



# Hazardous Chemical Inventory Management

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|------------------------------|-------------------------------------------------|
| <b>Policy Number</b>         | 3-131                                           |
| <b>Responsible Authority</b> | Director, Environmental, Health and Safety      |
| <b>Initiating Authority</b>  | Vice President for Compliance, Ethics, and Risk |
| <b>Effective Date</b>        | 7/18/2025                                       |
| <b>Date of Origin</b>        | 7/18/2025                                       |

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## APPLICABILITY/ACCOUNTABILITY

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This policy applies to all faculty, staff, students, visiting scholars, volunteers, and affiliates who procure, use, or store hazardous materials, and is applicable to all UCF owned, operated, or leased spaces.

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## BACKGROUND

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The definitions and procedures described are to ensure that departments, Principal Investigators (PI), laboratory personnel, shop workers, and personnel that utilize hazardous material in their work understand the responsibility that they have to provide an accurate and up-to-date chemical inventory.

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## POLICY STATEMENT

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The University of Central Florida follows a conservative approach in the handling of all hazardous materials and resulting hazardous waste byproducts on campus. University departments and individuals must comply with environmental laws and regulations, best safety practices, and Environmental Health and Safety (EHS) policies and procedures to reduce risk to individuals, university property, and the environment. Individuals who use hazardous materials are responsible for proper acquisition, procurement, use, storage, security, record-keeping, and disposal in compliance with applicable federal, state, local, and university requirements.

Users of hazardous chemicals are responsible for ensuring that their chemical inventory contains an accurate record of all acquisition and consumption of chemicals defined as

hazardous by UCF, local, state, or federal guidelines. EHS will offer support, maintain a centralized database in which the chemical inventory is recorded, and periodically verify that the inventory is accurate.

The chemical inventory must be entered into the centralized database and confirmation provided every six (6) months that the inventory is correct. Maintenance areas, studios, and workshops are responsible for maintaining an accurate chemical inventory for locations and must supply that information to EHS.

Legal requirements imposed by local, state, and federal hazardous material agencies require that records are kept, listing the quantities of hazardous materials used and on hand. These records are subject to audit on demand, with no advance notice. Fines and penalties from local, state, and federal agencies can be assessed for failing to meet these requirements. Failure to comply with this policy may result in suspension of procurement and use of hazardous chemicals.

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## DEFINITIONS

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**Commercially available.** Products for sale to the general public.

**EHSA.** Centralized database in which the chemical inventory is recorded, Environmental Health & Safety Assistant, On Site Systems, Inc.

**Hazardous Chemical.** Any substance or mixture that can cause a physical or health hazard or pose harm to the environment. This includes but is not limited to: materials with a National Fire Protection Association (NFPA) rating of 2 or higher for Health, Flammability, and/or Reactivity; any chemical or mixture for which OSHA requires the Safety Data Sheet (SDS) to be on hand and available to workers; and any chemical labeled with Global Harmonization System of Classification and Labeling of Chemicals (GHS) Hazard Symbols.

**Hazardous Materials.** Any item or agent (biological, chemical, radiological, physical) that has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.

**Primary container.** A vendor- or manufacturer-supplied container (or direct replacement of that container).

**Physical inventory.** The acts of visually inspecting a container's location and quantity.

**Secondary container.** A container other than the vendor/manufacture-supplied container.

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## GENERAL POLICY

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A departmental employee knowledgeable of the work within the department, laboratory, or shop is responsible for confirming that the chemical inventory provided to EHS is accurate and current.

Any chemical with Global Harmonization System of Classification and Labeling of Chemicals (GHS) Hazard Symbols on the label or recorded within the Safety Data Sheet (SDS), formerly MSDS or Material Safety Data Sheet, or with a National Fire Protection Association (NFPA) hazard rating of two or higher in any category, must be included in the chemical inventory. All chemicals and mixtures that are considered hazardous (i.e., corrosive, acutely toxic, reproductive toxins, flammable, etc.), and requiring an SDS be kept on hand according to OSHA (29 CFR Part 1910), or have ingredients which appear on the Department of Homeland Security Chemicals of Interest list (6 CFR Part 27 Appendix A), must be included in the chemical inventory. Non-hazardous chemicals may be included for tracking by the department, but it is not a requirement.

Commercially available cleaning products (used in a manner and frequency equivalent to household consumer use), stock solutions, and samples that have been prepared from an inventoried parent container, biologically hazardous materials, radioactive materials, and non-hazardous chemical products are excluded from the chemical inventory. Biologically hazardous and radioactive materials are covered under other guidelines and must follow the record-keeping requirements for those materials.

The chemical inventory database provides for appropriate reporting and compliance with statutory and regulatory requirements covering the procurement, use and storage of hazardous materials.

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## PROCEDURES

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### I. Maintenance Area, Studio, and Workshop Inventory Procedure

All chemicals and mixtures that are considered hazardous (i.e., corrosive, acutely toxic reproductive toxins, flammable, etc.), and therefore requiring an SDS be kept on hand in accordance with OSHA (29 CFR Part 1910), must be included in the chemical inventory for that location. Similarly, any chemical that is labeled with GHS symbols or has a NFPA hazard rating of 2 or higher in any category must be included in the chemical inventory.

Each location must maintain a spreadsheet of the following information ([fillable form link](#)):

- Item/Chemical Name;
- Manufacturer Name;
- Product Code, if available;
- Maximum Quantity on Hand (total count and container size);
- Type of container;
- Building;
- Room Number(s) (storage location);
- Whether the Item is Still in Use  
(Note: if no longer in use, the date when the item was removed from the premises must be provided as the inventory is updated);
- Availability of the SDS;
- Comments/Descriptions (typically the item's intended use)  
(Note: If a new chemical is received during the calendar year, the date that the item was received must be recorded.)

## **II. Teaching and Research Laboratory Inventory Procedure**

All primary (vendor-supplied) containers of chemicals and mixtures must have a UCF bar code and be entered into the main UCF chemical inventory database if:

- a GHS symbol is on the label, included in the SDS, or the material has a NFPA rating of 2 or higher in any category.

For all hazardous materials received after 2015, GHS hazard symbols are required on the label and in Section 2 of the SDS. The NFPA rating may be found on the SDS supplied by the vendor.

- Addition: Hazardous chemicals need to be added to the system as soon as they are received, but no later than one (1) week from the day it was received.

Required fields: Chemical name; supplier; product number; size of container; unit of measure; container type; and physical state.

- Disposal: Items that have been consumed or are considered waste by the researcher (in addition to following the UCF Laboratory Environmental Management Procedures, EMS-WP-001) must be marked as "disposed" in the database within the month that they are consumed or prior to being picked up as waste. It is the PI's responsibility to maintain an accurate chemical inventory in the UCF database.
- Relocation: Items that are being relocated must be transferred in the chemical inventory if they will be stored in the new location overnight. Chemicals must only be relocated to another approved chemical storage space.

Research groups may choose to keep track of all chemicals (including those in non-manufacturer/secondary containers) and their lot numbers using the UCF maintained

database, but this is not required. All containers with UCF bar codes affixed must be entered into the chemical inventory database.

- UCF Bar Code Generation: Bar codes will be supplied by EHS. Requests can be made by contacting EHS at 407-823-6300, or by sending an email via the "[bar code labels](#)" link.

If a research group will be generating its own bar codes (inventory numbers), rather than using numbers supplied by EHS, a unique prefix or suffix must be requested from the Chemical Safety Officer. This assigned prefix or suffix must then be incorporated into the scannable bar code affixed to the inventoried chemicals.

- Placement of the Bar Code: A single bar code must be placed on each container. Do not conceal any of the information on the container's label, including the vendor's name, warnings, and hazards. Horizontal placement (parallel to the shelf) is preferred, but vertical placement may be the only option on small bottles. If necessary, the sticker may be trimmed down, but the number and bar code must be left intact. Place the bar code on a flat or slightly curved face of the container. On "squared" containers, do not place the bar code "around a corner."
- Secondary and Tertiary Locations: It may be helpful when trying to locate items within a large research group or laboratory to designate secondary and tertiary locations (e.g., shelf A; shelf B, tray 1; refrigerator 1, tray 1.)

These locations can be recorded in the EHS-maintained database, Environmental Health & Safety Assistant (EHSA), in the field "Storage\_ Location."

## **II. A. Gas Cylinder and Cryogenic Dewar Inventory Procedure**

- Required information:

Chemical name; supplier; product number; mass of gas (or cubic feet) in tank as received; and physical state.

Lecture bottles and other small canisters require bar codes to be affixed and shall be included in the chemical inventory. Gas cylinders or cryogenic dewars which are refilled by a vendor are required to be recorded in the chemical inventory. Refillable vessels, frequently returned to vendors, shall have bar codes 1) recorded in the UCF Laboratory Safety Notebook, 2) posted within the laboratory, or 3) on cylinder hang tags (do not affix bar codes to the metal cylinder).

If personnel have difficulty determining the mass or cubic feet of gas, they should supply the Chemical Safety Officer with the vendor, product number, and size of the cylinder.

It is the responsibility of the researcher (or designee) to update the database and inform EHS when gases will no longer be used or are moved to another location.

## **II. B. Tax Free Alcohol (Ethanol 190-proof or higher) Inventory Procedure**

Because UCF holds an industrial use permit for tax-free alcohol, each primary point of distribution (whoever ordered the alcohol) shall file inventory with EHS every six (6) months (27 CFR Part 22.162). EHS recommends that the departmental employee responsible for confirming that the chemical inventory provided to EHS is accurate and current, conducts a physical inventory of tax-free alcohol at the end of each month. Forms and additional information can be found at <http://www.ehs.ucf.edu/tax-free-alcohol>.

In addition, because ethanol is flammable and has an NFPA rating of 2 or higher (both health and flammability), ethanol must be bar coded and tracked within the chemical inventory. Again, EHS recommends that the amounts of these inventory items are verified and updated at the end of each month within the centralized database.

## **III. Lead-Acid Battery Inventory Procedure**

When lead-acid batteries are used by a department in non- U.S. Department of Transportation (DOT) registered vehicles, (i.e., forklifts, gators, golf carts, etc.), generators, or large banks of batteries, (server UPS systems), the department must report the overnight location of the equipment/battery, the number of batteries, and the weight of each battery. If the percentage of the individual components are known (through the manufacturer-supplied SDS), that information should be included in the report.

Each department must maintain a spreadsheet of the following information ([fillable form link](#)):

- Number of batteries on hand;
- Weight of each battery;
- Overnight location of the equipment/battery (building and room number, if applicable);
- Percentage of individual chemical components (if known);
- If the item is still in use;

(Note: if no longer in use, the date when the item was removed from the premises must be noted.)

As batteries are added during the calendar year, through the acquisition of new vehicles or UPS, the date that the batteries were received must be noted.

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## **RELATED RESOURCES or DOCUMENTS**

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[City of Orlando Industrial Waste Pretreatment Program \(Chapter 30\)](#) (See 30.03.9.i and 30.03.10.h)

[Florida Emergency Planning and Community Right-to-Know Act of 1988, Chapter 252, Part II](#)

[Chapter 552, Florida Statutes](#)  
[6 CFR Part 27](#)

[40 CFR Part 68.130](#)

[Emergency Planning and Community Right-to-Know Act EPCRA \(Title III\), Subtitle B](#)

[27 CFR Part 22.162](#)

[29 CFR Part 1910](#) (See Subparts H (1910.101-126: Hazardous Materials) and Z (1910.1000-1450: Toxic and Hazardous Substances))

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## CONTACTS

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| POLICY APPROVAL<br>(For use by the Office of the President)                                                                                                           |                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Policy Number: 3-131                                                                                                                                                  |                        |
| <br>Initiating Authority and University Policies and<br>Procedures Committee Chair | Date: <u>7/17/2025</u> |
| <br>President or Designee                                                          | Date: <u>7/18/2025</u> |