Micro–Isolator Technique

Division of Laboratory Animal Resources
Initial Preparation

- Turn on work station hood fan and light
  - Allow to run for several minutes (about 4-5 at least)
  - Make sure that the sash is at the correct working height

DO NOT disable the alarm

TOO HIGH

Correct Height
Laminar Airflow Work Stations

Sash Too High

Correct Height
Disinfectants

- MB-10
  - Chlorine dioxide High level disinfectant
  - Tuberculocidal
  - Bactericidal
  - Virucidal (MHV, Sendai, PVM, LCMV, etc.)
  - Fungicidal

Alternate disinfectants such as Clidox® (not currently used in DLAR)
  - High level disinfectant
    - Tuberculocidal
    - Bactericidal
    - Virucidal (MHV, Sendai, PVM, LCMV, etc.)
    - Fungicidal
  - Contact time is important
Protective Clothing

- Laboratory Coat
- Disposable Gown
- Sleeves
- Gloves
Protective Clothing

- Make sure that your gloves overlap the sleeves
- Take care not to expose any skin
Disinfection

- Spray the work surface of the hood with disinfectant
- Wipe gross debris from the work surface
Disinfection

- Spray and wipe down the internal sides of the hood
- Do NOT spray the HEPA filter area of hood
Disinfection

- Fill forceps tray with disinfectant from the spray bottle
- Spray sleeves, gloves, and forceps tray
- Rub hands together to distribute disinfectant
Additional Requirements

- The floor of the hood should be sprayed periodically to prevent contamination between filter tops.
- Dip fingers and forceps (if used) in MB10 solution between different boxes of mice.
- It is important, especially when handling mice and equipment that may present a possible contamination that hands, work surfaces, caging, cage card holders, and instruments used for handling the mice, be kept continually wet with disinfectant, to help prevent the spread of possible contaminants such as fur mites.
Preparing to Change Dirty Boxes

- Place all necessary items in the hood (i.e. clean boxes, water bottle baskets, food container)
- Spray the outsides and bottoms of all items in hood with disinfectant
Preparing to Open/Change Boxes

- Place the micro-isolator in the hood, spray the outside of the box with disinfectant® (this includes the clean box if you are changing dirty boxes)
- Avoid spraying the cage card
Handling the Micro-Isolator

- Remove filter top by tilting it to the left or right
- Place filter top on floor of hood right side up
Handling the Micro-Isolator

- An acceptable alternative is to rest the lid against the back of the box
Disinfection

- Touching the outside of the micro-isolator contaminates your gloves.
- Dip gloves in forceps tray filled with disinfectant until completely wet. This should be done after handling each cage.
- Rub hands together.
- If using forceps, remember to submerge them in disinfectant when not in use.
Handling the Micro-Isolator

- Turn water bottle upside down
- Turn wire bar lid sideways across the cage
Perform procedures, weaning, or transfer animals from dirty cage to clean cage.
Handling the Micro-Isolator

- Replace the wire bar lid
- Turn water bottle so that sipper tube is pointed downward
Handling the Micro-Isolator

- Replace filter top
Clean Up

- Clean work surface of hood with disinfectant and paper towels
- Throw away used gloves and sleeves
Handling PIV caging

- Micro-Isolator caging regardless of style or manufacturer should be handled in the manner just described.
- Static Micro-Isolators
- All PIV caging
  - Small PIV
  - Large PIV
  - Green line
  - Rat PIV caging
Questions?

If you have questions concerning proper MicroIsolator techniques please contact one of the DLAR supervisors, our DLAR veterinarians, or our training coordinator and we would be happy to assist you.

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