

CHEMICAL INVENTORY PROGRAM DOCUMENT - EXTERNAL

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INTRODUCTION

Hazardous materials, which include chemicals, are used for research, academic, and facility maintenance purposes at the University of California, Riverside (UCR). An accurate chemical inventory is required to comply with applicable state and federal laws. These laws are written for the safety of employees, the community, and emergency responders.

OBJECTIVES

The objectives of this program include, but are not limited to:

- Provide chemical owners and users with knowledge and tools to keep an accurate inventory of all hazardous chemical containers
- Provide university leadership with reports on chemical locations across campus
- Assist UCR Fire & Life Safety with ensuring the campus meets all applicable fire codes
- Report information as required by state and federal regulations

SCOPE

This program covers all hazardous chemical storage in laboratory and technical areas. It includes areas located in buildings owned and occupied by UCR. Excluded chemicals include but are not limited to alcohol-based hand sanitizers in wall-mounted dispensers, fuel in vehicles or motorized equipment, and gaseous fuels in piping systems and fixed appliances.

RESPONSIBILITIES

Environmental Health and Safety (EH&S) (Typically Chemical Admin)

The Chemical Inventory Specialist is responsible for the management of the campus' chemical inventory and for the generation of reports based on the inventory data. EH&S will provide training on the use of *RSS Chemicals*.

Principal Investigator (PI), Faculty or other Supervisor (Typically Inventory Owner)

The PI/supervisor is responsible for ensuring chemical inventory is maintained and current. The PI/supervisor may delegate the upkeep of the inventory on a day-to-day basis, however the PI/supervisor must certify their inventory is accurate and up to date annually.

Personnel Who Handle Hazardous Chemicals (Typically Inventory User and Sometimes Inventory Manager)

For purposes of this program, this is any individual who actively performs work functions with hazardous chemicals or equipment in a laboratory/technical area. This includes any faculty, staff, student volunteer assisting in a non-academic class, or visitor/visiting scholar. Personnel are responsible for the following:

- Being familiar with hazardous chemicals in the work area whether they work directly with them or not
- Update the inventory on a day-to-day basis in between EH&S-led inventory updates

ACCESS AND ROLES

Access to RSS Chemicals is not automatic. It is granted by the group's owner or delegate through [Profile Group](#) and updating a group member's access to include "Chemical Inventory". is not automatic. It is granted by the group's owner or delegate through [Profile Group](#) and updating a group member's access to include "Chemical Inventory".

Group member(s) that oversee the annual certification of the chemical inventory should be given the role of "Inventory Manager". [RSS Chemicals Inventory Roles & Permissions](#) details what actions the Inventory Owner, Inventory Manager, and Inventory User are permitted to do.

NEW INVENTORIES

New groups should request EH&S assistance with the creation of new chemical inventories. The Chemical Inventory Specialist will assist the group with setting up the inventory and provide information on the campus chemical inventory requirements. Additional barcodes can be requested from the [EH&S website](#) or by contacting ehslaboratory@ucr.edu.

INVENTORY MANAGEMENT

Inventories should be updated on a day-to-day basis as new containers are received and containers are removed. New personnel can request training from ehslaboratory@ucr.edu.

INVENTORY CERTIFICATION

Inventory certification must be done annually. The Inventory Owner(s) and Manager(s) should ensure all the containers in their space have *RSS Chemicals* barcodes and that their group members have been removing containers from the inventory as they are removed. The inventory certification button can be found in the top right section of the "Inventory Summary" page in *RSS Chemicals*. The EH&S chemical inventory team supports annual inventory certification by monitoring certification rates and scheduling appointments to update the online chemical inventory.

RELATED REGULATIONS

- Hazard Communication Standard from Cal/OSHA 8CCR5194(e)(1)(A)
- Emergency Planning and Community Right-to-Know Act (EPCRA)

- California Health Safety Code Chapter 6.95 Section 25505, 25506, and 25508
- Hazardous Materials Inventory Reporting Requirements Title 19 Section 2652 California Fire Code
- Air Quality Management Mandated Toxic Air Contaminant Emissions
- California Fire Code and California Building Code Maximum Allowable Quantities
- Cal/OSHA Carcinogen Report of Use Requirements Cal/OSHA 8CCR5203
- US EPA's Toxic Release Inventory (TRI)

DEFINITIONS

Annually – Every twelve months.

Certification – Reviewing the chemical inventory in its entirety and finding it accurate in the moment of review.

Hazardous material - Any material which is a potential/actual physical or health hazard to humans. These are identified through the California Fire Code (CFC), through the Occupational Safety and Health Administration (OSHA), and through the U.S. Department of Transportation (DOT) to ensure the safe storage, handling and use, and transportation of hazardous materials.

Laboratory/Technical Area - a location where the use or storage of hazardous materials occurs or where equipment may present a physical or chemical hazard. It includes, but is not limited to:

- Research laboratories, including but not limited to, greenhouses, insectaries and quarantine facilities
- Teaching laboratories
- QA/QC and analytical laboratories
- Stock rooms
- Storage rooms
- Waste accumulation areas/locations
- Cold rooms
- Machine and other workshops
- Vivaria
- Visual/performing arts studios and shops
- Computational laboratories

RESOURCES

Resource Name and Link	Use it for...
EH&S Chemical Inventory Webpage	Finding information specific to the UCR EH&S Chemical Inventory Program
Risk & Safety Solutions RSS Chemicals Webpage	Learning how to use RSS Chemicals in written and audio/visual format
Risk & Safety Solutions FAQ Webpage	Reading set-by-step instructions in a written question and answer format

Frequently Asked Questions

- Why barcode containers?
 - a. Barcoding allows for the unique identification of each container. This helps with tracking a container's age and its transfer from one group to another.
 - b. It significantly improves the speed and accuracy of reconciliation.
 - c. In cases where a chemical container is found, the system can identify who owns the container through the barcode.
- Why barcode storage locations?
 - a. Barcoding allows for the unique identification of each storage location. This helps with distinguishing which cabinet, refrigerator, shelf, etc. that a container is in/on.
 - b. Additionally, storage location barcodes are attached to a specific inventory owner, so in cases where a location is affected, communications can be sent to the inventory owners and managers.
 - c. Barcoding increases the speed and accuracy for adding containers and for reconciling the inventory.
- How do I get more barcodes?
 - a. Email ehslaboratory@ucr.edu with the following information:
 1. Where they should be delivered: building and room number
 2. What size: 1 inch square (standard) or 0.5 inch square? 0.5 inch square barcodes are useful for containers less than or equal to 1 gram or 20 milliliters
- Do the barcodes scan on curved surfaces?
 - a. Yes. The barcode format and size have been chosen specifically for scanning on chemical containers of every size, shape, and material.
- Does the system support sharing?
 - a. Yes, this is known as "Checkout" and can be done in two ways. One way is to add colleagues. Inventory Owners and Managers can add colleagues through [RSS Chemicals](#) > Inventory Summary > Inventory Access & Permissions > Colleagues. Adding a colleague sends a request to them that they must accept. Once established, this relationship allows researchers to search for chemicals within their colleagues' inventories and to checkout specific containers.
 - b. Another way is to send a campus request. This sends a mass message to all inventory owners and managers that have the desired chemical in their inventory through the [RSS Chemicals](#) system. To send a campus request, go to [RSS Chemicals](#) > Search Chemicals > Change the field next to "Keyword" from "Inventory" to "Campus" > Search for the chemical > Click on the chemical name you want to request > Complete the "Request" section.



- Are the barcodes chemical resistant?
 - a. Yes. The barcodes have been chosen specifically for use in a chemical environment.
- Can certain chemicals be marked as not shareable so friend labs cannot see them when searching?
 - a. Yes. A container can be marked as private which prevents view of that chemical by any colleague.
- Is *RSS Chemicals* available as a mobile application?
 - a. Yes. *RSS Chemicals* is available as a mobile application for iOS and Android devices and also as a web-based application.
- Does the app provide substructure searching?
 - a. Substructure searching is available on the web-based application. Select **Search Chemicals**, then select the **Substructure** tab.
- The chemical information is incorrect. How do I correct this?
 - a. If chemical information is incorrect, users can report an issue on the web-based application. Select the **menu icon** in the upper right-hand corner of the chemical detail page and select **Report A Problem**.
- How do I add/delete members for my lab?
 - a. Members of your lab can be managed through [Profile Group](#). PIs can also designate a Delegate who can manage users and create groups on behalf of the PI.
- I have a new building or room for my lab, how do I add this?
 - a. A PI or Delegate can manage locations for through [Profile Group](#). Select the **Locations** tab for your group and select the **+** button to add a buildings/rooms. Be sure to mark the checkbox next to “Chemical Inventory”.
 - b. After adding the location to your Profile Group, you will need to create a sublocation in *RSS Chemicals* before you will be able to add chemicals to that location.
- How do I correct a chemical that was incorrectly added to my inventory? Do I need to delete the chemical and add a new one?
 - a. The **Reassign** feature allows you to update an existing chemical to the correct chemical.