Temple University
Environmental Health and Radiation Safety

EHRS CHEMINVENTORY

About ChemInventory: Environmental Health & Radiation Safety utilizes ChemInventory as the online chemical inventory system for Temple University and Temple University Health System. All chemical owners are responsible for keeping their inventory updated in ChemInventory.

What needs to be in ChemInventory: All hazardous chemicals must be listed in your ChemInventory. To determine if a chemical is hazardous look at the Safety Data Sheet that came with the product. If you do not have the SDS you will need to obtain a copy from the vendor/supplier. If the SDS says that the product contains no hazardous properties, then that item does not have to be in your inventory. Conversely, you must list any items that contain hazardous properties. Even if the product is not hazardous you must keep a copy of the SDS as proof in the event of an emergency or EHRS audit.

> Drugs/Controlled Substances: Controlled substances must be registered with EHRS but do not list them in ChemInventory. If you store drugs in the same state that are given to a patient/subject (pill, injectable, etc.), then you do not have to list them. If you break down a drug into individual components or have components that, when combined, become a drug, then the components must be listed in the inventory.

Keeping your inventory updated: EHRS needs to know the maximum amount of the chemicals that you have. This means both the maximum number of containers of a chemical, as well as the maximum amount that can be held in the container. For example, let's say that you have five 50 ml bottles of isopropyl alcohol purchased from Fisher Scientific. You would list them in your inventory as five individual containers. Here are some scenarios regarding updating the inventory:

> Scenario 1: You completely use up two of those containers of isopropyl alcohol and order two replacements of the same size from the same vendor. In this case you do not have to do anything in ChemInventory since you will still have a total of five 50 ml containers of isopropyl alcohol from Fisher.
>
> > EHRS does not need you to update your inventory every time you use a bit of chemical – for example, if you start with a 50 ml container you do not have to update the amount to indicate you used 5 ml from one container.
>
> Scenario 2: Any container that is picked up by EHRS as chemical waste must be marked as such in your inventory. Any containers ordered as replacements for these wasted containers must be added into your inventory. Using our example, if you have two containers that each have 5 ml left picked up by EHRS as waste, those containers must be marked as waste and any replacements must be added in as new records.

If you have chemicals that you no longer use or need, you will need to complete a Hazardous Waste Pickup request and submit that to EHRS so the chemicals can be safely removed from your lab/chemical storage area.

Scenario 3: You use up or dispose of as waste two containers and do not plan on replacing them. In this case you will need to update your inventory to reflect your planned holdings.

Scenario 4: You decide that you need more than five containers of isopropyl alcohol. If you plan to add more than the current amount that is in your inventory you will need to update the number of containers in your inventory. If you originally had five containers and decide that you now need seven containers, then you would need to add the additional two containers to your inventory.

Exceptions: 1) If you portion out your chemicals into smaller containers for use (for example, pouring 50 ml into five 10 ml containers) you only need to report the original container with a volume of 50 ml; 2) If your replacement container(s) come in before you have completely used up the original container. EHRS may ask for documentation to demonstrate that a new container has recently been received.

How EHRS uses ChemInventory: EHRS, as part of their usual audit process, will check ChemInventory to make sure that it is accurate and matches your physical inventory. Any discrepancies can and will be counted as a violation. In the event of an emergency, EHRS will give your current inventory to first responders. If there is a chemical spill or release and/or lab personnel are exposed to a chemical, EHRS will check the inventory to make sure the item is listed - severe ramifications are possible if it is not.

Getting Access to ChemInventory

What kind of accounts are in ChemInventory – and how do I get one? Every chemical owner will have an account because the chemicals will be listed under their names. After they (or their representative) attend training, the inventory will be accessible. If they require additional accounts for anyone else in their lab/chemical storage area they can complete the online User Registration Form. These additional users will be able to manage and keep the inventory updated and in compliance.

How do I log into ChemInventory? Access to the new system is driven by your Temple University or Health Systems credentials. In your browser, go to https://ehrs.temple.edu/ehsa. You will be asked to choose either Temple University or Temple Health. Choose your employer and you will be redirected to that entity's sign-in page. Sign-in with the appropriate credentials and the site will open up.

All users must have and use their own AccessNet account in order to sign into ChemInventory.

I'm a new ChemInventory owner – do I have to enter everything from scratch? If your lab or chemical storage area has never had an electronic chemical inventory on file with EHRS before, you do not have to manually enter all of your inventory into the system. Once it has been determined that you are new to the system you will be sent a template in spreadsheet form that you can complete. Once your current inventory has been entered on it you can send it back to EHRS and it will be uploaded into the system. Two important things to remember when completing the spreadsheet:

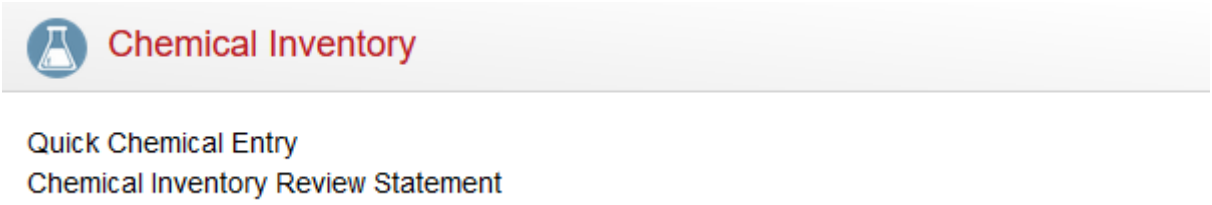
1) Instructions will be sent along with the template spreadsheet. You must follow these directions when filling out the spreadsheet or your inventory cannot be uploaded.

2) When you compile your initial inventory on the spreadsheet you must perform a physical evaluation of your chemicals: this means physically looking at the container and confirming that the chemical is still in usable condition, it has not expired, is not chemical waste, and that peroxide has not formed inside the container. Once you have determined that the chemical is usable you can list it in your inventory.

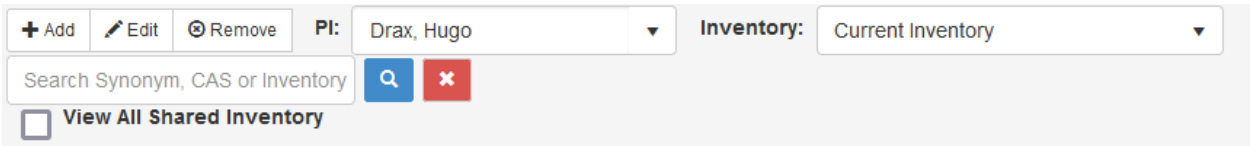
Working With Existing Inventory

After you login to the system, click on the 

icon in the middle bottom of the screen. Next click **Quick Chemical Entry** from the Chemical Inventory menu.



Your inventory will now be visible to you.

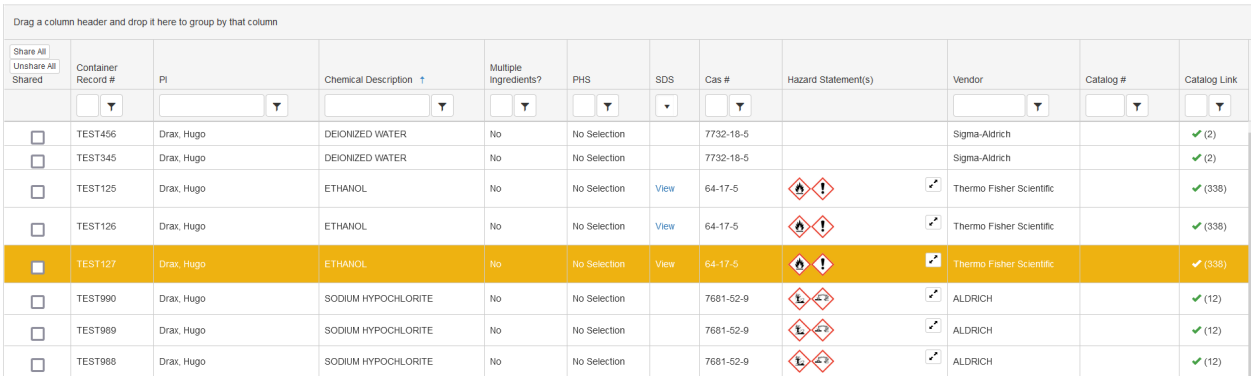


At the top of the screen, you will see options to Add, Edit, and Remove items. If you have access to more than one Owner's inventory, you can click the PI dropdown box and change to their inventory. By default, you are going to be shown your Current Inventory; you can click the

Inventory drop-down to change views to things like Disposed Inventory, Expired Inventory, and other options.

You also can use the Search box to search for items in your inventory by Synonym, CAS, or Inventory number. Click the red X to clear out any search terms you may have already used.

Now let us move down to the actual inventory containers:



Drag a column header and drop it here to group by that column

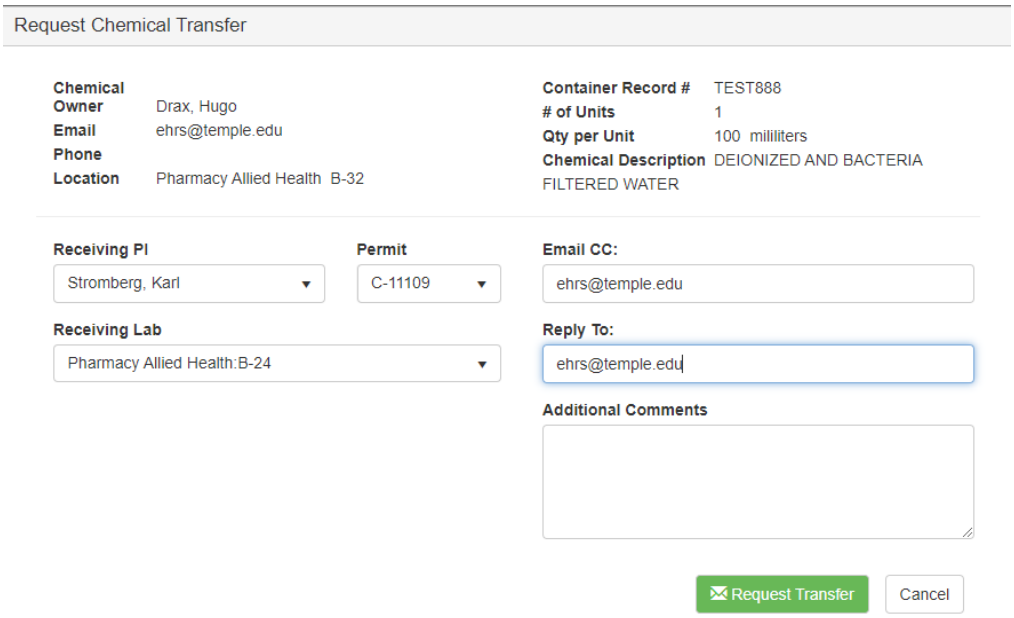
Share All / Unshare All Shared	Container Record #	PI	Chemical Description	Multiple Ingredients?	PHS	SDS	Cas #	Hazard Statement(s)	Vendor	Catalog #	Catalog Link
☐	TEST456	Drax, Hugo	DEIONIZED WATER	No	No Selection		7732-18-5		Sigma-Aldrich		(2)
☐	TEST345	Drax, Hugo	DEIONIZED WATER	No	No Selection		7732-18-5		Sigma-Aldrich		(2)
☐	TEST125	Drax, Hugo	ETHANOL	No	No Selection	View	64-17-5		Thermo Fisher Scientific		(338)
☐	TEST126	Drax, Hugo	ETHANOL	No	No Selection	View	64-17-5		Thermo Fisher Scientific		(338)
☐	TEST127	Drax, Hugo	ETHANOL	No	No Selection	View	64-17-5		Thermo Fisher Scientific		(338)
☐	TEST990	Drax, Hugo	SODIUM HYPOCHLORITE	No	No Selection		7681-52-9		ALDRICH		(12)
☐	TEST989	Drax, Hugo	SODIUM HYPOCHLORITE	No	No Selection		7681-52-9		ALDRICH		(12)
☐	TEST988	Drax, Hugo	SODIUM HYPOCHLORITE	No	No Selection		7681-52-9		ALDRICH		(12)

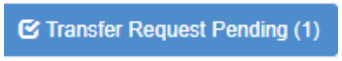
The **orange line** indicates the item that you have currently selected and would be the container that you could update by clicking the Edit button above. Other highlighted colors you may see are **yellow** for expiring chemicals, **red** for expired chemicals, and **blue** for Appendix A chemicals (Chemicals of Interest as defined by the United States Department of Homeland Security). You can scroll up-and-down to see more chemicals and left-to-right to see more columns.

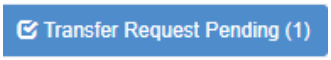
The far-left hand column is a checkbox that you can use to indicate that a chemical is "shared." This means that you want to make it available to other users. You have the ability to share all of your chemicals, some, or none of your chemicals. To see all available shared containers across the system, go back to the top of the screen and click 

.

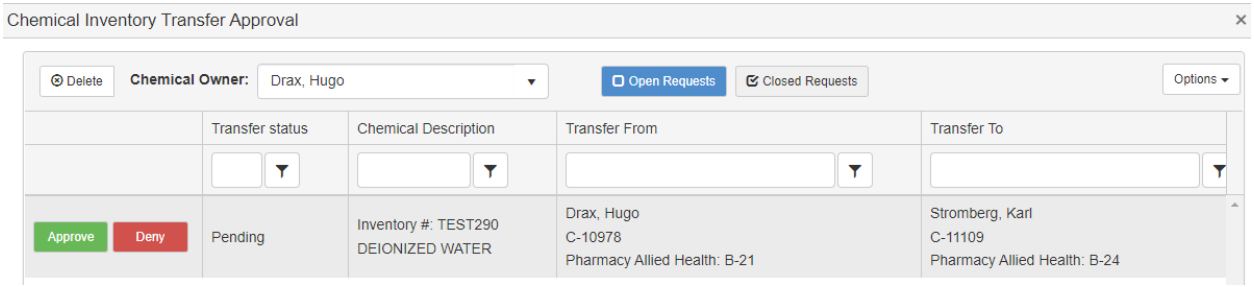
To request a transfer of a shared inventory item, click on the  button next to the item you are interested in and complete the request form that opens:



The current owner of the chemical will receive an e-mail notification and a notice will appear a the top of their own chemical inventory: 

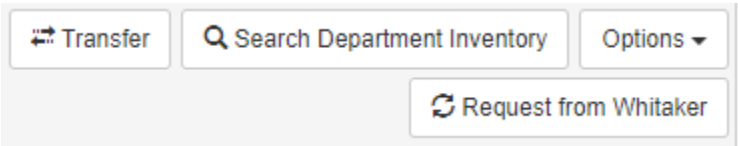
They should click on the blue 

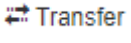
button to review the request and click on the appropriate choice:



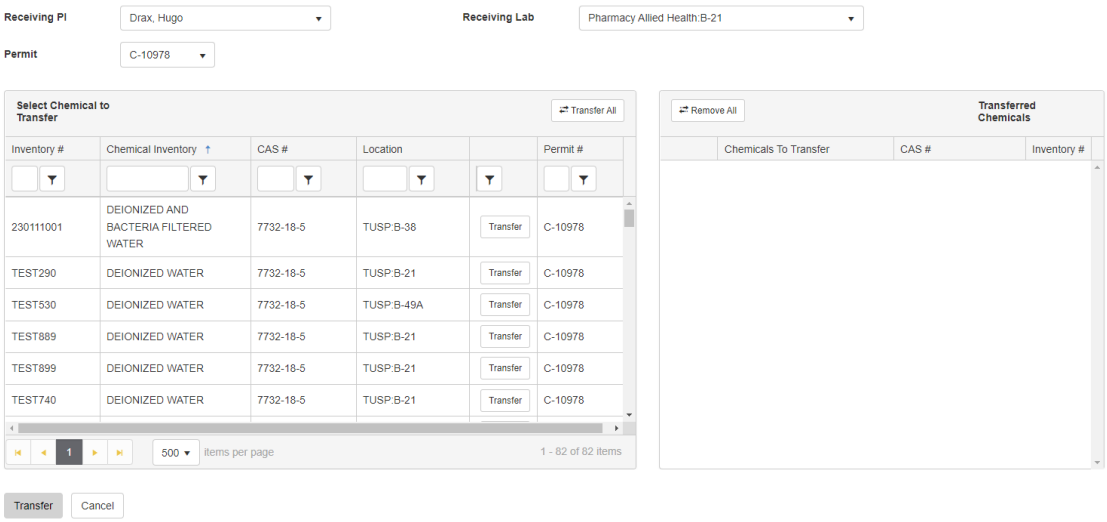
<u>Other Transferring and Inventory Search Options</u>

In the upper right corner are some other search and transfer functions:



Clicking on 

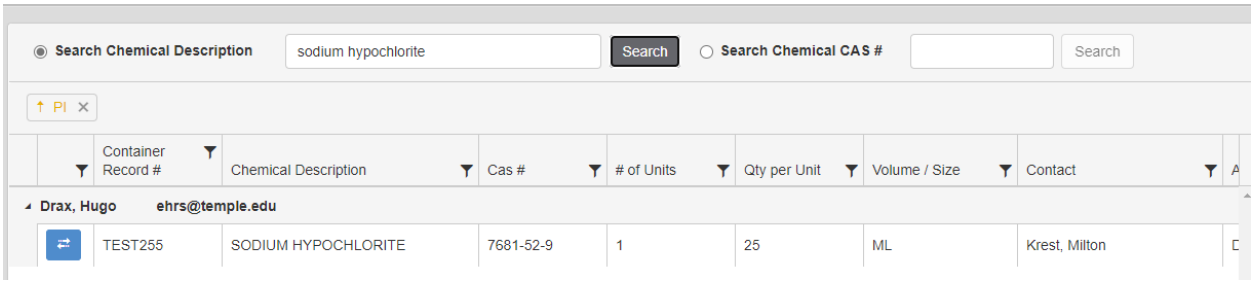
will allow a lab to move multiple containers between *their own labs* at the same time:



The entire inventory will be shown at the left. Click on the Transfer button to move a container to the right-hand pane. you use the filters at the top of each column to narrow down your choices or click Transfer All to choose everything.

If you click Transfer All immediately it will move all current inventory items to the right-hand pane. If you perform a filter first, click Transfer All will only move the filtered items to the right-hand pane.

Clicking Search Department Inventory will allow you to search only the shared items belonging to labs in your department.



Users can again use the button to request a transfer of a container. And again the chemical owner will have the ability to Deny the request.

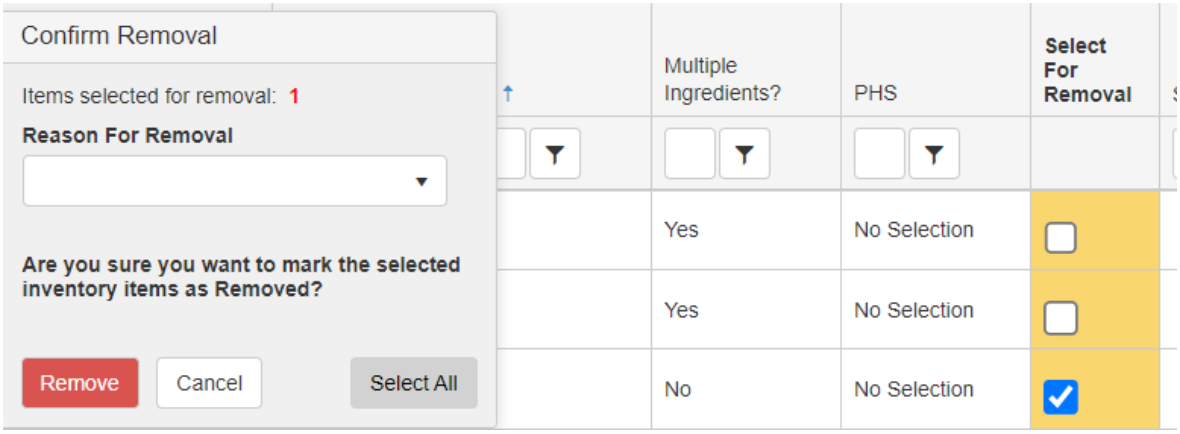
Chemical owners must opt-in and choose items to share. Shared items will appear in both the system-wide search, as well as the Department search.

There will also be a Request from button. At this time, this feature should only be used by Chemistry Department personnel.

Removing Items from the Inventory

When you remove an item from an active inventory you are not deleting the item. You are removing it from your active inventory, but the container/record will still exist in the system. To mark an item (or items) as removed, click the Remove button at the top of the screen.

A new window will open so you can confirm what needs to be removed:

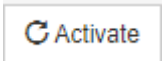


You can click the Select for Removal checkbox next to each item to mark it for removal. By default, whatever line is highlighted in **orange** will be checked in the Select for Removal box. You can also click a filled-in checkbox to remove the item from the list. You will also see the **Items selected for removal** number change with every checkbox update.

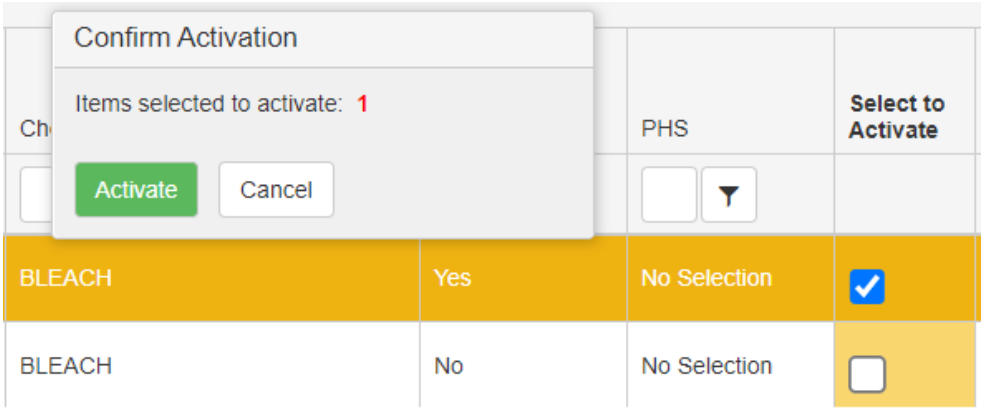
Once you have updated your **Select for Removal** column, click the **Reason for Removal** drop-down box and choose the appropriate reason and then click **Submit**:

- **Data Entry Error**: A container that was accidentally entered in the system and you need to remove it.
- **Transferred**: A container that was given to another lab or chemical owner.
- **Used**: All contents of the container have been used and the container is empty.
- **Waste**: The remains of a chemical have been picked up and disposed of as chemical waste.

Please be accurate in choosing your Reason for Removal. This is important for record keeping and reporting reasons. Only one reason can be chosen for each transaction, so if you have five containers to be removed and three are waste and two are used, it will require two separate transactions in the system.

You are not deleting inventory items. If you remove an item from your active inventory – accidentally or on purpose – you can move it back by changing your Inventory view to Disposed Inventory. When you change the view, a 

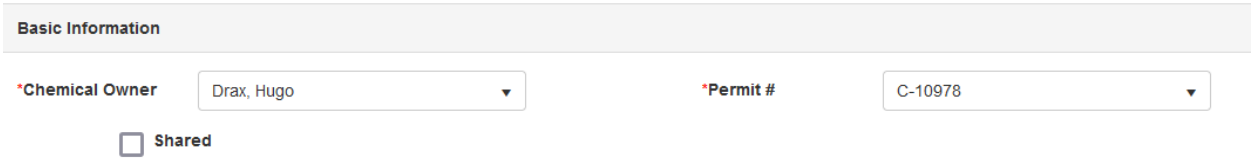
button will appear at the top of the screen. Click that button and repeat a similar process by checking the containers you want to restore and click the green **Activate** button.



Please do not activate a waste container to represent a new container in the inventory. If you marked a container of isopropyl alcohol as waste in September 2022, do not activate the wasted container if you add a new container in November 2022. The new container should be added as separate and new record.

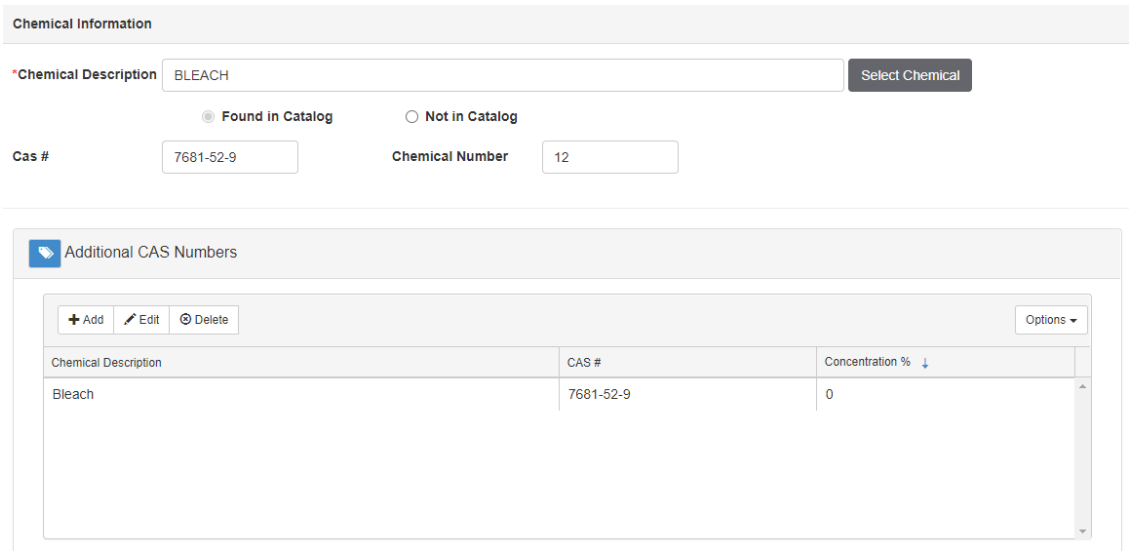
Updating Chemical Records

Double-click on an inventory item to open up its contents.



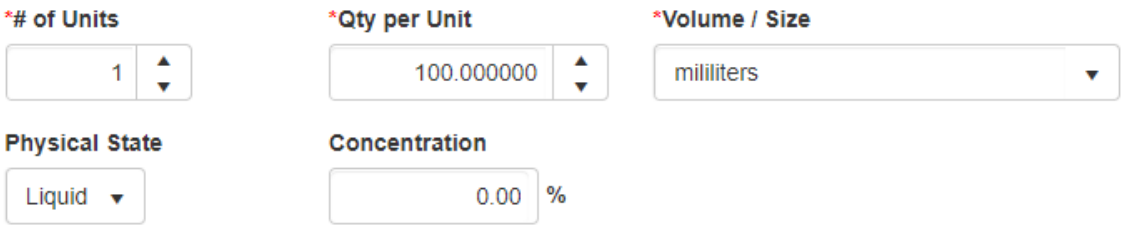
The Basic Information section gives you the Container Record Number, the Chemical Owner, and Permit #. Unless a user has access to multiple owner's inventories, nothing can be changed in those fields. You have the option check the Shared box if you would like to advertise availability to other users.

Do not change already entered Container Record Numbers.



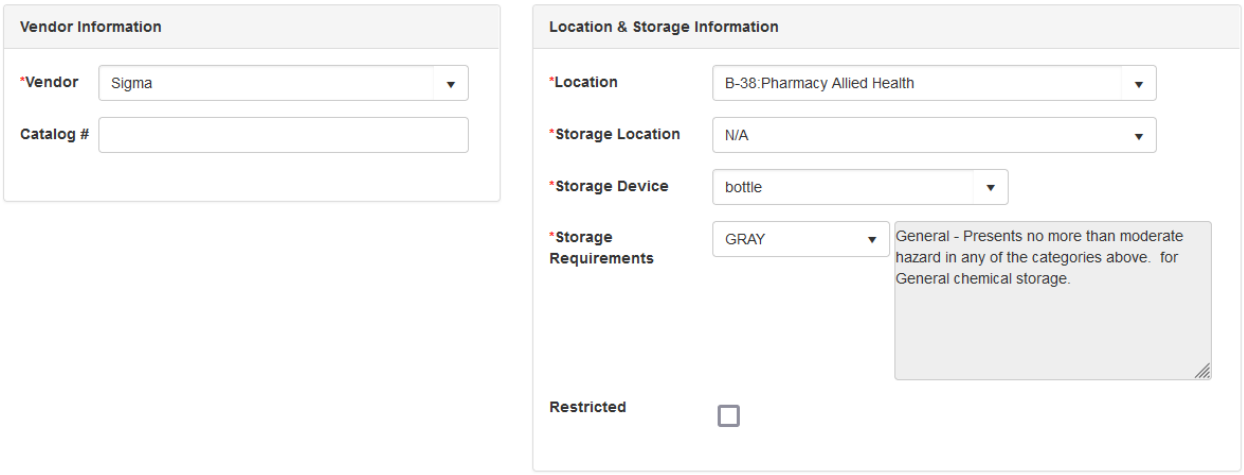
The Chemical Information section shows the actual chemical make-up of an item. Clicking the Select Chemical button gives you access to the Chemical Catalog, and you can update the name of your chemical.

Do not use this function to rename chemicals that have been disposed of. For example, if the original record was for isopropyl alcohol that has now all been used, do not change the Chemical Description for a new chemical coming into your inventory. You should still mark the record as used/wasted/transferred and then start over with a new chemical entry.



You can edit already existing data in this section, including the # of Containers and the amount per container.

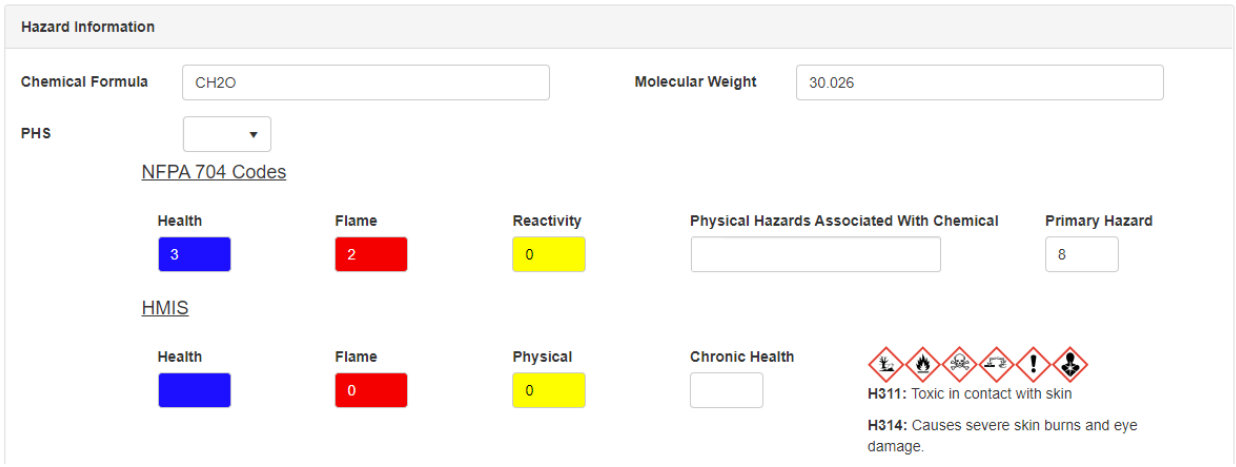
Each container must be listed individually. If you use up a container and replace it with an item of the same chemical description and vendor, you can update the quantity per unit to match the new item. For example, I can change the example to 25 ml, if I have completely used up my 100 ml container AND it still is the same chemical and vendor.



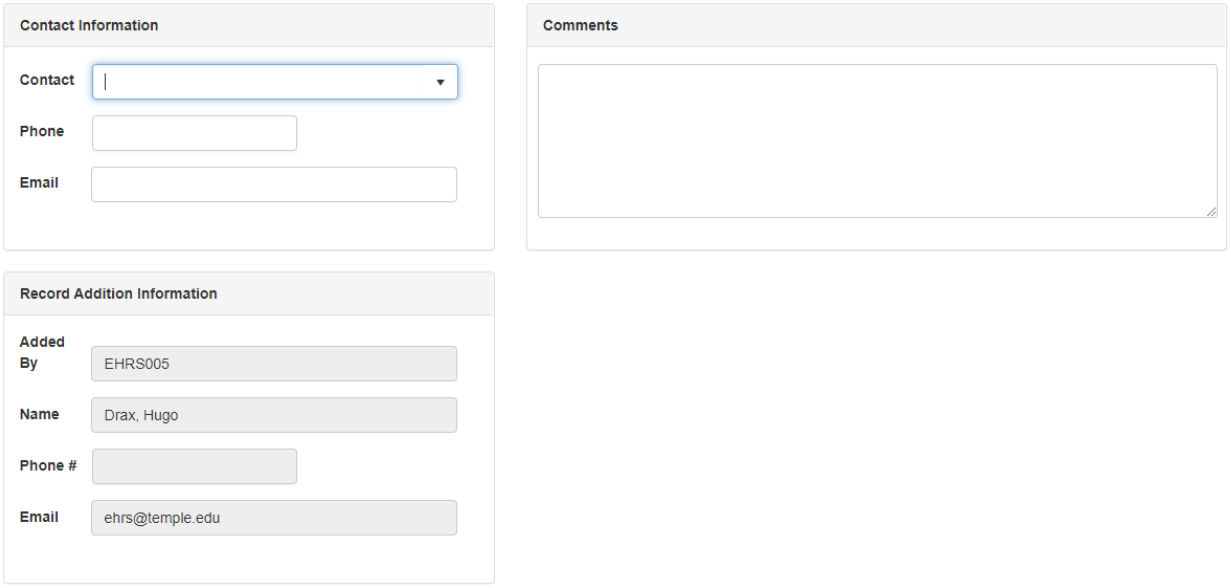
Scrolling down, the Vendor and Location & Storage Information can also be edited. You can only change the location to rooms that are on the Chemical Owner's chemical permit in the EHRS database. If your new location does not appear in the drop-down, you can notify EHRS via e-mail at cheminventory@temple.edu.

Storage Location and Storage Device are required fields. It is acceptable to choose general responses to these items – **Bottle** is acceptable for a Storage Device, without going into greater detail. When choosing a Storage Location, choose **General Storage** if you do not have specific Storage Location in mind.

You can change the **Receipt Date, Open Date,** and **Expiration Date.** If you use up and replace the same chemicals frequently, make sure to keep this information updated so that a container does not show as Expired if it is not.



The Hazard Information section should normally be auto-populated by the system's Chemical Catalog. You can update **Chemical Formula** and **PHS**, but **NFPA** and **GHS** information is set by the Catalog.



You can provide update **Contact Information** if there are particular people that are responsible for particular chemicals. You also have space for **Comments** that will go with the container record. The **Record Addition Information** box is set by the system.

Finally, please make sure to click the 

button either in the top right-hand corner of the screen or at the very bottom to add your changes to the system.

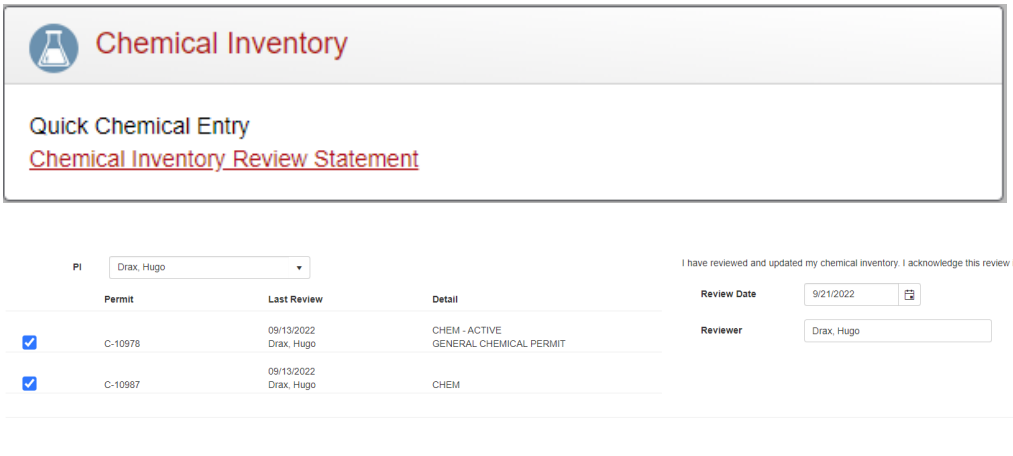
Annual Chemical Inventory Review

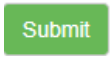
All inventories must be reviewed once per calendar year (January 1 – December 31). This is required, even if there have not been any changes to your chemical inventory within the system.

> Physical evaluation required: Before completing the Review, you must perform a physical evaluation of your chemicals: this means physically looking at every container and confirming that the chemical information (name, vendor, container size) matches the records in your chemical inventory and that the chemical is still in usable condition, it has not expired, is not chemical waste, and that peroxide has not formed inside the container.

To complete the review in ChemInventory, log into the system and click the 

icon and then click the Chemical Inventory Review Statement link.



If you work for more than one chemical owner, make sure the correct name is showing in the PI drop-down box. You can change the **Review Date** as necessary (for some labs with a lot of chemicals, it is possible that the review could take multiple days – the Review Date should be set to the date the review was completed). The **Reviewer** field will reflect whoever is currently using the system. Click the 

to complete the review. If you go back into the Chemical Inventory Review Statement page, you will that the Last Review date will be reflected.

> Clicking the Submit button is an acknowledgement that the inventory has been physically reviewed and is accurate as of the date of the review. Chemical owners may have authorized co-workers complete the Review Statement for them but the ultimate responsibility for the accuracy of the inventory always falls to the chemical owner.

> Completion of the Review Statement is an annual requirement and completion does not mean that the inventory does not have be updated again until the next year. Changes to

physical inventory occurring after the Review Statement has been completed still must be reflected in ChemInventory.

Adding New Inventory

When to add new inventory: New inventory must be added whenever a new chemical (either by chemical name, vendor, and/or container size) enters the lab/chemical storage area.

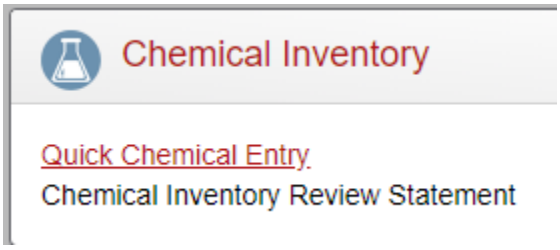
Remember that if you have a replacement for a **used** container (completely emptied and not waste), you can re-use the ChemInventory container for the new container. If the previous container was disposed of as waste, you need to enter a new container in the system.

For fire and safety reasons, new inventory must be added to the system as soon as possible upon physical receipt. The chemical should not be present in the lab for more than 24 hours before ChemInventory is updated.

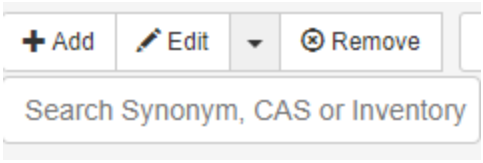
A word about Container Record Numbers: Every individual container has a unique Container Record Number in ChemInventory. These numbers were either carried over from CEMS, or they are automatically generated by the system as you introduce new containers to your inventory.

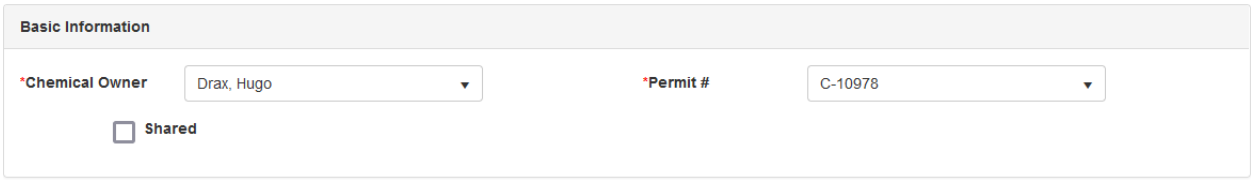
You are not required to get a barcode scanner or scannable labels. EHRS will not ask during an audit to associate a particular container with a particular CRN. We may, however, check your online inventory to make sure that it matches your physical inventory (such as confirming that you have five bottles of isopropyl alcohol both physically and in your inventory).

Adding inventory: Click Quick Chemical Entry on the Chemical Inventory menu:



Click the Add button in the upper left-hand corner.



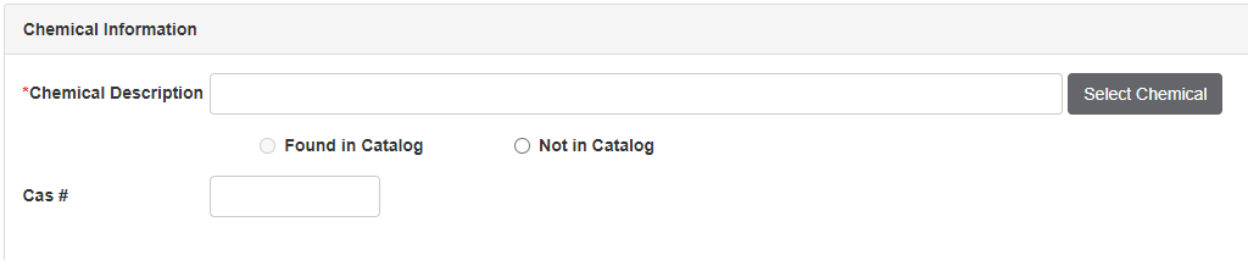


The Chemical Owner name will show in the Basic Information box. If not already populated, you will need to choose a **Permit** # from the drop-down box. In *most* cases there will only be one option to choose from in the Permit # box.

> Please contact EHRS if you are given a choice the first time you add a new item. EHRS will tell you which permit to use – you should continue to use only that permit until notified by EHRS.

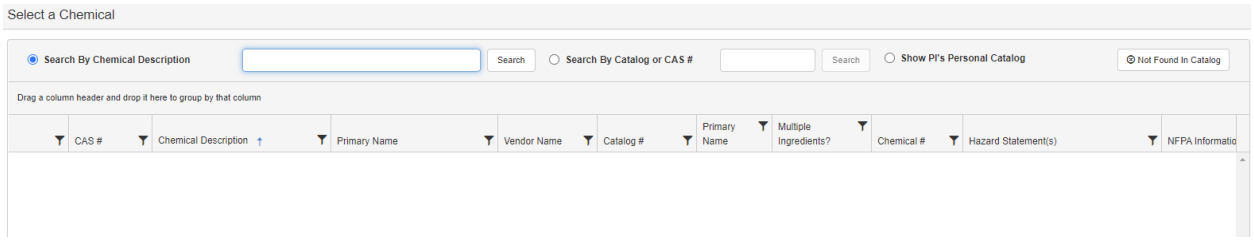
If you want to make this item available to other users by checking the **Shared** box.

As you proceed down the page, you will notice that this is very similar to the screen we used when we were editing already existing inventory. Please note that anything marked with a red asterisk is a required field.



Click the 

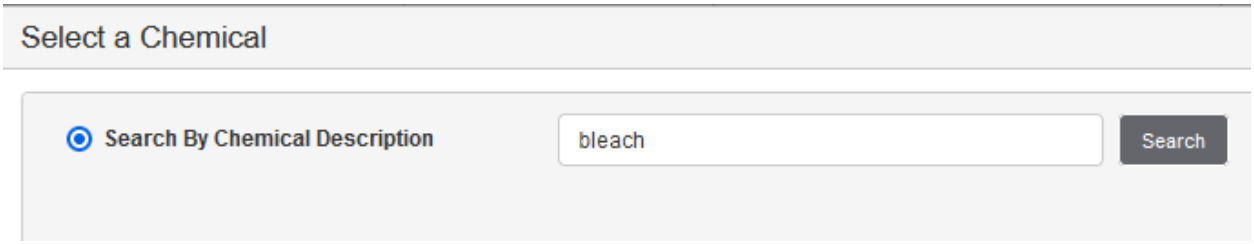
button next.



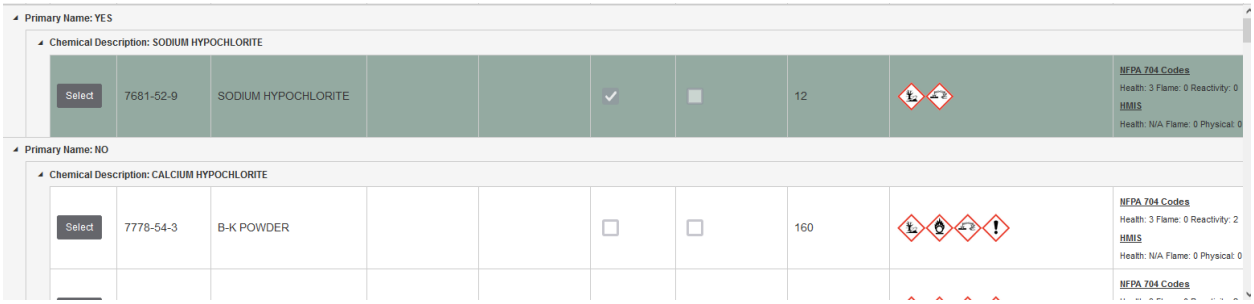
You will have three options on how to search for chemicals:

- **Search by Chemical Description:** Type in the chemical name (using the container label as a guide) and click Search. This will check ChemInventory's chemical catalog for a match.
- **Search by Catalog or CAS #**: In this case, Catalog is the vendor's Catalog (or Product) number. You can also search for a specific CAS number here.
- **Show PI's Personal Catalog**: This is a good option if you know that the chemical you are adding is already in your inventory, but you need to add a new record because either the container size or vendor is different.

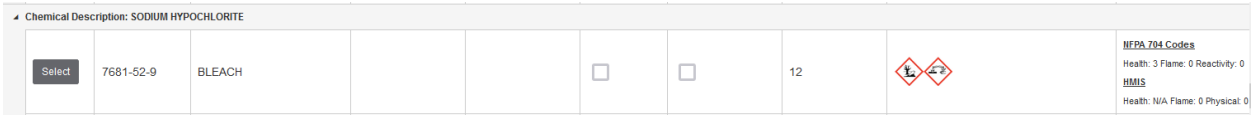
Let us add isopropyl alcohol to an inventory:



I am going to enter that as my search string and click Search. Now I am going to see a many options to choose from:

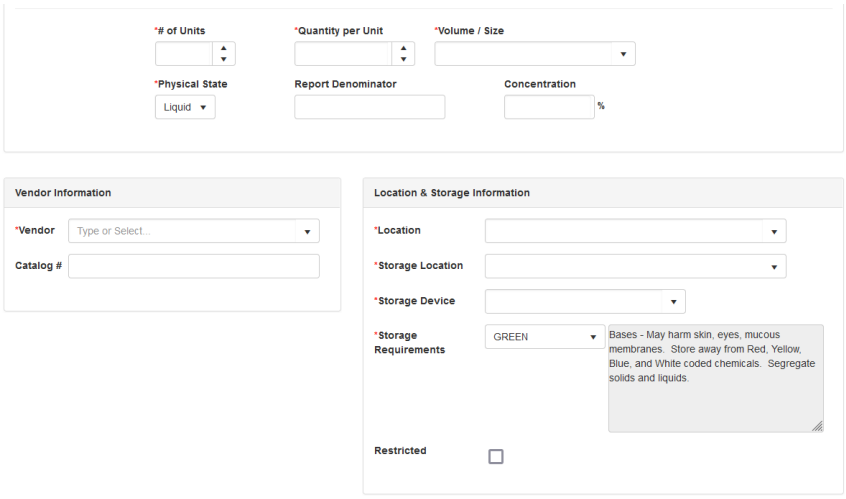


I want to scroll down until I find what matches my chemical and then click Select:



If I exhaust my search options and I still cannot find my item, I need to click the Not Found In Catalog button in the upper right corner of the Select a Chemical screen. You will need to provide all information for that chemical and will be adding it to the Chemical Catalog.

If you have a match in the Chemical Catalog, most of the chemical-specific information (CAS number, safety information, etc.) will already be populated for you.



Just as we saw when working with already existing inventory, we will need to personalize this record for our circumstances. Fill in all of the red asterisk marked boxes with the correct information. Then move down to complete the Vendor and Location & Storage Information.

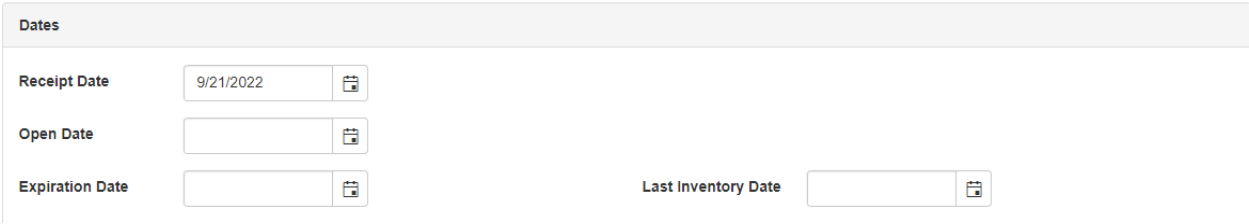
If you are adding multiple containers of the same item – same chemical description, same vendor, same container size – you can use the # of Units box to indicate how many containers you have. Once you complete the Add process, it will add that many individual containers to your inventory.

The Vendor drop-down field will become more populated as more and more people use ChemInventory. Please contact EHRS if your vendor does not show on the list.

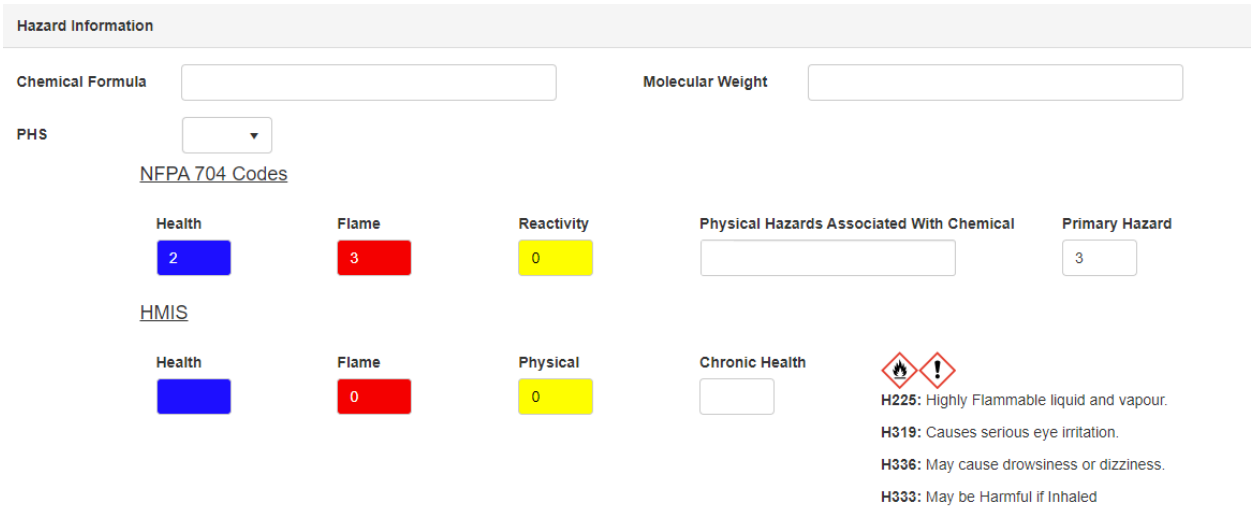
You can only add items to locations that are on your chosen chemical permit. If your location is not on the drop-down list, please contact EHRS for assistance.

If you do not have a specific Storage Location, you can choose **General Storage**.

Information on Storage Requirements classifications can be found on the Safety Data Sheet or from the vendor. Further information can be found on the EHRS website, or by contacting EHRS for assistance.

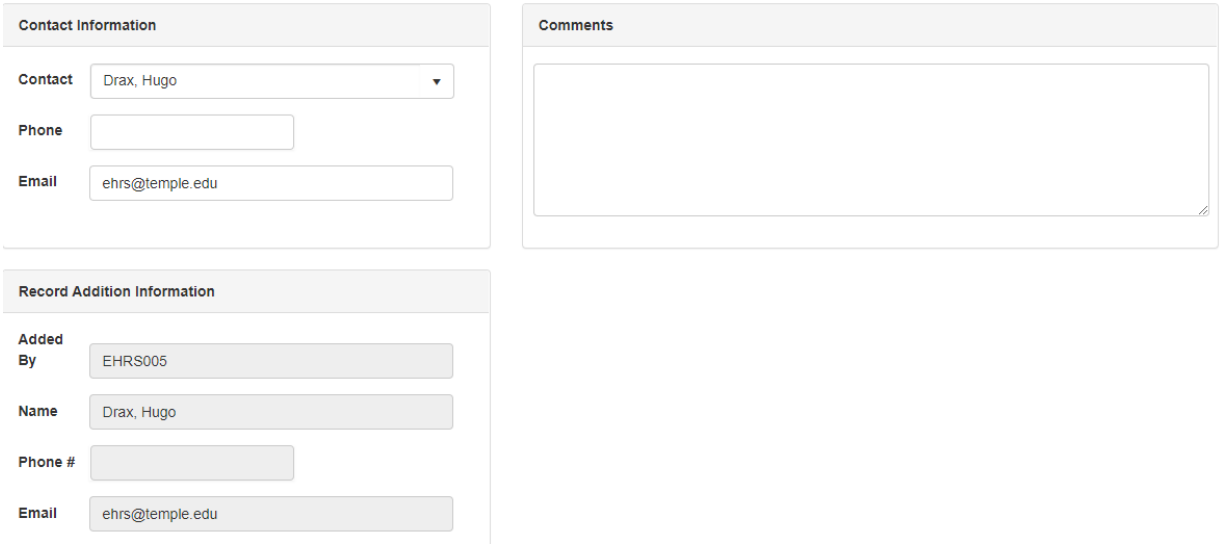


The **Receipt Date** will default to today's date. You should only need to change this in very specific circumstances. **Open Date** is important for peroxide-forming chemicals that need to be tested every three-to-six months. **Expiration Date** should be on the physical container; if it does not present an Expiration Date, EHRS recommends putting a date at least a year into the future so it does not immediately show as being expired.



You can provide/edit the **Chemical Formula** and **Molecular Weight** here but cannot edit the NFPA codes for items already in the Chemical Catalog.

You can make the determination of an item is a Particularly Hazardous Substance. You can use the Safety Data Sheet for guidance or contact Environmental Health & Radiation Safety if you have any questions.



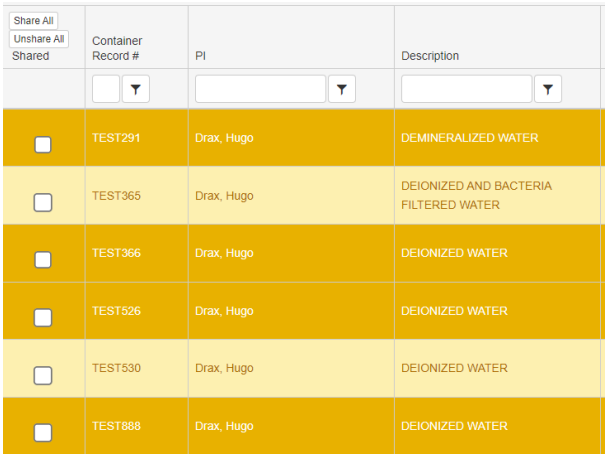
Specific Contact Information can be provided here, as well as Comments. The person adding the record will populate here, as well.

Once done, click the Save button. You will be taken back to your inventory and the container(s) you added will show up on the screen.

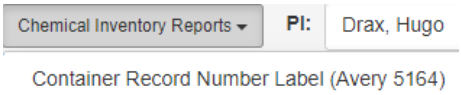
<u>Printing Container Record Number Labels</u>: As mentioned earlier, you are not required to physically label your containers with the Container Record Numbers (or old CEMS barcodes). You do have the option in ChemInventory to print out CRN labels, if you would like.

You must use Avery 5164 (or equivalent) labels to print them out in ChemInventory.

Once you have blank labels, go into your inventory, and select up to six containers. You can choose multiple containers by holding down the Ctrl key and clicking each individual container. Your selected containers will be highlighted in orange:



Go the top of the screen and click on the Chemical Inventory Reports dropdown and choose Container Record Number Label (Avery 5164):



The system will prompt you to tell it what label position to start with, using the diagram below as a guide:

1	4
2	5
3	6

ChemInventory will generate the labels and open in a new tab (check your browser settings if a new tab does not open). You can then print out the labels using your browser Print command.

Safety Data Sheets

All labs and chemical storage areas are required to have a complete library of Safety Data Sheets available. ChemInventory has a feature called SDS Hub that will help users locate and manage SDS.

Lookup a Safety Data Sheet: Anyone with Temple University or Health System credentials can go to https://www.temple.edu/ehrs/SDS and search the system for Safety Data Sheets. First, they will be asked to validate their credentials and they will be taken to the search screen.

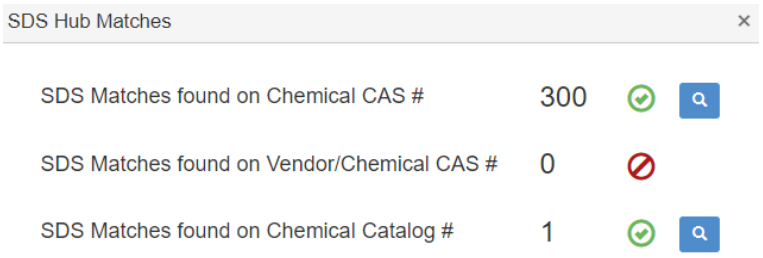
Complete instructions suitable for distribution or posting can be found on the last page of this User Guide.

Users with ChemInventory access will also see a 

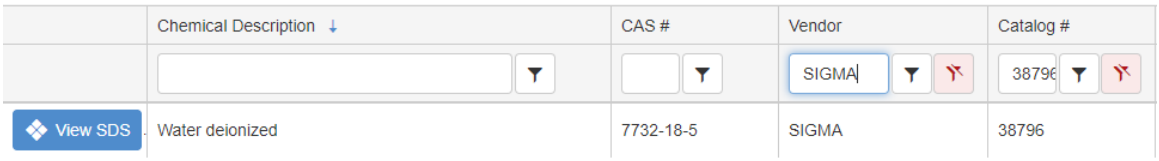
icon on their ChemInventory landing page. Clicking that icon will also go to the SDS Hub.

Associating Safety Data Sheets with Inventory: You have three options for associating a Safety Data Sheet with an item in your inventory.

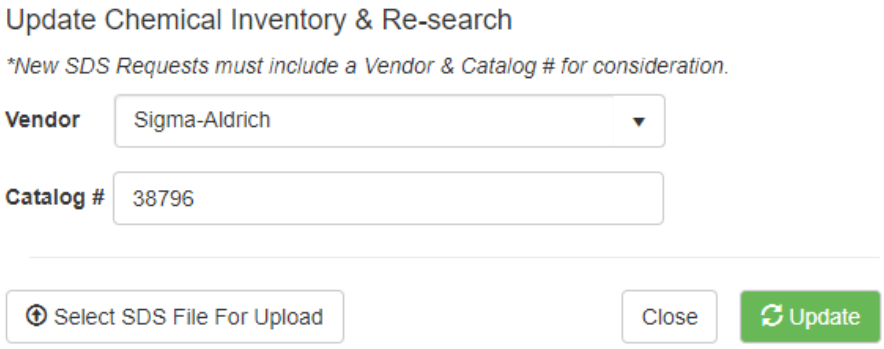
1) Click on the SDS Hub button for your item. You will see a window like this:



Click the  next to **SDS Matches found on Chemical CAS #** to see the list of all matching SDS. You can filter by vendor, catalog #, etc. Find the correct SDS for your item and note the catalog #.



Close out of that window and enter your vendor and catalog # in the box and click Update:



Once the SDS has been associated, you will see a green checkmark in the SDS Hub section:

2) If you have a Safety Data Sheet to add, click SDS Hub and then click Select SDS File For Upload. Choose the PDF file from your computer and it will be sent to our SDS Hub vendor for approval and upload. You will be notified by e-mail when the SDS has been added to the Hub.

3) If you need a Safety Data Sheet and you cannot find it, you can request that our SDS Hub vendor find and upload it into the system. Click on SDS Hub and then . Click Not finding your SDS in the upper right-hand corner and then complete the form that opens. It will be sent to our SDS Hub vendor, and they will locate and upload the Safety Data Sheet into the system.

Environmental Health & Radiation Safety can also be contacted during an emergency.

EHRS Contact/ChemInventory Support

Chemical Inventory Administrator:

Ryan Kohler
Compliance & Systems Manager
Environmental Health & Radiation Safety
Phone: 2-9282 Fax: 2-1600
E-mail: kohlerr@temple.edu

ChemInventory General Information:

E-mail: cheminventory@temple.edu

Safety Data Sheet Hub:

https://www.temple.edu/ehrs/SDS

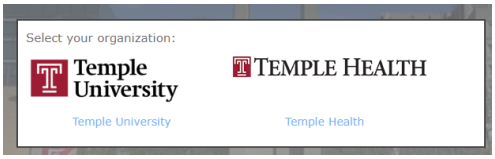
Environmental Health & Radiation Safety Office:

3307 N. Broad Street, Room B-49
Philadelphia, PA 19140
Phone: 215-707-2520
Fax: 215-707-1600

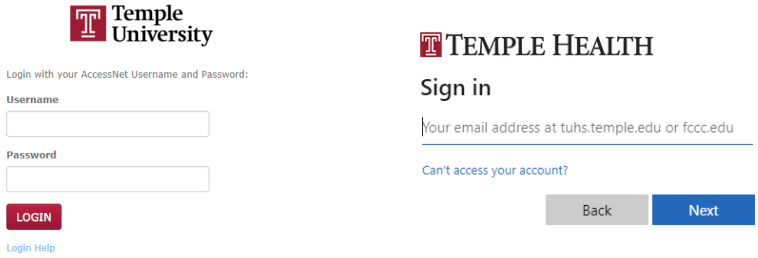
Temple University
Environmental Health and Radiation Safety

ACCESSING SAFETY DATA SHEETS

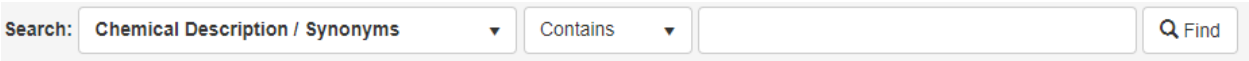
1) Go to https://www.temple.edu/ehrs/SDS in your browser.

2) 

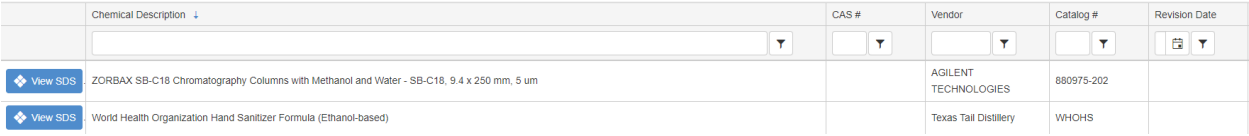
Choose the organization you work for.



3) Sign-in with your usual sign-in credentials.



4) Enter your search parameters (such as the chemical name) and click Find (please read and accept the User Agreement when prompted).



5) Items matching your search will show. You can filter any column by typing in the blank space and then by clicking the icon to choose how you want to filter. After you filter, click the button that appears to clear the filter and start over.

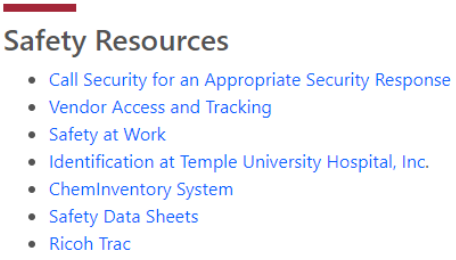
6) Click View SDS to open the Safety Data Sheet. It will open in a new window, and you can then print or save it to your computer.

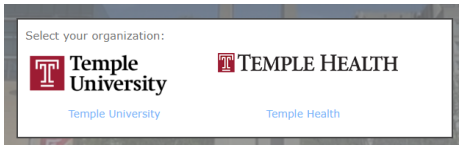
7) **If you don't see your SDS:** You can request that an SDS be added to the system by clicking on the Not finding your SDS button in the upper right-hand corner. Complete the form that opens and a request will be sent to our SDS service.

Temple University
Environmental Health and Radiation Safety

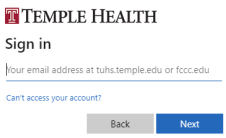
ACCESSING SAFETY DATA SHEETS (TUHS EMPLOYEES)

1) Go to https://www.temple.edu/ehrs/SDS in your browser OR go to The Hub site, then click on Admin Services → Facilities → and click Safety Data Sheets in the Safety Resources box.

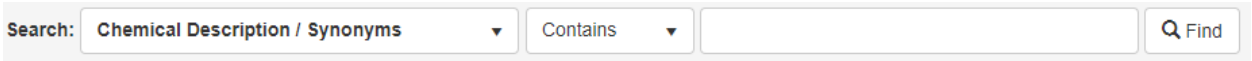


2) 

Choose Temple Health as your organization.

3) 

Sign-in with your usual TUHS sign-in credentials.



4) Enter your search parameters (such as the chemical name) and click Find (please read and accept the User Agreement when prompted).

5) Items matching your search will show. You can filter any column by typing in the blank space and then by clicking the icon to choose how you want to filter. After you filter, click the button that appears to clear the filter and start over.

6) Click View SDS to open the Safety Data Sheet. It will open in a new window, and you can then print or save it to your computer.

7) **If you don't see your SDS:** You can request that an SDS be added to the system by clicking on the Not finding your SDS button in the upper right-hand corner. Complete the form that opens and a request will be sent to our SDS service.