furnace. This reduces temperature drop and the risk of burns.
 - f. If your hands get hot, take a break and remove the gloves to cool down.
5. Once the furnace has been stable at 950°C for 15 minutes:
 - a. Remove the lid to an empty Pyrex desiccator.
 - b. Put on safety glasses.
 - c. Put on the pair of fire-retardant gloves.
 - d. Using long metal tongs, carefully move crucibles to the desiccator one at a time.
 - e. Close the furnace door when you are not actively removing a crucible. This reduces the risk of burns.
 - f. If you are done with the furnace for the day, turn off the furnace.
6. Note: the muffle furnace has a capacity of ~12-15 crucibles. If you are cleaning much more than 12 crucibles, repeat steps 4 and 5 as needed.
7. Wait at least 2 hours before handling the clean crucibles. The lid to the desiccator will likely be difficult to remove. See Dr. Lukens or Mr. Ron Phillips for assistance if needed.