ROSALIND FRANKLIN UNIVERSITY of MEDICINE AND SCIENCE

Institutional Animal Care & Use Committee

GUIDELINES ON LABELING OF SECONDARY CONTAINERS

A secondary container is defined as any container holding a product that is not the original container supplied by the manufacturer. The 2013 update to the Occupational Safety and Health Administration's (OSHA) Appendix A of its standard 1910.1450 provides some recommendations applicable to laboratories (defined as facilities where the "laboratory use of hazardous chemicals" occurs and where relatively small quantities of hazardous chemicals are used on a non-production basis), based on the National Research Council's (NRC) "Prudent Practices in the Laboratory: Handling and Management of Chemical Hazards." These non-mandatory recommendations include those for labeling secondary containers: **"If chemicals from commercial sources are repackaged into transfer vessels, the new containers should be labeled with all essential information on the original container."**

Standards are in effect to prevent any cases where uncertainty of the handled material could jeopardize the health and safety of anyone on site. In addition, scientific integrity could be compromised if chemicals are inadvertently misused because of inadequate secondary container labeling. While there are no specific mandatory requirements for labeling secondary containers, the IACUC suggests that all secondary containers be appropriately labeled, in the interest of best practices, scientific integrity, and employee safety. If the transferred product is used up in its entirety by the person handling it within the initial work shift, a secondary label would not be recommended. However, secondary containers that are meant to be a more convenient size for lab use (e.g., plastic squeeze bottle, beaker, cuvette, test tube) should be appropriately labeled. Such labels should indicate:

- whose lab does it belong to
- the contents (e.g., contents, drug, concentration)

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- date of preparation or opening, and
- the date of expiration.

Special considerations:

- If the contents are an **injectable or orally administered substance** (e.g., anesthetic drug, study compound), these must be prepared using sterile techniques and stored correctly (e.g., in a sterile injection vial) and used within 7 days of preparation. It is prudent to prepare only as much as can be used in a reasonable period of time. Drugs must be stored properly and in a manner compatible with the agent (e.g., storage of controlled substances in lock boxes). Solutions must not be used if they are cloudy, discolored, precipitated, or otherwise altered in appearance since the initial preparation. Any solution remaining after 7 days should be disposed of properly. Expired drug containers must be labeled (e.g., "*expired—awaiting disposal—do not use in animals*") and stored separately from drugs in date. Controlled substances cannot be discarded without appropriate approval consistent with RFUMS policies (consult EHS). Expired controlled substances must continue to be stored in an approved secure cabinet or safe until discarded.
- Buprenorphine- is typically supplied in a single use glass vial. Once that vial is opened, the remaining analgesic must be aseptically transferred to a sterile glass vial, labeled with contents, open date, and use-by date (within 30 days of initial opening) and stored in a locked cabinet. Storage in syringes is not acceptable.
- **Alcohol/ cleaning/ sanitization agents** : Recommendations are that these agents are secondarily labeled with the product name, the hazardous chemicals the product includes, and words, pictograms, or symbols of the key physical and health hazards (such as inhalation hazard, skin irritant, or eye corrosion hazard). The expiration date should be consistent with that of the parent container. A word of caution regarding surgical prep agents. It has been extensively documented that secondary containers of povidone iodine solutions can become bacterially contaminated[2] with use and so may need to be discarded sooner than the expiration date of the parent container (suggestion is 1 month). In addition, dilute

bleach must be prepared daily as it easily degrades into oxygen and water; thus, a label including date prepared is warranted.

- **Deionized water and distilled deionized water**: During storage, contamination may occur whenever the secondary container is breached or by leaching of minerals or compounds from the container into the distillate. DI columns do not remove particles, pyrogens or bacteria; and have minimal effectiveness with many organics. Ion exchange beds can be a haven for microbial growth and release of particulates. Water that has been deionized is often referred to as “hungry water”, and is easily contaminated, and therefore must be labeled with an expiration date.
- **Surgical supplies**: sterilely wrapped surgical supplies must be labeled with the date of sterilization and the initials of the person who wrapped or sealed the item. The items are considered sterile if the integrity of the wrapping is not compromised at the time of use.

References

1. Appendix A to 1910.1450 can be found on OSHA's website at http://www.osha.gov

2. *Pseudobacteremia attributed to contamination of povidone-iodine with Pseudomonas cepacia.* Berkelman RL, Lewin S, Allen JR, et al. *Ann Intern Med*. 1981 Jul;95(1):32-6. doi: 10.7326/0003-4819-95-1-32.PMID: 7247124

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