



TITLE: Sterilization of the BSC surfaces and Gloves

SOP Category: Gnotobiotic

CMR SOP #: 4.22

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Approval: *LaTisha V. Moody, DVM, DACLAM*

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SCOPE:

This document describes the procedures to be followed when sterilizing the BSC (Biosafety Cabinet) and gloves. This SOP applies to all Animal Care Staff (ACS), ACS Supervisors (ACSS), Veterinary Staff (VS), and Research Staff members (RS) at the Rutgers Gnotobiotic University facilities.

OBJECTIVE:

The objective is to describe the process to sterilize the biosafety cabinet (BSC) and glove attachment using the Allentown individually sealed positive pressure (SPP) Sentry caging system for axenic & gnotobiotic mice.

PROCEDURES:

Filling the Clidox Bottles:

1. Use the Clidox Pharmacal mixing station to mix Clidox to a 1:3:1 concentration (1 part base: 3 parts water: 1 part activator). Make sure the Clidox reservoir bottle is completely empty before creating a new Clidox solution. This sterilant solution is only active for 24 hours if stored at room temperature and protected from sunlight.
2. Wait 15 minutes for Clidox to activate.
3. Fill 1 opaque spray bottle with Clidox 1:3:1 solution and mix. Put the date on the bottle.

Sterilizing the Biosafety Cabinet:

1. Make sure the blower is turned off on the BSC and lift the sash.
2. Don a chemical respirator before spraying Clidox.
3. Wipe off any debris in the BSC using sterile paper towels moistened with Clidox.
 - a. Note: a surface cannot be sterilized with debris on it.
4. Spray the interior surface of BSC with Clidox paying close attention to the Transfer Chamber (TC) handles inside the hood. Ensure all surfaces inside are fully saturated with the Clidox. Do not spray the ceiling of the BSC as this is where the HEPA filter is located.
5. Lower the sash to the sash height indicated on the BSC.
6. The timer should be set to 15 minutes. Press the start button on the timer.

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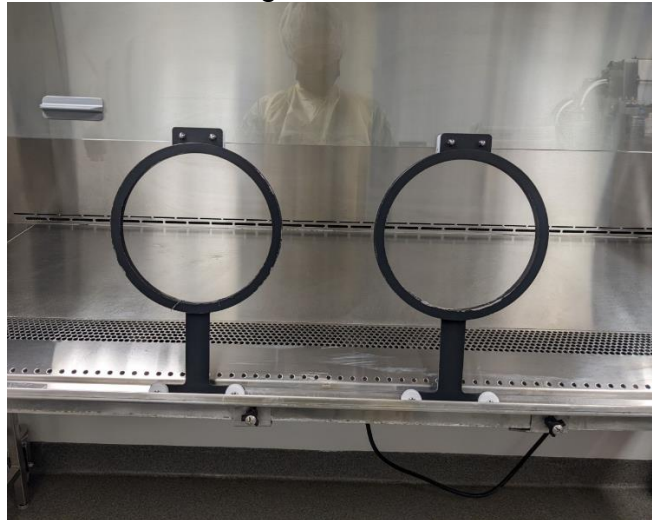
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7. After 15 minutes have passed, turn on the blower and allow 3-5 minutes for the filtered air to circulate inside the BSC.

Sterilizing the Biosafety Cabinet with the Honeywell Gloves

1. Sterilize the Honeywell glove attachments before use. Make sure the blower is turned off on the BSC and lift the sash.
2. Wipe off any debris in the BSC using sterile paper towels moistened with Clidox solution.
 - a. Note: a surface cannot be sterilized with debris on it.
3. Spray the interior surface of BSC with Clidox paying close attention to the TC handles inside the hood. Ensure all surfaces inside are fully saturated with Clidox. Do not spray the ceiling of the BSC as this is where the HEPA filter is located.
4. Lower the sash to the sash height indicated on the BSC.
5. Attach the glove rings to the sash and glove ring rail. Make sure glove rings are secure between the sash and glove rail.



6. Refer to CMR SOP 4.21 *Cleaning the BSC surfaces & Glove Maintenance* for cleaning and inspecting Honeywell gloves before sterilization.
7. Put on one of the Honeywell gloves outside of the BSC and spray the entire glove with Clidox. Spread the fingers out and saturate in between all spaces. Carefully put on an XL nitrile glove over the Honeywell glove. Slightly move your hand back inside the Honeywell glove, then spray the entire nitrile glove.

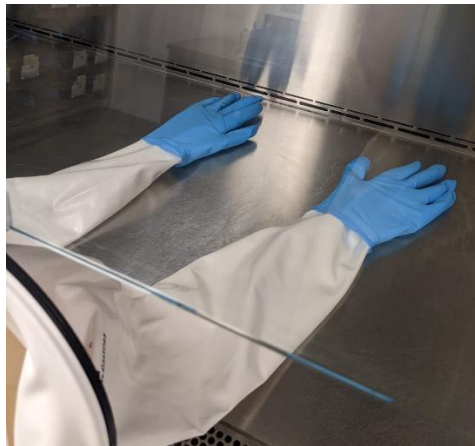
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8. Without touching the rings, place the sprayed glove through one of the glove rings and rest on the inside surface of the BSC. Remove your hand from the glove and tuck the outer edge of the glove (bead) into the groove of the glove ring.



9. Repeat steps 7 & 8 for the second Honeywell glove.
10. The timer should be set to 15 minutes. Press starts on the timer.
11. After 15 minutes have passed, turn on the blower. Allow 3 – 5 minutes for the air to circulate inside the BSC.

Sterilizing the Transfer Chamber:

1. Wipe any debris from the TC with paper towels moistened with Clidox.
2. Spray the entire interior of the TC with Clidox, paying extra attention to the turntable.

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3. Spray the inside of the front door to the TC and close the door.
4. The timer should be set to 15 minutes. Press start on the timer.