



## UConn Health Policy for Maintaining A Chemical Inventory (8/10/17)

### PURPOSE OF POLICY

The goal of this policy is to inform the UConn Health community that EH&S has implemented and maintains Vertere, a chemical inventory tracking system. This policy was written to define the capabilities of Vertere, how it impacts individual departments, and what the roles of EH&S, the Receiving Department and you the end-users, are. Currently, compressed gas cylinders are being excluded from tacked inventorying due to the nature of vendor involvement with deliveries and returns.

### APPLICABILITY

This policy applies too:

- UConn Health main campus research laboratories
- Labs located at 400 Farmington Avenue
- Technology Incubation Program (TIP) labs located at 400 Farmington Avenue
- Hospital clinics and outliers that may receive hazardous chemicals
- Other areas both clinical or facility, not defined, yet receive hazardous chemicals

**Note 1:** The aforementioned areas shall be identified for applicability to end use location and data entry into the Vertere chemical inventory system.

**Note 2:** When UConn Health employees order a hazardous chemical which is subject to Hazard Communication, and defined by OSHA as a chemical having >1% of a hazardous substance and or >0.1% of a carcinogen, then a Safety Data Sheet (SDS) shall be obtained by end users. The end user/requester must request a copy of the current SDS from the chemical manufacturer, and maintain the SDS in a manner, such that exposed or potentially exposed employees have access to the pertinent SDS information.

**Safety Note:** End Users must read and understand the SDS provided, to ensure alignment with UConn Health and regulatory EH&S policies. Safe handling, safe use and storage, proper PPE, exposure limits, first aid, compatibility, reactivity information are but a few key topics covered under the new SDS format, covered by the Globally Harmonized System (GHS). End users must familiarize themselves with the new chemical labels, warning information such as the precautionary and hazard statements as well as have an understanding of what the pictograms represent.

### POLICY GOALS

The Vertere chemical inventory policy's goal is two-fold, with the primary function serving to align with the OSHA regulations and secondarily to provide hazard communication for UConn Health staff, affected employees, end-users, and emergency responders.

**Primary Goal:** The primary goal of this program is to have a comprehensive system that identifies and tracks hazardous chemicals from point of delivery to end of use, with all pertinent data stored in a computer database.

**Secondary Goal:** To maintain an accurate chemical inventory which will allow emergency responders, public safety, EHS and other regulatory entities to respond to emergencies involving hazardous materials, thereby reducing risk to those responding.

**Note:** EH&S anticipates that the growth and breadth of the chemical inventory system shall coincide with the resources needed to implement, and will work towards developing a position dedicated to fulfilling this task and providing this critical regulatory service, site-wide.

## RESPONSIBILITIES

### **Note for Non-Research Areas:**

The Area Manager or Department Supervisor is responsible for ensuring that their employees receive proper EH&S training relative to the chemicals in use and the hazards they present. Workplace Hazard Assessments for making a PPE determination must be performed and documented. EH&S can aid in these efforts. Outside of research or laboratories, the workspace should be evaluated by EH&S for safe use of the chemical intended for use.

### **Note for Research Only:**

For those working in research, you are mandated under OSHA's Laboratory Standard 29 CFR 1910.1450 to have a Chemical Hygiene Plan (CHP) in place and implemented/reviewed. The CHP will provide guidance on creating Lab Specific Operating Procedures (LSOPs), choosing the correct PPE, fume hood usage, chemical hygiene safety, chemical compatibility and storage requirements etc. EH&S can also provide guidance in these areas as well.

### **Environmental Health & Safety Responsibilities**

EH&S is responsible for identifying, bar coding, encoding data and delivery of hazardous chemicals to the end users. The Vertere database is maintained solely by EH&S. EH&S shall train all involved Receiving Department staff on function specific DOT HAZMAT requirements and OSHA HAZCOM/GHS requirements.

EH&S is responsible for determining fire code compliance as it related to the allowable quantities of flammable liquids per control area/laboratory based on NFPA 45/IBC307standards. Locations identified as having exceeded their flammable quantity allotment will be referred to the respective Department Head with unresolved issues elevated to senior management (Dean, AVP Research Compliance).

### **Receiving Department Responsibilities**

The Receiving Department is responsible for identifying and segregating incoming packages that have a DOT label or marking on the outer package. At 400 Farmington Avenue, DOT labeled packages will be segregated for EH&S processing. EH&S staff will sign for the receipt of all packages delivered by the Receiving Department, and final delivery will be the direct responsibility of EH&S. The Receiving Department may at any time, develop supplemental procedures for identifying incoming packages containing chemicals.

**Note:** There is no de minimus for capturing and identifying qualifying chemicals by volume/size. The hazardous chemical which is subject to Hazard Communication, and defined by OSHA as a chemical having >1% of a hazardous substance and or >0.1% of a carcinogen, requiring a Safety Data Sheet (SDS), qualifies for inclusion into Vertere.

### **Principal Investigators and Medical Staff Responsibilities**

Principal investigators and medical staff are responsible for verifying that a package is delivered to the correct location as indicated on the package delivery sheet attached to each package. If there are any corrections, EH & S must be notified. If a bar coded container is moved to another location and/or the container is empty, EH & S must be contacted to update the database. Principal Investigators and/or Medical Staff working in areas with “high hazard” storage rooms must bar code secondary containers that are filled from stock containers stored in a high hazard room. This information must be provided to EH&S.

**Safety Note:** If you transfer a hazardous chemical from its original container to an unlabeled container, then you must affix a GHS transfer label to the secondary container, and transfer the hazard information. Please contact EH&S for these GHS transfer labels and guidance on this process.

## PROCEDURES

Packages identified at the 400 Farmington Avenue receiving area will be stored temporarily until such time Environmental Health and Safety staff can visit the area. If necessary, Receiving Department staff can deliver the package to its final destination. However, a log indicating delivery location must be completed to allow EH & S staff to locate these items at a later date and to enter the information into the database and to apply the barcode. The goal of the program is to deliver packages the same day that they are received. Therefore, there will be no planned overnight or long term storage of these packages within the receiving areas unless there are infrequent extenuating circumstances that would prevent a same day delivery. Packages that contain “dry ice” or other cooling material (ice) will be delivered as usual by the receiving department and not be bar coded.

Once identified packages are processed by EH&S, a bar code will be prepared for each individual container and the name of the chemical, the principal investigator/medical staff member, the received date will be printed on the bar code and entered into the University wide inventory program known as Vertere. A bar coded container will also have a “red ball sticker” placed on the container above the product label to simplify the process of identifying bar coded containers located in the laboratories. An instruction sheet will be affixed to each package informing the recipient of the intended lab number for delivery. This notice will instruct the investigator/clinical staff member to notify EH&S if the location or investigator is not correct, if the container is moved in the future and when the container is empty. Once the container is empty, the investigator must contact EH&S and provide the bar code number. Container volumes will be tracked as either “empty” or “full”. Partial volumes will not be entered into the software as the contents of an individual container are withdrawn.

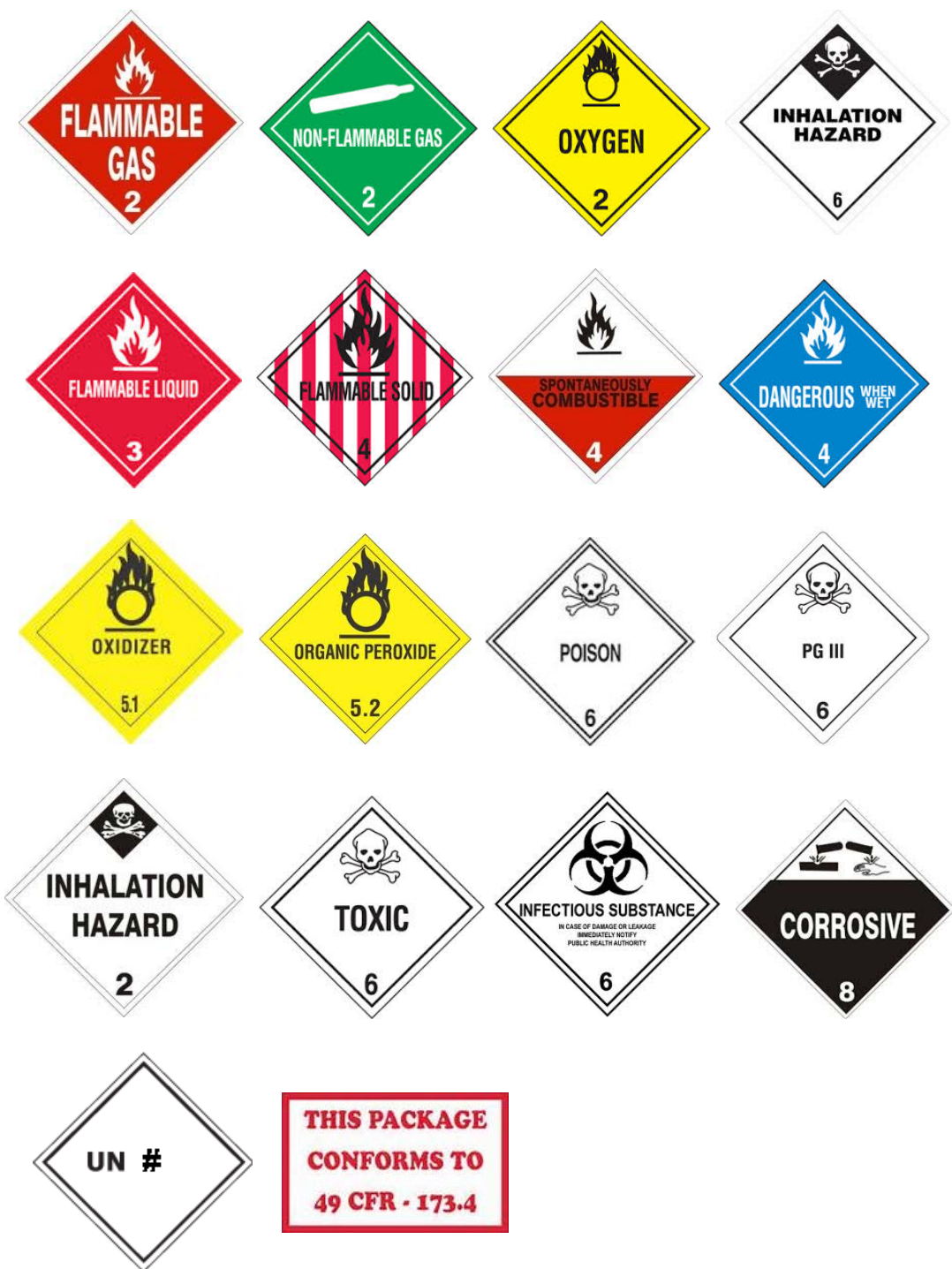
EH&S staff then delivers the package to the address indicated on the paperwork. EH&S will establish a similar procedure for materials delivered to 400 Farmington Avenue.

Certain research areas will have high hazard storage rooms for common use by the research staff. Incoming flammable chemicals will be delivered to these rooms by EH&S. Each investigator using one of these areas will be responsible for bar coding any secondary containers generated and informing EH & S of the location to which the chemical and volume taken. A container delivered to a high hazard room must remain there unless EH&S is notified of its new location.

### Receiving

1. Incoming chemicals will be identified by the Receiving Department when they are delivered to the UConn Health Receiving Area located at the West Dock. Receiving staff will determine if a DOT label or other required information is present on the outer packaging.
  - a. Packages identified as hazardous chemicals will be segregated and placed on a pre-identified shelf for pick-up by EH&S staff twice daily, both at West Receiving Dock and Building 400.
  - b. EH&S shall provide training to receiving staff that will be involved in the identification and handling of these items.

2. When a package is delivered to West Dock (or 400 Farmington Ave receiving) it shall be examined for the presence of a “diamond” label indicating the physical property of the chemical inside.
  - a. For “**Limited Quantity**” of material the name of the chemical is written on the outside of the package if a white diamond label is not used.
  - b. A package containing a small quantity of a chemical will have a statement on the package “This package conforms to 49 CFR 173.4”.
  
3. At the present time, compressed gas cylinders are excluded from this policy.



Limited Quantity

Small Quantity

4. Packages containing dry ice or ice must be delivered by Receiving directly to the end user regardless of the labeling on the package. A package containing dry ice (solid carbon dioxide) will have the following label affixed to the outside of the package.

Shipper's Declaration not Required.  
Part B is required  
Dry Ice amount must be in kilograms.  
Note: 2.2 lbs. = 1kg.

Airwaybills/airbills must have the following:  
1. "Dangerous Goods - Shipper's Declaration not Required."  
2. Dry Ice; 9; UN 1845;  
3. \_\_\_\_\_ x \_\_\_\_\_ Kg 004 III

Dry Ice \_\_\_\_\_ kg.

UN 1845

Shipper's Name and Address  
\_\_\_\_\_  
\_\_\_\_\_

Consignee Name and Address  
\_\_\_\_\_  
\_\_\_\_\_

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5. Packages delivered to 400 Farmington Avenue must be temporarily stored until EH&S staff are available to bar code and deliver them.
- Receiving room personnel at 400 Farmington Avenue must call EH&S (x2723) when such packages are received.
  - The package maybe delivered if timing is critical but a log of delivered packages must be kept and available to EH&S staff in order to locate the item at a later date to enter the chemical information into the database and to apply the barcode.

### **Environmental Health and Safety**

- EH&S receives notice from Receiving that there are hazardous chemicals for processing. Each package will be inspected by EH&S for exterior damage, placed in a laboratory fume hood, should damage or leaking be determined from the visual inspection.
  - EH&S staff shall don protective gloves to avoid being cut by the package opening tool.
  - Damaged non-returnable items must be documented and reported to Receiving, EHS&S Leadership and then processed as a waste item.
  - Items deemed acceptable for distribution are processed in the EH&S laboratory, entered into the Vertere system and provided a printed bar code and identification label.
  - The bar code is affixed to the inner container and a label is generated with the Principal Investigator/Medical Staff member, the lab number of delivery, the name of the chemical and the quantity being entered into the database.
  - In addition, a circular red sticker will be placed above the product label of each bar coded container. This will assist in identifying previously bar coded containers being stored in laboratory areas during the audit process.
  - The container will be resealed and the following notice affixed to the outer packaging.

## NOTICE

The chemical container within this package has been barcoded in order to track its location. This container has been assigned to:

**Lab  
Number:** \_\_\_\_\_

Barcode

If any of the information entered above is incorrect contact Environmental Health & Safety at x2723 or email the correction with bar code number ([sasso@uchc.edu](mailto:sasso@uchc.edu)).

When this container is empty, being discarded as chemical waste or its location changes, contact Environmental Health & Safety and provide the bar code number and status of container. This may be done by phone (x2723), email ([sasso@uchc.edu](mailto:sasso@uchc.edu)) or at the time of a chemical waste pickup.

Thank you for your cooperation.

2. EH&S will deliver bar coded containers twice daily.
3. EH&S will follow similar procedures for 400 Farmington Avenue and for deliveries to the Dermatology Building located at South Road with the exception that only one delivery per day is scheduled.
4. EH&S may, as staffing levels permit, visit labs and inventory significant quantities of on-hand chemicals.
5. As experience is gained with the Vertere inventory system, EH&S may offer training sessions for Investigators on the use of the software package.

### **Principal Investigators, Hospital and Lab Staff**

A primary consideration in the implementation of this program is to minimize the effort required by the individuals receiving and using the chemicals. To this end, UConn Health staff receiving bar coded chemicals need only contact EH&S when a container is empty, its location is changed or it is discarded and provide the bar code number.

1. Upon receiving a container that has been bar coded verify the Investigator name and lab number in which the container will be stored.
2. If information is correct, no action is required. If an error is detected call (x2723) or email ([sasso@uchc.edu](mailto:sasso@uchc.edu)) at EH&S and provide corrected information.
3. When a container is empty or partially full and determined to be waste, EH&S will need to be notified. You must provide the bar code number to EH&S. This may be done in several ways. You may call x2723, send an email to [sasso@uchc.edu](mailto:sasso@uchc.edu) with the bar code number or include the container as part of a chemical waste

pickup. In order to expedite identification of containers that have been bar coded, a red circular sticker is located above the product label of every bar coded container to assist in identification of these containers.

4. Certain locations within UConn Health have been renovated (due to fire code requirements) to include high hazard storage rooms. These rooms are for storage of larger quantities of chemicals.
  - a. It is required that smaller volumes of chemicals be decanted from the containers located in the high hazard/chemical storage rooms and taken to the lab.
    - i. Transfer the hazardous chemicals in your respective fume hoods and then return the larger unintended containers back to the chemical storage rooms.
    - ii. Remember that a GHS transfer with the original container's hazard information, is now required on the transfer container which you poured into along with the Vertere bar code.
    - iii. These secondary containers will need to be bar coded by the Investigator or staff member
    - iv. EH&S will need to be notified and will provide bar code labels for these secondary containers.
  - b. Reusing the same secondary container will minimize the effort for each investigator. If a secondary container is empty and is not to be used again, EH&S will need to be provided the bar code number (as above).
5. Investigators and/or Hospital staff wishing to perform an inventory of the on hand chemicals in their areas should call EH&S for guidance and for obtaining bar code labels.

## **Approvals**

The following individuals have read and approve this policy.

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Steven Jacobs, Director  
Environmental Health and Safety