University of Nebraska Lincoln

Safe Operating Procedure

(Revised 7/08)

CHEMICAL CONTAINER LABELING

(For assistance, please contact EHS at (402) 472-4925, or visit our web site at http://ehs.unl.edu/)

With few exceptions, chemical containers used and stored at UNL must be labeled to identify their contents. Labeling is important to prevent accidental misuse and inadvertent mixing of incompatible chemicals. Proper labeling also facilitates quick decision-making and action in the event of an emergency (i.e., spillage, exposure, etc.), and avoids the expense associated with handling, management, and disposal of unknown chemicals.

Scope

Labeling of containers used for collection of spent or used (waste) chemicals is beyond the scope of this SOP. Consult the EHS SOP, *Hazardous/Radioactive Materials Collection Procedures*.

This SOP also does not apply to the following: Consumer products (e.g., hair spray); food and food products labeled in accordance with the Food, Drug and Cosmetic Act; samples and specimens received in a lab for testing when the exact composition is not known; and pesticides labeled in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act.

Labeling Requirements by Type of Container

Specific labeling requirements vary with the type of container.

- **Containers provided by a manufacturer** must be labeled with the following information: chemical name[1]; physical hazards[2]; health hazards[3]; target organ; and manufacturer name and address. Manufacturers' labels must not be removed or defaced.

- **Durable containers** is a term coined at UNL to mean chemical containers that are not provided by the manufacturer and which are intended for use that extends beyond a work shift or which will be shared by several employees. For

example, a secondary stock solution prepared from a chemical received from a manufacturer is generally stored in a "durable container." At a minimum, durable containers must be labeled with the chemical name[1] (concentration is recommended, but not required). In non-laboratory settings, the container must also be labeled with physical hazards[2]; health hazards[3] and target organ(s).

- **Transient containers** means those containers that will be used to hold chemicals for less than one work shift *and* that will be under the control of the person filling the container. No labeling is required for these containers until they are no longer under the control of the person who prepared the material. Examples include solutions that will be used immediately in an experiment and cleaning solutions that will be used by the end of a shift. *If a transient container is left unattended in an unsecured area, it must be labeled in accordance with the requirements for durable containers.*

Exceptions, Special Circumstances, and Other Considerations

- Containers of practically non-toxic and relative harmless chemicals only require labeling with the chemical name[1].

- Use of *empty food containers* for storage of chemicals is not recommended. In the event it becomes necessary to use an empty food container for temporary chemical storage:
  1. Thoroughly deface all food labels and food references on the container.
  2. Clearly re-label the container in accordance with the above requirements.
  3. Affix a label "Not For Human Consumption" to the container.

- Small containers**,** such as vials and test tubes, can be labeled as a group by labeling the outer container (i.e., rack or box). Alternatively, a placard can be used to label the storage location for small containers (i.e., shelf, refrigerator, etc.).

- Any media can be used to label containers as long as it is resistant to smearing and fading. Old labels must be completely defaced or removed when reusing containers, unless the old label accurately describes the new contents.

- OSHA's Hazard Communication Standard, which applies to non-laboratory settings, provides additional exceptions for use of codes that will accurately depict hazard warnings. Consult EHS for consideration of this option. When using this option, keying of a code to a MSDS only to accomplish hazard warning labeling is not acceptable. The coding must provide immediate visual warning of the hazards associated with a chemical.

[1]Chemical name can mean an acronym or shorthand abbreviation *if* a cross-reference between the fully written chemical name and its associated short-hand name is posted in the work area.

[2]Examples of physical hazard warnings (which can be described in text or associated standard symbols) include: flammable, pyrophoric, organic peroxide, pyrophoric, oxidizer, corrosive, explosive, and water reactive.

[3]Examples of health hazard warnings (which can be described in text or associated standard symbols) include: corrosive, poison, toxic, mutagen, reproductive toxin, carcinogen, irritant, and sensitizer.