

Washington State University Health Sciences Campuses

Secondary Labelling Program

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I. Objective

The objective of the Washington State University Health Sciences Campuses Secondary Labelling Program is to effectively communicate the hazards associated with laboratory chemicals no longer in their original container to anyone with occupational exposure to these substances, including laboratory workers and nonlaboratory staff who enter spaces where hazardous chemicals are used and stored. These labels must be compliant both with OSHA's and Washington state's Hazard Communication Standards: CFR 1910.1200 (f) and WAC 296-901(6b).

- OSHA: <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200>
- Washington state: <https://lni.wa.gov/safety-health/safety-rules/chapter-pdfs/WAC296-901.pdf>

This labelling program does not apply to chemicals that are used by a single individual over the course of a single work shift.

II. Assignment of Responsibility

A. Management

- Ensure that each container of hazardous chemicals is labelled with words, pictures, symbols, or a combination thereof which provide general information about the physical and health hazards associated with the chemical.
- Ensure that labels are legible, in English, and prominently displayed on the container. Languages other than English may be used in addition to English labels.
- Ensure that labels are readily available in the work area within the work shift.
- Ensure employees are trained in the labelling scheme at the time of initial assignment.
- Inform others within shared spaces not directly under their management of their labelling system.

B. Employees

- Label any hazardous chemicals meant for use by more than one person and/or over more than one shift using the labelling scheme supplied by management.
- Store and use chemicals in ways which do not conflict with labelling

C. Environmental Health and Safety

- Provide Hazardous Communication training, including:
 - general information on physical and health hazards associated with hazardous chemicals
 - methods or observations used to detect the presence of hazardous chemicals in the work area

- measures employees can take to protect themselves from these hazards, and
 - details about hazard communication, including safety data sheets, shipping, and workplace labelling systems, and how to obtain and use hazard information.
- Supply Globally Harmonized System (GHS) compliant labels for laboratory use
- Inspect labs annually, including assessing the effectiveness of each lab's secondary labelling program.

III. Procedures

A. Recommended Labelling System

- Globally Harmonized System (GHS): WSU Health Sciences supplies labels which meet the requirements of the GHS labelling system. The GHS compliant labelling system is composed of 3 parts:
 - The chemical name written in plain English. Chemical names may be supplemented by chemical formulae, abbreviations, or chemical names in languages other than English.
 - The hazard statement of either nonhazardous, warning, or danger, listed here in ascending level of risk.
 - The pictograms associated with the most pertinent hazards. The GHS uses 9 pictograms to represent flammable, corrosive, oxidizing, explosive, acutely toxic, toxic, or carcinogenic upon chronic exposure, irritant, compressed gas, and environmental hazards. The pictogram for environmental hazards is not required.

B. Alternative Labelling Systems

- National Fire Protection Act (NFPA) 704 fire diamond: The NFPA fire diamond is still commonly used around the United States and has recognizable categories for fire (red), health (blue), and reactivity (yellow). The white section can be used to denote specific hazards such as pH. It is important to remember that while GHS uses 1 to designate the highest risk, NFPA uses 1 to designate the lowest risk. Additionally, because NFPA was originally developed for fire fighters, chronic health hazards are not traditionally included in the blue segment and must be addressed separately.
- The Hazardous Materials Identification System (HMIS): HMIS uses the same color band system found in the NFPA fire diamond (flammable/red, health/blue, reactivity/yellow). Unlike NFPA, HMIS uses the blue section to indicate both acute and chronic health hazards. HMIS also uses the white section to designate PPE recommended for working with a particular chemical and can be useful for rapidly communicating working standards. This system uses the same counting direction as NFPA (1 designates lowest risk).

- Self-developed labelling systems may be used so long as they fully meet the requirements of OSHA and Washington State regulations.

C. Labelling Uncharacterized or Newly Synthesized Chemicals

Whenever possible, chemicals should be characterized for basic hazards such as flammability or extreme pH. However, full toxicity and reactivity studies are not practical. WSU health sciences therefore encourages synthetic chemists to label new products with a label stating “Not characterized, treat as:” followed by any hazard associated with the reactions performed during synthesis unless there is scientific justification for removing that hazard. Use of SDSs for chemicals with similar structure is also an acceptable method for establishing potential hazards.

D. Labelling Small Quantities

United States Law does not make labelling exceptions based on size. However, the reality that some containers cannot be labelled with complete information persists. Small aliquots, especially those intended for single use may be labelled one of two ways:

- The box in which aliquots are stored may be labelled with complete hazard information, and aliquots should be labelled so that box information can be readily found. Aliquots should never be stored away from their labelled container and should follow the single worker, single shift rule.
- Small vials may be coded to reference a prominently displayed wall sign which conveys complete hazard information for each chemical labelled in this manner.

E. Labelling Nonhazardous Chemicals

OSHA and Washington State do not require the labelling of nonhazardous chemicals. However, Washington State University—Health Sciences strongly recommends use of a nonhazardous label, especially in shared laboratory spaces where chemicals can be knocked over by those not part of the lab staff. Nonhazardous labels are provided by EH&S in addition to labelling for hazardous chemicals.

F. Employee Training

- In addition to any hazardous communication training provided by EH&S, managers must ensure that employees are trained in reading and using the chosen labelling system. This training should be documented as part of the Chemical Hygiene Plan.

G. Shared Laboratory Spaces

- In shared spaces with multiple labs, managers must have a documented method to inform other managers of the labelling system used in the workspace and this information must be conveyed to employees.