

SOP: Biosafety Cabinet (BSC)

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Equipment Overview

The biosafety cabinets in the Tissue Foundry of CRAFT are to accommodate Biosafety Level 2 (BSL-2) activities such as microbial or tissue culture work. A downward HEPA-filtered airflow provides a sterile environment inside the BSC by recycling and filtering the airflow from the grills located at the front and back.

Notes before use:

- Report any injuries, accidents, or major spills to a CRAFT staff member.
- Immediately stop work and tend to BSC alarms.
- Wear the necessary PPE (lab coat, gloves) when operating the BSC.
- Read the MSDS for the materials being used.
- Listen for fan noise inside the BSC to confirm the HEPA filter is working.
- Spray gloves with disinfectant, rearrange items, and space inside the BSC.
- Decontaminate BSC surface and inner surroundings with disinfectant.
 - Spray RTU solution (or 70% ethanol) onto the surface and wait for 3-5 min contact time. It's best to do this in the beginning.
- Spray items with 70% ethanol before they enter the BSC.

Supplies and Reagents

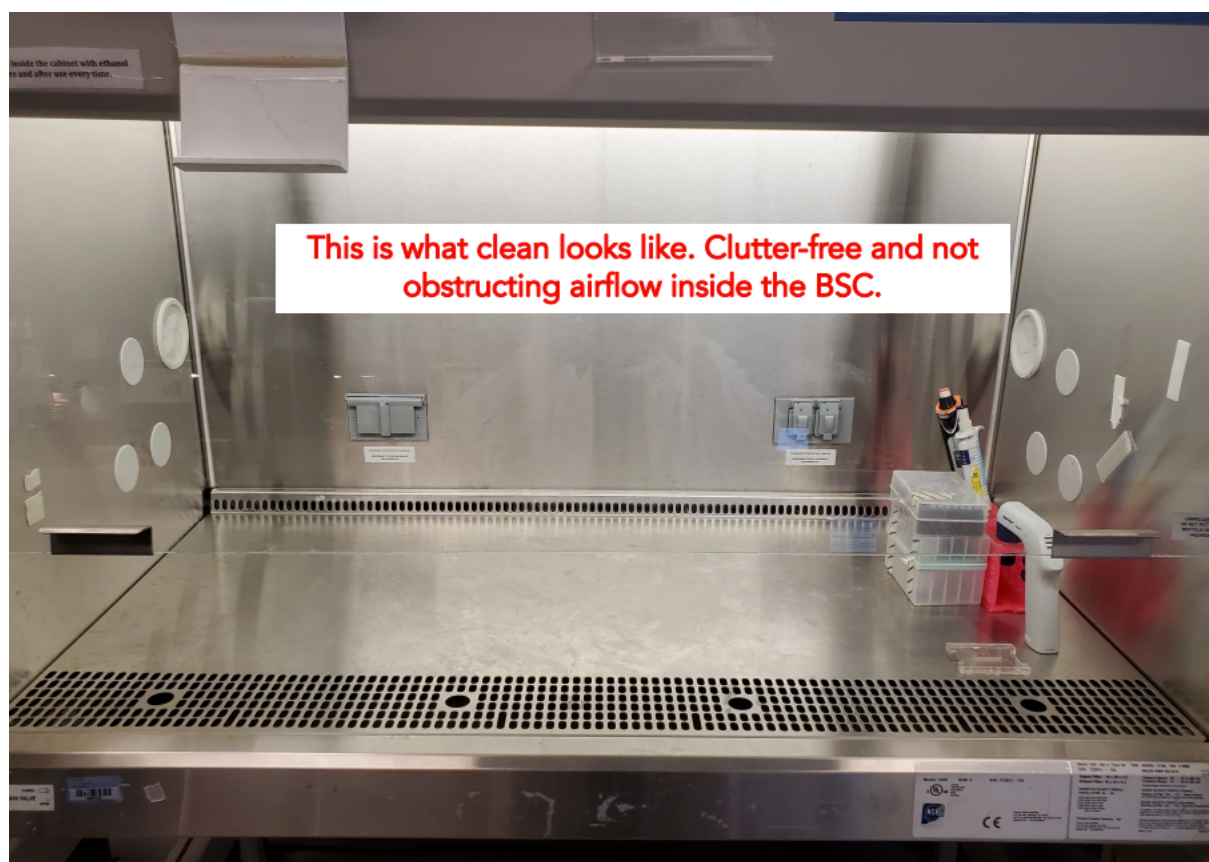
1. Kimwipe
2. RTU (or 70% ethanol)
3. Waste container
4. Gloves
5. Lab coat

Method

1. Organize and plan work efficiently inside the BSC.
2. Move arms in and out slowly, perpendicular to the BSC sash to minimize air flow disruption.
3. Never work above the sample as airflow is flowing downward.
4. Ensure vents are not blocked while working.

Cleanup:

1. When lab work is complete, decontaminate all common surfaces and equipment/supplies before removing them from the BSC.
2. Dispose the contaminated tips and biological waste (empty media bottles, plates, dishes) into the yellow biological waste pail.
3. Spray the work area with RTU disinfectant and Kimwipes.
4. Close the sash and turn off the lights if the BSC is not used.



Troubleshooting:

1. Any minor spills can be absorbed using Kimwipes, followed by a secondary wipe using 70% ethanol. The contaminated wipes are to be disposed into the yellow biological waste pail. If a major spill occurs, seek out the Spill Kit underneath the lab sink.