UNIVERSITY OF HOUSTON-CLEAR LAKE
ENVIRONMENTAL, HEALTH AND SAFETY DEPARTMENT

Effective Date		Number
March 8, 2023		L 05

Subject		
Chemical Inventory		

Reference	Special Instructions	
25 TAC 295 Texas Hazard Communication Act, Workplace Chemical List	None	

Distribution	Reevaluation Date	No. Pages
Campus wide	3 years	7

I.   PURPOSE

There are a variety of chemical uses and hazards on campus, which must be safely managed. To assist with this, chemicals used on campus must be inventoried, as required by the Texas Hazard Communication Act and other agency requirements or reports.

Chemical Inventories serve several functions, including but not limited to the following:

- To know what materials are present and assess their hazards for controls, safe handling and storage procedures
- A list of Safety Data Sheets (SDS) needing obtained
- A storage location for SDS's, for users to review hazards before experiments, emergency planning and first aid purposes
- Use for several agency reports (e.g., DEA, TCEQ, DSHS)
- Allow faculty to share or dispose of items, to reduce ordering in excess

This policy overviews the regulatory requirement, and procedure / information on completion.

II.   POLICY

All stock chemicals stored and used in laboratories at the University of Houston-Clear Lake (UHCL) shall be recorded, monitored and accounted for, as required by various environmental, health, and safety regulations illustrated below in the "Chemical Inventory Data" graphic.

The Chemical Inventory Template will be used to electronically record chemicals on campus, for upload into a chemical inventory system administered by the EHS Department.

Inventories are required to be conducted or recertified as needed, but at least annually per the Texas Hazard Communication act, similar to OSHA's 29 CFR 1910.1020 Access to employee exposure and medical records. Chemical inventories are linked with SDS in Hazard Communication regulations. Both are required for all chemicals and must be retained 30 years.
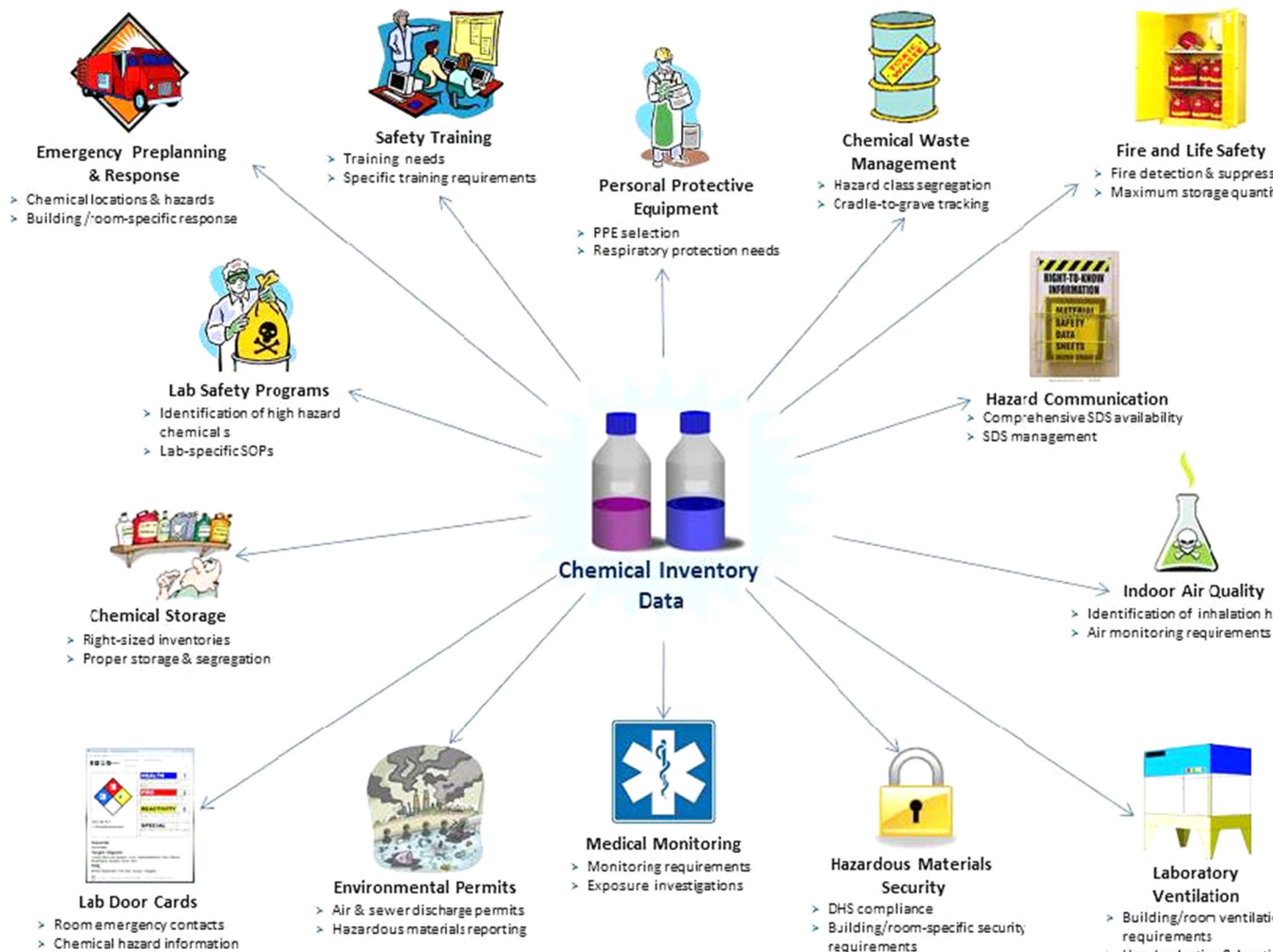
"Chemical Inventory Data" diagram by University of Nevada – Reno

III.   DEFINITIONS

A. **PI Code** – PI stands for "Principal Investigator", the responsible faculty person of a given laboratory. The PI Code in the chemical inventory template is the same as their Username login, or email prefix, and is caps sensitive.

B. **Last Name** – Last name of (PI) responsible faculty or department designee.

C. **First Name** – First name of (PI) responsible faculty or department designee.

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D. **Building Acronym** – Designated building acronyms are found in the Chemical Inventory Template, in the tab "Template Information". If the building acronym does not match, the room number will not appear (will not be uploaded into the software).

E. **Room Number** – A 4-digit room number that may contain letters and decimal places.

F. **Storage Location** – A description of the specific location within a room.

G. **Chemical Description / Name** – The chemical container label name from the manufacturer, or container(s) secondary solutions are prepared from. If it does not describe actual contents, then that information must be included somewhere in the inventory description, solution contents, or comments.

H. **Number of Containers** – Number of individual containers, for the Chemical Inventory Template. Enter one line for each container by putting "1" in this column until the software is updated to create multiple barcodes.

I. **Container Capacity** – The intended capacity in numerical form only (i.e. 0.1-1000).

J. **Container Unit of Measure** – The unit of measurement only (e.g. ml, L, g, kg).

K. **CAS Number** – A unique numerical identifier assigned by the Chemical Abstracts Service (CAS), typically found on the manufacturer's label.

L. **Lot #** – The batch or lot number provided by manufacturer.

M. **Catalog #** – Manufacturer catalog or product number for chemical ordering.

N. **Date Expiration** – The date of expiration as written on the container label from the manufacturer.

O. **Date Received** – The date the chemical was received and accounted for.

P. **Date Opened** – What date the container was first opened. This is necessary for air and water reactive (pyrophoric) materials, and peroxide forming, potentially explosive chemicals (PEC's).

Q. **Inventory User(s)** – Primarily to identify faculty user by the software, but can enter other faculty users sharing research and teaching labs as other points of contact. Secondary are their TA, RA and graduate assistants.

R. **Comments** – A place to list special storage requirements, and any other additional comments.

S. **EHS** – Environmental, Health and Safety Department

T. **EHSA** – Environmental Health and Safety Assistant, an online university website software by OnSite Systems

U. **SOP** – Standard Operating Procedure

IV. PROCEDURES

A. **Recording Data:**

    i) Chemical Inventories must be recorded at least annually by the responsible faculty / PI, or designee within their department.

    ii) Inventories may be initially handwritten on a printed version of the template if desired, but must be typed into the template to ensure information is legible and complete.

    iii) Some fields are required to be recorded, while others are optional (see below).

    iv) Explanations of fields are contained within the Template Information sheet, such as enter "share" (case sensitive) if the chemical is shared with other PI's or labs, or "Y" if it is a prepared/working solution, and the building acronyms.

    v) Due to the time it takes for completion, it is not reasonable to expect any one person to record chemical inventory for all labs on campus or in one building, and manage verification of all campus labs completion annually.

    vi) EHS can assist with software implementation, relay requirements, provide templates, information, and repository, but is not responsible for conducting lab inventories.

    vii) Each lab's Responsible PI is ultimately responsible for completion of their inventory.

B. **Download the most recent version of the Chemical Inventory Template** from the online EHSA software application, administered by the EHS Department.

    i) Link: https://onsite.uhcl.edu/EHSA/

    ii) Login using your UHCL credentials. It is the same as your UHCL username/email prefix with caps sensitive letters. For example: "SmithJ", and use your current password.

    iii) From the yellow icon selections on the top, click on the "Inventories" icon. Under the "Chemical Inventory" header, click on "Import Inventory By PI". On the top-right corner you will see a grey colored "Download Template" button – download the most recent version from here.

C. **Populate the template with one chemical in each row below the header**, following the Section III definitions or template information sheet/tab.

    i) Red colored fields in the UHCL Chemical Inventory Template are **required**.

    ii) Grey colored fields are optional, and highly recommended.

D. Once you have completed your excel spreadsheet:

i) Save it with filename including the building, room #, PI name, and the date(s) inventory were physically verified. For example: "Bayou 3520AA Pham Jan-Feb 2023.xlsx"

ii) Email file to the EHS Department, and Laboratory Supervisor or Technician.

iii) Upload file into the software:

(1) From the yellow icon selections on the top, click the "Inventories" icon.

(2) Under the "Chemical Inventory" header, click on "Import Inventory By PI".

(3) Click the down arrow on the PI field on the top left, and select your (PI) name.

(4) In the middle of the top section, click the green "Load Spreadsheet" button, and select the file on your computer.

(5) Scroll down to the bottom of the screen and click the green "Submit" button (may not be immediately visible due to monitor or browser size / resolution settings)

(6) The software will record the date entered along with user entering.

E. Notes for proper inventory uploading:

i) Enter "share" in lowercase if the chemical is shared with other PI's or labs, such as common stock, teaching lab chemicals, etc. If any variation in text or format is entered, the field will not populate and you will need to manually check the box on each line item.

ii) If the PI email/username prefix is entered differently than the SmithJ format, you will be given the option to choose the PI from list, and add all rows in the spreadsheet to that inventory (room).

iii) If the building acronym is entered differently than what is assigned on the Template Information tab, neither the building or room number will load. The most common building acronyms are "B" for Bayou, and "STEM".

iv) Enter "Y" for prepared /working solutions.

v) The software uses the Chemical name and CAS number entered to link to and populate chemical hazards and SDS. If this is not entered or linked correctly, search within the software for the SDS from the manufacturer to link it.

(1) If SDS is not available in the database, you can click the Not finding your SDS button at the top right of the SDS hub search screen. From there you can search two popular manufacturer's websites to find the current SDS with the most recent hazard information, then upload it to your chemical entry.

(2) Or you can enter information at the bottom to request it, and OnSite will search for it and upload.

(3) Significant hazards missing from the Hazard Statements field should be noted and entered as well. Enter this into the comments field, and contact EHS for assistance.

F. To avoid duplicate entries:

i) Only submit chemicals to your inventory once. You can check the date added / last modified before entering individual containers or uploading excel file.

ii) Each individual chemical container may have a unique barcode label.

G. Annual / Subsequent Updates

At least once each year, each room must have one of the following:

(1) A new chemical inventory may be entered / excel file uploaded in entirety; or

(2) Individual containers may be updated within the software throughout the year by adding new and deleting old.

(3) A statement that there were no changes

H. Archiving

Chemical Inventories must be kept for 30 years.

(1) <u>For entire room inventory files uploaded & replaced each year</u>:

(a) If the checkbox "**Replace PI's Existing Inventory for the Selected Permit**" is selected, the new spreadsheet of containers are added and **all previously entered containers are deleted in the software** for that room/PI.

(b) The software does **not** keep an archive record of prior containers uploaded if you check the "replace…" button while uploading. It is only a real-time or current (last) inventory.

(c) **The excel spreadsheets shall be submitted to EHS and saved** as annual chemical inventory records, and must be recorded (dated) annually.

(d) Coordinate with EHS to ensure excel/OnSite inventory is saved first, and prevent accidental deletion of records required to be retained for at least 30 years.

(2) <u>If only updates are made</u>:

(a) continue uploading files to add chemicals.

(b) Send additional excel file(s) to EHS, **noting these are additions**, and

(c) **save a report or Adobe file of the room inventory at least once a year.**

(3) <u>If there were no changes</u> to chemical inventory containers during the year:

(a) Complete the annual review statement of no change within the software,

(b) save it as a report or Adobe file, and

(c) Send to EHS.

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IV.   **APPROVAL**

AVP Facilities Management & Construction

Date: March 8, 2023

V.   **REVISION LOG**

Revision Number	Approval Date	Description of Changes
0	4/25/19	Formal policy created to detail how to populate the Chemical Inventory Template.
1	3/10/23	Updated with chemical inventory requirement, links, frequency, relation to SDS retention, updates to template, and archive information