GOAL
The OSHA Laboratory Standard requires employees to be trained in the hazards of the chemicals present in the workplace. As a result, laboratories shall develop inventories to assure that proper training for all chemicals is provided.

PURPOSES
✓ To remove from the facility excess, unused, deteriorated or outdated chemicals.
✓ To identify potentially dangerous chemicals that should not be present or used.
✓ To ensure that all chemicals are managed appropriately.
✓ To comply with local, state and federal regulatory requirements.

THE PROCESS
Individuals who use, store or handle chemicals are responsible for maintaining a current inventory. This inventory shall be in an electronic format which is either accessible by or submittable to EHS in a timely manner. The preferred inventory management tool is Quartzy.

1. PLAN BEFORE YOU START.
✓ Never work alone. Always let someone else know you are working with chemicals.
✓ Don’t involve students unless they have been appropriately trained.
✓ Use appropriate personnel protective equipment. Always wear protective gloves.
✓ Have spill materials available and ensure that emergency showers are operational.
✓ Know where and how to call for help if needed. Have the Public Safety (719)255-3111 and the EH&S (719)255-3212 numbers available.

2. TAKE THE INVENTORY. You may find a voice recorder useful. AVOID TOUCHING OR MOVING OLD OR DAMAGED CONTAINERS. OLD CHEMICALS MAY BE UNSTABLE AND MAY FORM EXPLOSIVE COMPOUNDS. DAMAGED CONTAINERS MAY HAVE LEAKED AND COULD CONTAMINATE YOU. IF IN DOUBT, CONTACT EH&S (255-3212)

A sample form as an Excel spreadsheet is available. EHS can also help with setting up a Quartzy account as part of the UCCS Quartzy account. The Department/Unit may submit the inventory in an existing inventory format, as long as this minimum information is included, the EHS can open the format and the inventory is submitted electronically.
FOR EACH CONTAINER RECORD

- The full label name of the material or chemical
- The CAS number
- Manufacturer’s name (if appropriate)
- Size of the container (NOT the amount of chemical, but the container size)
- Amount of the substance in liters/ml, grams/kg or (for gases) cubic feet

During the course of the inventory, the individual must check the following:

- Condition of containers (no leakage, corrosion, or crystallization)
- Verify that liquids are stored in secondary containment (adequate to contain the contents in catastrophic failure of the primary container) when required
- Hazards are indicated on the individual containers as well as adjacent to the storage location (usually using the NFPA diamond)
- Excess or unused chemicals are returned to stock or properly disposed
- Chemicals are properly stored with incompatibles segregated

3. DOCUMENT THE INVENTORY

As a minimum the inventory will include the following information:

- Inventory Date
- Chemical Location (building name, room number, if located in specific locker or storage unit indicate as specifically as possible)
- Chemical Label Name
- Constituents (if available and material is not a pure chemical)
- Manufacturer (if trade name product)
- CAS Number (if applicable)
- Physical State (Solid, liquid, gas)
- # of containers (for each size - enter multiple lines for the item if you have multiple size containers)
- Amount/container
- Units of measure per container (solids by weight, liquids by volume, gases by cylinder size)
- Notes (optional)
- Hazards (if known) – EHS can assist with this
- NFPA Fire (Red) Rating from label or SDS – EHS can assist with this
- NFPA Health (Blue) Rating from label or SDS – EHS can assist with this
- NFPA Reactivity (Yellow) Rating from label or SDS – EHS can assist with this

A designated person, such as the laboratory manager, may physically conduct the inventory, but the individual responsible for the laboratory (Primary Investigator, Director, Department Chair, etc.) is ultimately responsible for accuracy and must ensure the inventory is submitted by 8/31 annually.

4. ARRANGE FOR DISPOSAL OF CHEMICALS

- Refer to the HAZARDOUS WASTE SOP.
- ELIMINATE ALL CHEMICALS THAT ARE BEYOND SHELF LIFE.
- ELIMINATE ALL CHEMICALS THAT ARE UNUSABLE OR UNNEEDED.
✓ ELIMINATE ALL CHEMICALS (to the maximum extent feasible) IDENTIFIED AS DANGEROUS e.g., shock sensitive, explosive, highly toxic, carcinogenic, mutagenic or teratogenic
✓ Make the appropriate hazardous waste determination
✓ Confirm that your disposal method is safe and appropriate
✓ Confirm that your disposal complies with applicable regulations
✓ Contact EH&S for assistance³
✓ DO NOT DISPOSE OF ANY CHEMICAL MATERIALS OR WASTES DOWN THE DRAIN
✓ DO NOT DISPOSE OF ANY CHEMICALS IN THE TRASH

5. REORGANIZE REMAINING CONTAINERS
✓ Refer to the CHEMICAL STORAGE SOP
✓ Arrange remaining containers into appropriate chemical families and compatibility groups
✓ Ensure both vertical and horizontal compatibility in accordance with local fire codes

6. ESTABLISH AND IMPLEMENT A PLAN
✓ Refer to applicable SOPs and the Lab Safety Manual
✓ Control future chemical purchases
✓ Ensure proper chemical management
✓ Verify appropriate chemical storage
✓ Coordinate proper disposal with EH&S

Maintaining a current inventory can reduce the number of unknowns and the tendency to stockpile chemicals. It also provides an opportunity to check the integrity of the chemicals and containers (i.e. picric acid that has become dry) and assures that a laboratory has not exceeded the quantity limitations for certain classes of chemicals

¹ All references are to the UCCS Lab Safety Manual, unless otherwise noted.
² A suggested spreadsheet format is available on the EH&S website
³ EH&S WILL NOT CONDUCT YOUR INVENTORY FOR YOU – THEY ARE A RESOURCES FOR ASSISTANCE AND TECHNICAL INFORMATION.

Last reviewed by Cynthia Norton on December 15, 2015