**Guidelines for Manual Sanitizing of Caging and Equipment**

Purpose: To provide better management and control of environmental variables that may affect research integrity we are introducing new guidance for animal researchers which formalize the cleaning process for equipment that is used with research animals but that does not go to cagewash.

These Guidelinesoutline procedures for manual sanitization of caging and equipment that may come into direct contact with a live animal.Examples of specific equipment for which these guidelines may apply but are not limited to:

* Behavioral apparatus(es)
* Anesthetic equipment/chambers, surgery tables, ventilators, etc.
* Laboratory equipment/apparatus(es)
* Post-mortem equipment/tools, which must be cleaned but do not require sterilization.

Equipment sanitization and cleaning is described as:

* Minimizing the soiling of equipment when animals are present in test chambers or study cages by changing materials (e.g., paper towel or corncob bedding) between animals
* Removing gross debris (feces or urine) between animals
* Sanitizing caging and/or equipment between experiments
* Use of appropriate, non-expired sanitization chemicals, chemical solutions, and/or sanitization wipes

Initial Base-line Assessments with Individual Labs

* Labs with behavioral, surgical, or procedural spaces for which the new guidelines may apply will receive an email invitation from LAR to review previous results and to discuss and coordinate initial base-line assessment and testing.
* Equipment that comes in contact with animals must be cleaned with an “all-purpose” cleaner to removed superficial dirt and debris, then disinfected with Rescue.

Validation of Sanitation and Maintenance Measure

* Caging and equipment must adhere to outlined minimum standard Adenosine Triphosphate (ATP) levels once sanitized.
* Annual maintenance testing will be coordinated with labs after program is implemented.
* Lab equipment will be tested annually to verify adherence to cleaning regimens.

If you have immediate questions or concerns about these new guidelines or caging and equipment sanitization and testing, please reach out to Dr. Rogers by email at [rogerskar@iu.edu](mailto:rogerskar@iu.edu). You may also request an in-person consultation/lab visit by emailing the Lab Animal Resources Department at [LAR@indiana.edu](mailto:LAR@indiana.edu) .

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**Suggested Sanitizing Products**

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| **Sanitizing Product** | **Vendor** | **REF #** | **Size** | **Recommended Dilution(s)** | **Suggested Contact Times** | **Expiration Date** | **Rough Cost Estimate (subject to change)** |
| **Rescue™**  Disinfecting Liquid Concentrate | Covetrus | 058023 | Gallon | Procedural Spaces   * 1:64 dilution (2oz. product to 1 gal. water) * 1:16 dilution   (8oz. product to 1 gal. water)  Surgical Spaces   * 1:16 dilution   (8oz. product to 1 gal. water) | 1:64 for 10 min.  1:16 for 5 min. | 90 days past dilution | $34.37/gal. |
| **Rescue™**  Ready to Use Liquid Disinfectant | Covetrus | 058281 | 32oz. bottle | Ready to Use @ 1:16 dilution | 1:16 for 5 min. | Provided by manufacturer on product | $7.91/32oz. bottle |
| **Rescue™**  Ready to Use Liquid Disinfectant | Covetrus | 058282 | Gallon | Ready to Use @ 1:16 dilution | 1:16 for 5 min. | Provided by manufacturer on product | $12.15/gal. |
| **Rescue™**  Ready to Use Wipes | Covetrus | 2 Sizes   * 058517-6”x 7” wipes * 072349-11”x 12” wipes   Refill   * 072350-11”x 12” wipes | 2 sizes  (160 ct.)   * 6”x 7” in cannister * 11”x 12” in bucket | Ready to Use @ 1:16 dilution | 1:16 for 1 min. | Provided by manufacturer on product | * $12.78/canister * $41.24/bucket   Refill   * $35.83/bucket |
| 2% Chlorhexidine  Concentrate | Covetrus | 055167 | Gallon | 1 oz. (2 tablespoons) per 1 gallon of water | 30sec. to 2min. and per manufacturer guidelines | Per manufacturer or 6 months after dilution | $24.42/gallon |
| Common “all-purpose" cleaners (i.e., dish soaps, detergents) for  cleaning of gross debris | local stores or online | n/a | n/a | Per manufacturer guidelines | Per manufacturer guidelines | Per manufacturer guidelines | Varies by store/product |

Per Rescue Manufacturer Directions for Use:

(<https://rescuedisinfectants.com/wp-content/uploads/2021/01/7936_Virox_Rescue-RefSheet_Con_05_IN-TRANSITION.pdf>)

* Thoroughly clean all surfaces by removing visible soils with an “all-purpose cleaner” and rinse with water.
* Saturate all surfaces (floor, cage walls and other washable hard, non-porous environmental surfaces) by spraying with disinfectant, use solution until thoroughly wet.
* To disinfect, all surfaces must remain visibly wet for the duration of the recommended contact time for the product.