

## STANDARDS FOR MANUAL SANITIZATION OF EQUIPMENT

### Scope

The *Guide for the Care and Use of Laboratory Animals* acknowledges that equipment and accessories in direct contact with the animals should be cleaned and disinfected as needed to provide a healthy environment for an animal. Equipment used in the laboratories that directly enclose an animal should have "...impervious surfaces with minimal ledges, angles, corners and overlapping surfaces so that accumulation of dirt, debris, and moisture is minimized, and cleaning and disinfecting are not impaired." (*Guide*, p. 51). The frequency of cleaning and disinfection must be considered along with regular evaluation of sanitation effectiveness. "Sanitation of cages and equipment by hand...can also be effective but require considerable attention to detail" (*Guide*, p. 72). "Whether the sanitation process is automated or manual, regular evaluation of sanitation effectiveness is recommended" (*Guide*, p. 73). AAALACi requires that a program be in place for assessing sanitization of manually sanitized equipment. The following guidance has been established to ensure that manually sanitized research equipment in contact with animals is adequately cleaned for animal use.

Included in the scope of this guidance document is any laboratory equipment that directly encloses an animal and requires manual sanitization, e.g., restraint devices, behavioral equipment (mazes, activity monitoring boxes, etc.), metabolism cages, etc.

### Guidance

1. Equipment that cannot be washed in the rack or tunnel washer must be manually sanitized by the responsible research personnel using appropriate materials. Principal Investigators (PIs) are responsible for developing SOPs for equipment sanitization and the efficacy assessment of the sanitization for any lab equipment that meets this definition.
2. Manually sanitized equipment must be cleaned and disinfected at the end of every day it is used or between groups of animals with differing health status. Equipment may be sanitized more frequently depending upon the condition of the equipment or research needs. Sanitization of equipment using Sani-Cloth Wipes (an effective disinfectant) is outlined in Appendix 1. A video that demonstrates the process is also available: [Manual Sanitization SOP](#). Other disinfectants may be used including

Virex Plus, 70% Ethanol or Peroxigard disinfectant wipes, all of which are compatible with the Charm® sanitation system, outlined below. The type of disinfectant should be compatible with the equipment being sanitized and the system used to assess the sanitization SOP.

3. The effectiveness of the sanitization SOP should be assessed at least semiannually. It should also be assessed when new equipment is introduced or when a new person is assigned responsibility for laboratory equipment sanitization. Assessment results should be recorded and must be available for review by IACUC or regulatory agency inspectors.
4. Testing the effectiveness of sanitization
  - The laboratory member will sanitize the equipment, then test the equipment using a Charm® swab (see Appendix 2). A video that demonstrates the process is also available: [Charm Swab SOP](#). The laboratory is responsible for purchasing Charm® swabs, which can be purchased directly from the vendor or from CCM.
  - The laboratory member will read the Charm® swab with a Charm® reader. Charm® readers are available through CCM for PIs to use; contact a CCM facility manager for information and training. The reader will have a limited number of swabs provided as part of the rental. The laboratory is responsible for purchasing additional Charm® swabs.
    - Pass – effective sanitization is recorded
    - Fail – repeat the sanitization process and re-evaluate effectiveness.

## References

[Guide for the Care and Use of Laboratory Animals](#), 8<sup>th</sup> ed.; National Research Council of the National Academies; the National Academies Press: Washington D.C., 2011; pp. 51-73.

v1.1, 18 December 2019

v1.2, 03 March 2021

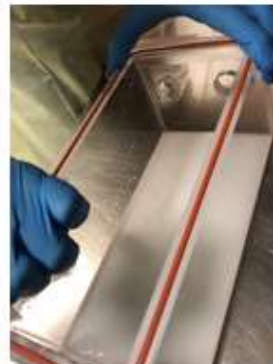
## Appendix 1. Sanitization Using Sani-Cloth Wipes

	<b>STANDARD OPERATING PROCEDURE</b>	<b>Version: V1</b>
	<b>Sanitization Using Sani-Cloth Wipes</b>	

1. Clean equipment of all content by removing any debris (bedding and feces)
2. Wearing gloves, take one Sani-Cloth wipe from dispenser.




2. Vigorously wipe contaminated area with Sani-Cloth wipe, allowing surface to become wet. For heavily soiled items, use multiple wipes to assure continuous wet contact time of 2 minutes for entire surface.



2. To test for effectiveness, allow item to air dry for 3 minutes and refer to CCM's Charm Swab SOP packet for using Charm® swabs and NovaLum® monitor.



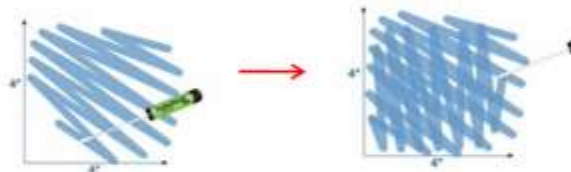
## Appendix 2. Using Charms Swab

	STANDARD OPERATING PROCEDURE	Version: V1
	<b>Using Charms Swab</b>	

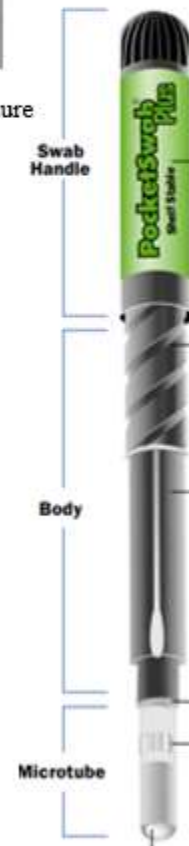
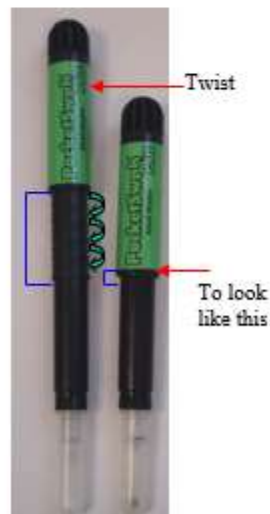
1. Do not touch clear tube at bottom of swab. Withdraw swab from container by twisting counterclockwise and pulling on the green end of the swab. Do not let the white swab touch any other area besides the testing site. Site can be wet when swabbing but only with water. Chemicals will give a false positive.



2. Swab a 4" x 4" (100cm<sup>2</sup> or 16in<sup>2</sup>) with the swab in a cross-hatch pattern. Be sure to twirl swab so all areas of the swab have come in contact with the surface.



3. Insert swab back into body and firmly push and twist clockwise all the way down threads. Once fully inserted, swab should be held upright at all times.



*Pocket swab should be tested within 1 minute of swabbing area. (Please see "Reading Charms Swab with [novaLum meter](#)" SOP)*