



## STANDARD OPERATING PROCEDURE

### Periodic Physical Inventory of Chemicals

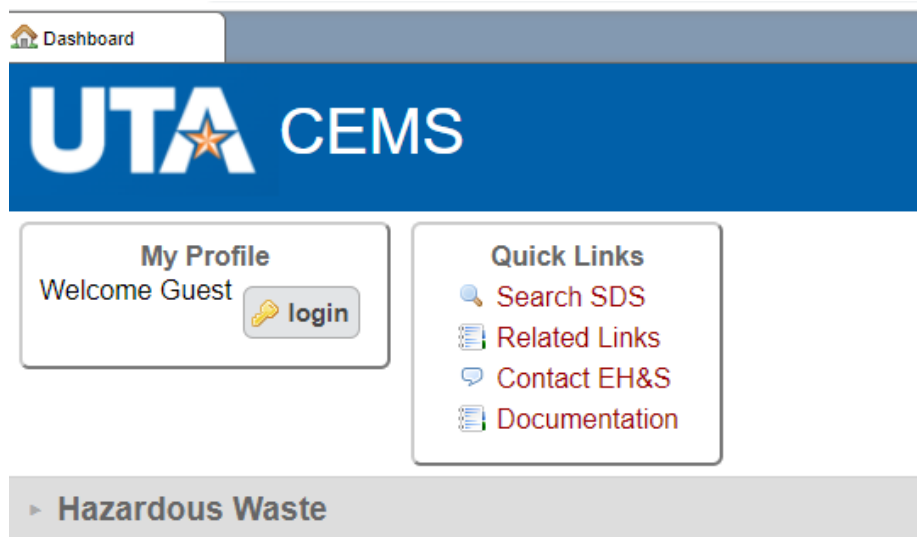
The purpose of this SOP is to guide CEMS PIs/Chemical Owners to conduct a periodic physical count of the chemical inventory in their respective labs/shops/stockrooms. At a minimum, an inventory must be conducted every twelve months.

Each periodic inventory must be reconciled to the CEMS inventory listing to determine accuracy. Any discrepancies must be reported to EH&S by submitting Form 8-102, [CEMS Inventory Discrepancy Form](#). CEMS training-refresher is mandatory for your laboratory group if the discrepancy of the periodic inventory is more than 3 percent.

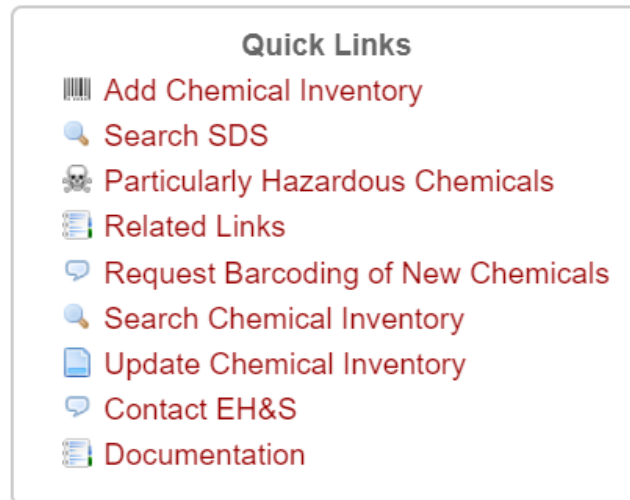
**Step 1:** Contact Chemistry Stockroom/CPB 110 at 817-272-3712 or 817-272-3741 to request a barcode scanner if needed.

**Step 2:** Go to Chemical Environmental Management System (CEMS) <http://cems.uta.edu>.

**Step 3:** Click on “login” in “My Profile” window:

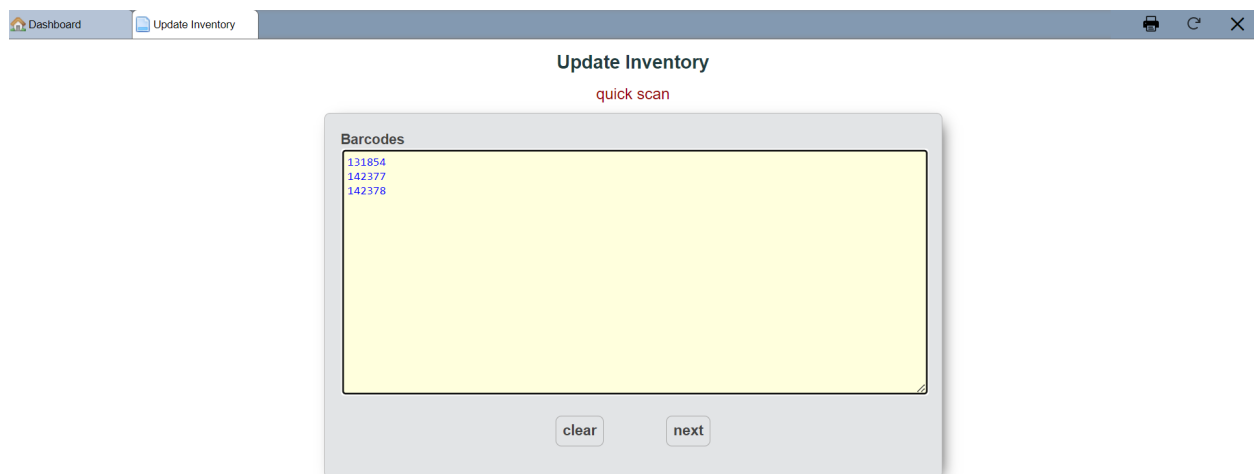


**Step 4:** On your CEMS Dashboard go to “Quick Links” window and click on “Update Chemical Inventory” link:



**Step 5:** Place the cursor into the window and enter no more than 10 barcodes, each separated by a new line, comma, or space. If using a barcode scanner, the barcodes will be separated automatically.

**Important**—enter only containers with the same **Sub-Location** (example: cabinet for flammables) at a time.



**Step 6:** Click on “next”. The screen below will appear.

## Update Inventory

**(3) barcodes found**

cancel

confirm

Issued	03/03/2011
Revised	02/02/2023

- **Set Owner**-window: start typing the Chemical Owner's name and choose from the given list of names. You can also choose from the drop-down list (see drop-down arrow) or search in the Database (see the box with two dots next to drop-down arrow).
- **Set Location**-window: start typing the number of the Room and choose from the given list of Locations. You can also choose from the drop-down list (see drop-down arrow) or search in the Database (see the box with two dots next to drop-down arrow).
- **Set Sub-Location**-window: type in the name of Sub-Location. Examples: shelf #1; shelf #2; refrigerator; freezer; cabinet for flammables; cabinet for corrosives.
- **Update Evaluation Date**-window: choose "yes" from the drop-down list.
- Choose "yes" or "no" from the drop-down lists of other update options, then scroll to the bottom of your screen and click on "confirm".

Then choose "OK":

cems.uta.edu says

Are you sure you want to update the chemical inventory listed above?

OK

Cancel

The following message will appear on top of the screen:

Dashboard
Chemical Inventory

Chemical inventory updated successfully. Updated records shown in report below.  
Continue with:

- New Chemical Inventory Search
- New Multiple Barcode Search

Chemical Inventory
(1 - 3) of 3 results

Filter: My Selected Barcodes

Barcode	Chemical Name	Owner	Building	Room	Sub-Location	Last Evaluation Date	Date Empty
131854	Oxygen 25% in Nitrogen, compressed	Rowlett, Elisabeth	Science Hall	301	cabinet for flammables	2022-02-04	
142377	Methane 2.5% VOL (50% LEL) in Air (20.9% Oxygen in Nitrogen), compressed	Rowlett, Elisabeth	Science Hall	301	cabinet for flammables	2022-02-04	
142378	Propane 0.3% VOL (14.28% LEL) in Air (20.9% Oxygen in Nitrogen), compressed	Rowlett, Elisabeth	Science Hall	301	cabinet for flammables	2022-02-04	

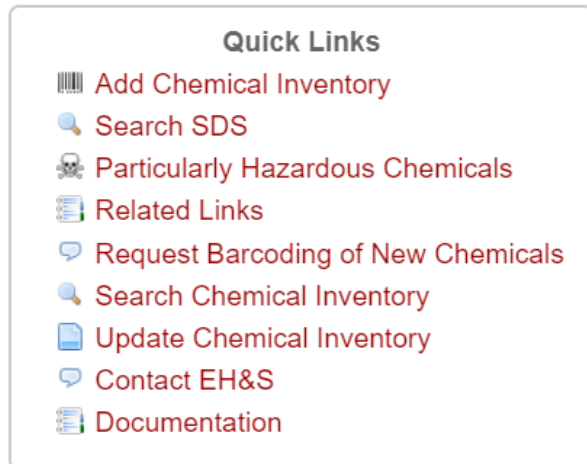
view All results per page

update records

**Step 8:** continue updating by choosing "New Chemical Inventory Search" to update a single container; or "New Multiple Barcode Search" to update multiple containers.

Issued 03/03/2011  
Revised 02/02/2023

**Step 9:** To get the list of not updated (missing) chemicals, load the chemical inventory by clicking on “Search Chemical Inventory” link in “Quick Links” window:



**Step 10:** Choose the name of the Owner and click on “search”:

The 'Search Inventory' form includes the following fields and options:

- Barcode:** Text input field with a red link 'search multiple barcodes'.
- Chemical Name:** Text input field with an 'exact match' checkbox.
- Product Number:** Text input field.
- Owner:** Dropdown menu with 'Elisabeth Rowlett' selected and a search icon.
- Location:** Text input field with 'building room number' and a search icon.
- Molecular Formula:** Text input field.
- CAS:** Text input field.
- Manufacturer:** Text input field with a search icon.
- Buttons:** 'only search surplus' checkbox and a 'search' button.

**Step 11:** Scroll down to the chemical list and add “**Last Evaluation Date**” column by clicking on any column heading, then on “add columns”:

Dashboard Chemical Inventory (1 - 17) of 17 results

Query: search ALL where Owner is "Elisabeth Rowlett"

Filter: Active Inventory

Barcode	Chemical Name	CAS %	Building	Room	Sub-Location	Hazards (CAS)	NFPA	Owner	Manufacturer	Quantity (container size)	SDS
131854 <small>hidden</small>	Oxygen 25% in Nitrogen, compressed		Science Hall	301				Rowlett, Elisabeth	Techstar	105 l	
142377 <small>hidden</small>	Methane 2.5% VOL (50% LEL) in Nitrogen, compressed		Science Hall	301				Rowlett, Elisabeth	Techstar	103 l	
142378 <small>hidden</small>	Propane 0.3% VOL (14.28% LEL) Oxygen in Nitrogen, compressed		Science Hall	301				Rowlett, Elisabeth	Techstar	103 l	
142379 <small>hidden</small>	Carbon Monoxide 15 ppm in Air (2% in Nitrogen), compressed		Science Hall	301				Rowlett, Elisabeth	Techstar	103 l	
169580 <small>hidden</small>	Propane 0.3% VOL (14.28% LEL) Oxygen in Nitrogen, compressed		Science Hall	301	work bench			Rowlett, Elisabeth	Techstar	3.64 cu ft	
169581 <small>hidden</small>	Calibrating Gas Mixture Carbon Monoxide 60 ppm, Propane 0.6% (27.27% LEL), Oxygen 15% in Nitrogen, compressed		Science Hall	301	work bench			Rowlett, Elisabeth	Techstar	3.64 cu ft	

**Step 12:** Select “Last Evaluation Date” column and click “ok”:

select fields to add ..

<input type="checkbox"/> Barcode	<input type="checkbox"/> Building	<input type="checkbox"/> Building Code	<input type="checkbox"/> CAS	<input type="checkbox"/> CAS %	<input type="checkbox"/> Chemical Name
<input type="checkbox"/> Chemical Notes	<input type="checkbox"/> Chemical SYS ID	<input type="checkbox"/> Chemical Verified By	<input type="checkbox"/> Chemical Verified Date	<input type="checkbox"/> College	<input type="checkbox"/> Container Notes
<input type="checkbox"/> Container Type	<input type="checkbox"/> Data Problems	<input type="checkbox"/> Date Acquired	<input type="checkbox"/> Date Empty	<input type="checkbox"/> Date In Transit	<input type="checkbox"/> Date Inactive
<input type="checkbox"/> Date Last Refilled	<input type="checkbox"/> Date Surplused	<input type="checkbox"/> Date Transferred	<input type="checkbox"/> Days Past Expire Date	<input type="checkbox"/> Density (Kg/L)	<input type="checkbox"/> Department
<input type="checkbox"/> Expiration Date	<input type="checkbox"/> Floor Code	<input type="checkbox"/> GHS Pictograms	<input type="checkbox"/> Hazards (CAS)	<input type="checkbox"/> Hazards (GHS)	<input type="checkbox"/> Hazards (full GHS)
<input type="checkbox"/> Hidden From Public	<input type="checkbox"/> Is Expired	<input type="checkbox"/> Is Secondary Container	<input checked="" type="checkbox"/> Last Evaluation Date	<input type="checkbox"/> Last Update Date	<input type="checkbox"/> Last Update User
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> Molecular Formula	<input type="checkbox"/> NFPA	<input type="checkbox"/> NFPA Flame	<input type="checkbox"/> NFPA Health	<input type="checkbox"/> NFPA Reac
<input type="checkbox"/> NFPA Special	<input type="checkbox"/> Owner	<input type="checkbox"/> Owner Email	<input type="checkbox"/> Owner Is Active	<input type="checkbox"/> Peroxidizable Date Opened	<input type="checkbox"/> Peroxidizable Date Tested
<input type="checkbox"/> Peroxidizable Test Result (ppm)	<input type="checkbox"/> Previous Locations	<input type="checkbox"/> Previous Owners	<input type="checkbox"/> Product Number	<input type="checkbox"/> Quantity (container size)	<input type="checkbox"/> Quantity (kg)

**Step 13:** Click on the “Last Evaluation Date” column heading, then choose and click on filter:

Issued 03/03/2011  
Revised 02/02/2023

Dashboard Chemical Inventory (1 - 17) of 17 results

Query: search ALL where Owner is "Elisabeth Rowlett"

Filter: Active Inventory

Barcode	Chemical Name	Last Evaluation Date	CAS %	Building	Room	Sub-Location	Hazards (CAS)	NFPA	Owner	Manufacturer	Quantity (container size)	SDS
131854	Oxygen 25% in Nitrogen, compressed			Science Hall	301	cabinet for flammables			Rowlett, Elisabeth	Techstar	105 l	SDS
142377	Methane 2.5% VOL (50% LEL) in Air (20.9% Oxygen in Nitrogen), compressed			Science Hall	301	cabinet for flammables			Rowlett, Elisabeth	Techstar	103 l	SDS
142378	Propane 0.3% VOL (14.28% LEL) in Air (20.9% Oxygen in Nitrogen), compressed			Science Hall	301	cabinet for flammables			Rowlett, Elisabeth	Techstar	103 l	SDS
142379	Carbon Monoxide 15 ppm in Air (20.9% Oxygen in Nitrogen), compressed			Science Hall	301				Rowlett, Elisabeth	Techstar	103 l	SDS
169580	Propane 0.3% VOL (14.28% LEL) in Air (20.9% Oxygen in Nitrogen), compressed			Science Hall	301	work bench			Rowlett, Elisabeth	Techstar	3.64 cu ft	SDS
169581	Calibrating Gas Mixture Carbon Monoxide 60 ppm, Propane 0.6% (27.27% LEL), Oxygen 15% in Nitrogen, compressed			Science Hall	301	work bench			Rowlett, Elisabeth	Techstar	3.64 cu ft	SDS
175595	Calibrating Gas Mixture Carbon Monoxide 60 ppm, Propane 0.6% (27.27% LEL), Oxygen 15% in Nitrogen, compressed	2022-02-04		Science Hall	301				Rowlett, Elisabeth	Techstar	3.64 cu ft	SDS
169582	Carbon Monoxide 15 ppm in Air (20.9% Oxygen in Nitrogen), compressed	2022-02-04		Science Hall	301	work bench			Rowlett, Elisabeth	Techstar	3.64 cu ft	SDS

**Step 14:** For "Last Evaluation Date" change "=" to "<" and enter the date when you started the periodic inventory in format YYYY-MM-DD.

**Example:** if you started the inventory on October 27<sup>th</sup>, 2022:

Dashboard Chemical Inventory (1 - 22) of 22 results

Query: search ALL where Owner is "Elisabeth Rowlett"

Filter: Active Inventory

**filter**

( Active between YYYY-MM-DD and YYYY-MM-DD ) x

AND

( Last Evaluation Date < 2022-10-27 ) x

enter date in format: 2012-06-25, 2014-12-25 14:55, 2012-01-02 5:00PM  
or calculation: today-60 days, today+1 month, today-5 years, today+ 200 minutes

-- add new filter element

cancel ok

169580	(20.9% Oxygen in Nitrogen), compressed	2022-02-11		Science Hall	301	on the table			Rowlett, Elisabeth	Techstar	3.64 cu ft	SDS
177430	Propane 0.3% VOL (14.28% LEL) in Air (20.9% Oxygen in Nitrogen), compressed	2022-10-27		Science Hall	301				Rowlett, Elisabeth	Techstar	3.64 cu ft	SDS
169581	Calibrating Gas Mixture Carbon Monoxide 60 ppm, Propane 0.6% (27.27% LEL), Oxygen 15% in Nitrogen, compressed	2022-02-11		Science Hall	301	gray tub on the table			Rowlett, Elisabeth	Techstar	3.64 cu ft	SDS

**Step 15:** Click "ok". At this point CEMS should show the list of containers that were not updated. This is the list of **Missing Chemicals**. If no chemicals are missing, you have completed the periodic inventory.

Issued 03/03/2011  
Revised 02/02/2023

**Step 16:** If there are **Missing Chemicals** they must be reported to EH&S. Submit **Form 8-102** [CEMS Inventory Discrepancy Form](#) to EH&S by email at [ehsafety@uta.edu](mailto:ehsafety@uta.edu) or fax 817-272-2144.

#### STEPS THAT CEMS USERS CAN TAKE TO PREVENT AND ELIMINATE INVENTORY DISCREPANCIES:

- Contact EH&S every time a new chemical container arrives at your lab/shop by following [SOP-Request to Inventory New Chemicals](#);
- Enter **Sub-Location** for every new container.
- Mark container **empty** on CEMS as soon as the chemical has been completely used.
- If logging into CEMS is not feasible at the time, peel off the barcode of the empty container and attach it to the laminated sheet on your laboratory wall labeled “UTA BARCODES OF THE EMPTY CONTAINERS”:



UTA BARCODES OF THE EMPTY CONTAINERS


TO UPDATE YOUR CHEMICAL INVENTORY, SEARCH FOR SAFETY DATA SHEETS (SDS), OR REQUEST WASTE REMOVAL VISIT  
[HTTP://CEMS.UTA.EDU](http://CEMS.UTA.EDU)

- Attend EH&S CEMS training for a refresher. Contact CEMS Admin at 817-272-2185 to arrange training.