UNT CHEMICAL INVENTORY

CAMPUSOPTICS TRAINING MANUAL

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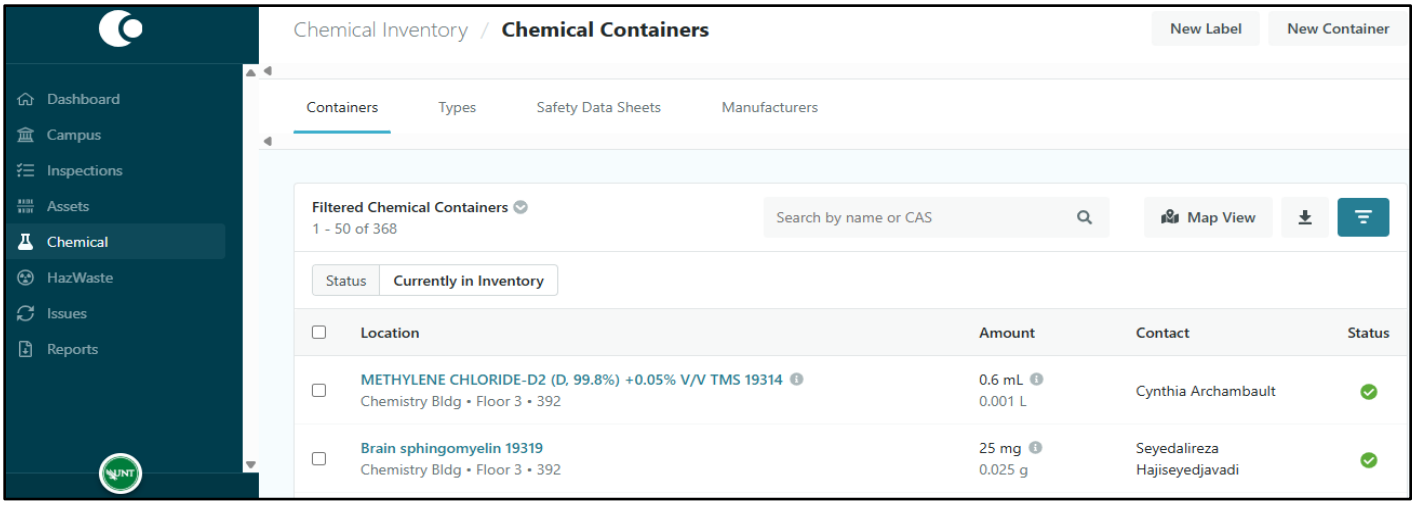
Chemical Inventory Overview

Navigate to the **Chemical** feature option on the left main menu, you will land on the **Containers** screen. There are 4 tabs on the top horizontal menu of your landing page, these are **Containers**, **Types, Safety Data Sheets,** and **Manufacturers.**

Containers View

Containers reflect the chemicals stored as your own lab inventory. If none are displayed, a new inventory needs to be created. If chemicals are listed on this view, these need to be reviewed and updated on a regular basis to ensure accuracy of chemical inventory.

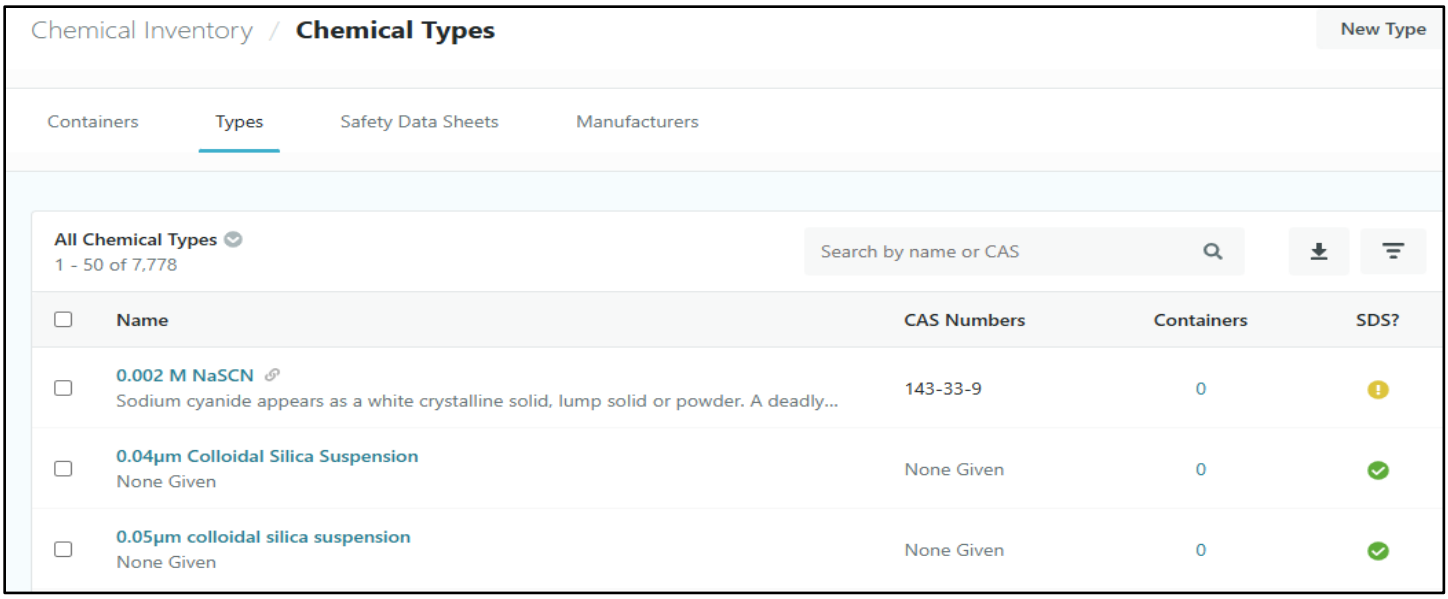


Containers display the list of all the containers that you have access to. Access is limited to your own chemical inventory, and those chemicals have been recorded to be in your own lab space(s).

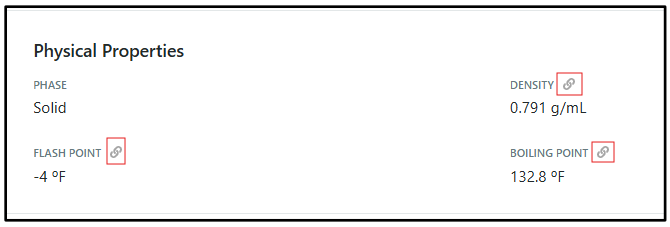
- **Location** information appears under the container name.
- **Amount** recorded for each chemical and the **person assigned** are also displayed in the container tab.
- A **green** check mark under the **Status** column indicates that the chemical information has been verified, and no expiration date was set, or the chemical has not expired, if an expiration date was included for that chemical. A **yellow** exclamation mark indicates SDS is missing, or the chemical has expired, when an expiration date is entered for that chemical.
- Clicking on a **chemical container** from the list takes you to the specific information for that chemical container in your lab, this will not show the overall amounts found across campus.
- When SDS are available, hyperlinks to those resources will be listed under the **Safety Data Sheets** block.
- When coordinates have been set for the container, a map will display that information in the **Location** block which is powered by Apple maps.
- **Verifications** block will display information regarding the verification process completed for that chemical which typically occurs when a new chemical container is uploaded to your inventory, or you manually run a new verification at the time you update your inventory.
- **Associated Barcodes** block displays any barcodes you add when adding new containers to your lab. Barcodes can quickly upload new chemical containers to a chemical inventory with the use of the CampusOptics app available for cell phone and tablet devices. **Note:** these barcodes must only be used for new original containers being brought into a lab.

Types View

Types reflect the full list of the chemicals located across the institution whether you have access to that inventory or not. Additional information displayed in this view includes the CAS Numbers added or missing for each chemical, number of containers across campus for that chemical, and whether a SDS has been linked to the chemical. The total number of chemicals in the system will continue to grow as all faculty members migrate their chemical inventories into this digital platform.



- Types overview page displays the names and descriptions of the chemicals reported by lab personnel across campus, **CAS numbers** are displayed, the **Containers** column reflects only the number of containers you have access to.
- CAS Number is the most important piece of information for every chemical within the system. This number is used by the system as the unique identifier for each chemical to pull in publicly available information on each chemical from online sources. CAS Number must be included for all chemicals as new chemicals get added to the system when creating/updating a chemical inventory.
- The system can pull **Safety Data Sheets** when available online, only when the CAS Number has been entered for the chemical.
- Clicking on a chemical name displays the detailed information uploaded for the chemical. Chemical types are displayed with the first name given when it first was created in the system.
- Chemical details include CAS Number, the description, manufacturer, any additional names, synonyms, Physical properties, GHS information, NFPA 704 information, Hazwaste Information and Container configuration.
- All information available on the chemicals that gets pulled from a public source such as PubChem is marked by the system with this icon:

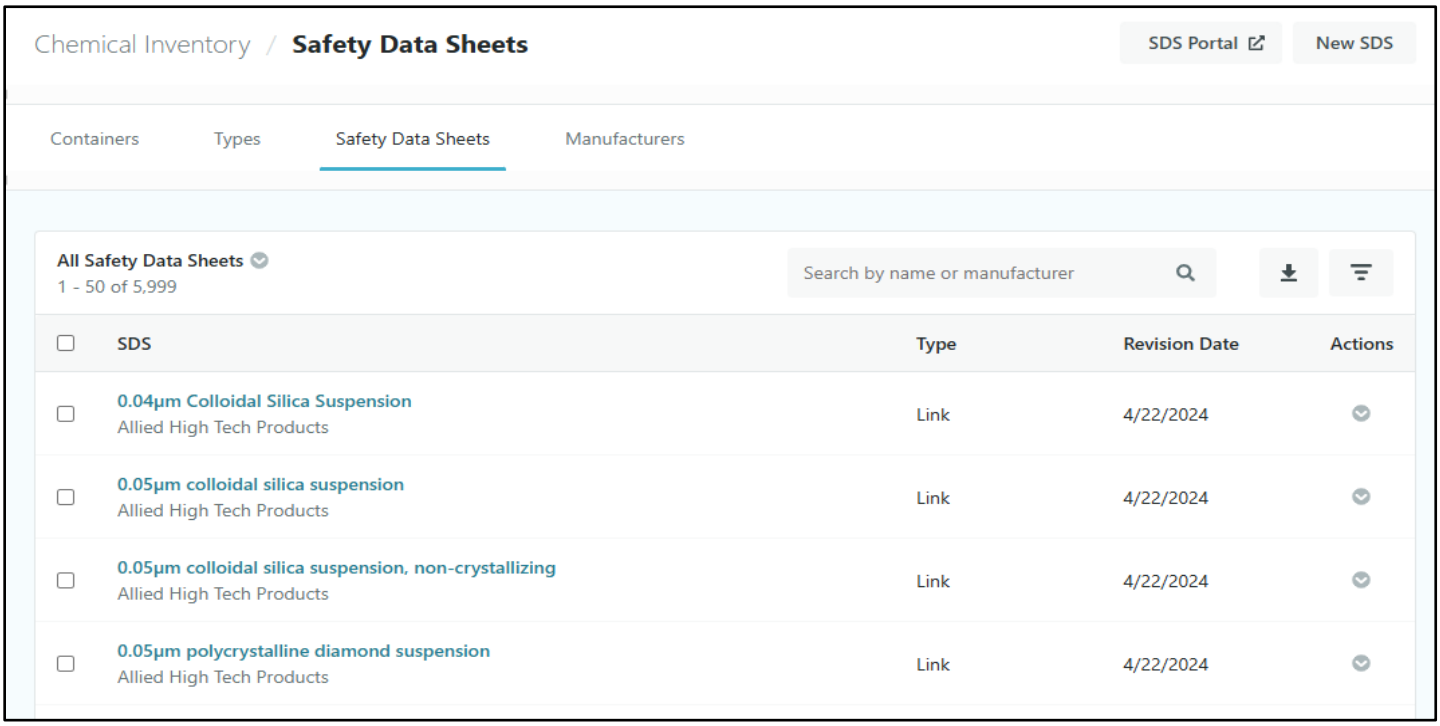


Safety Data Sheets View

Safety Data Sheets includes all the chemicals recorded in the system with an SDS available.

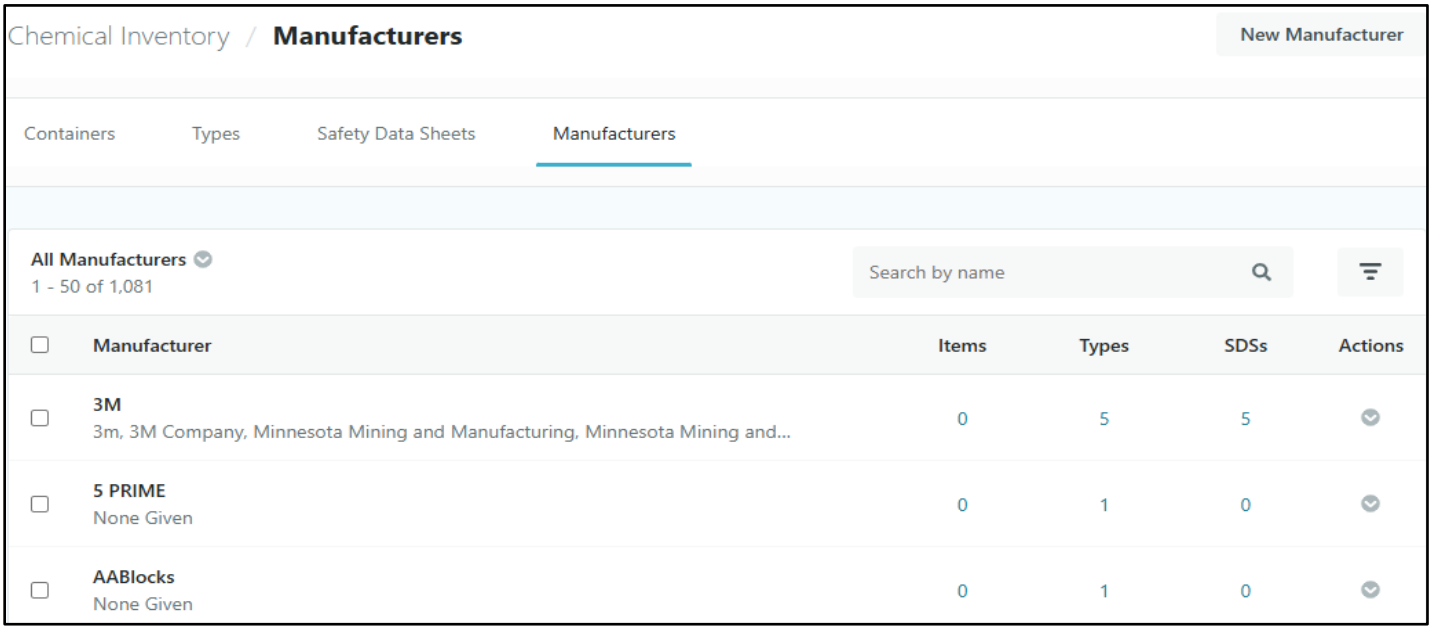
- Type column reflects the type of resource; this can be a hyperlink to an external source or a pdf document uploaded to the system.
- Revision Date displays the last date SDS was uploaded or updated.
- Actions column allows editing and accessing the SDS source.

- An SDS must be connected to a chemical record with the use of hyperlink and not document uploads. When hyperlinks are available for all SDS, the system can run annual verifications to ensure only the most updated information is available and maintained. Annual verifications run from information publicly available on the web.



Manufacturers View

Manufacturers information displays chemicals in the system by manufacturer name.



- The number of chemicals by the same manufacturer are displayed.
- The number of those chemicals connected to an SDS.
- Actions column allows for editing the manufacturer's name in case there is an error when the information is initially entered.

- These numbers listed under the Types column are limited to your access, the total number of chemicals recorded as part of your chemical inventory.

Filter icon. Filtering options are different across the 4 tabs in the horizontal menu. Allows you to locate any data point that exists as a part of a chemical record and use that as a filter criterion to help drill down or narrow down the lists to more specific information you may need at different times

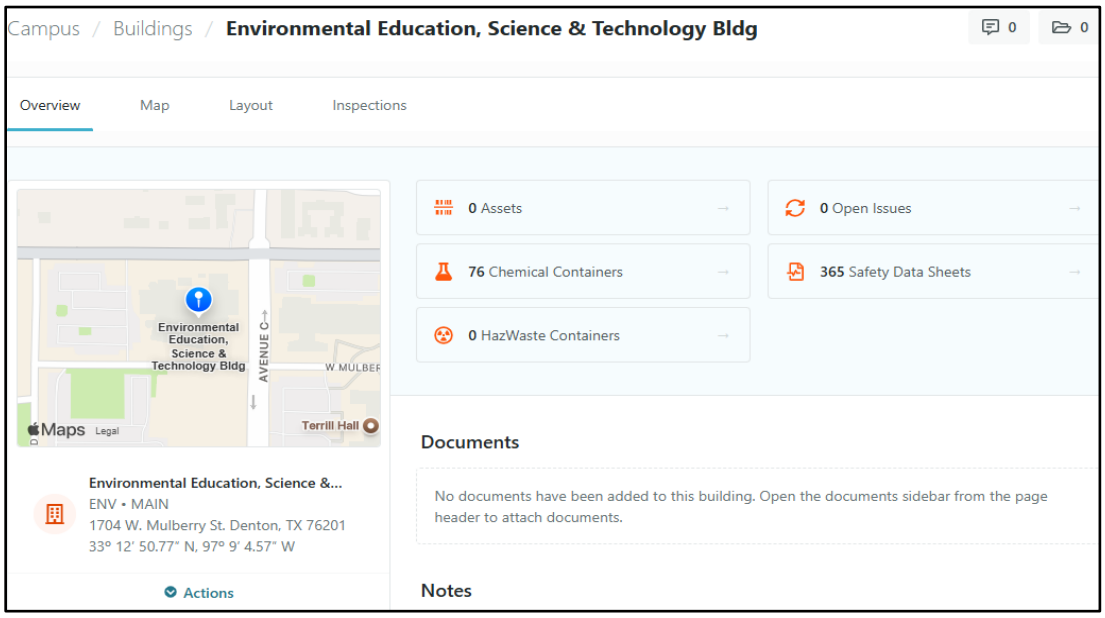
The **downward facing arrow icon** next the filter, allows you export the data you select to an excel spreadsheet.

How to Create a New Chemical Inventory

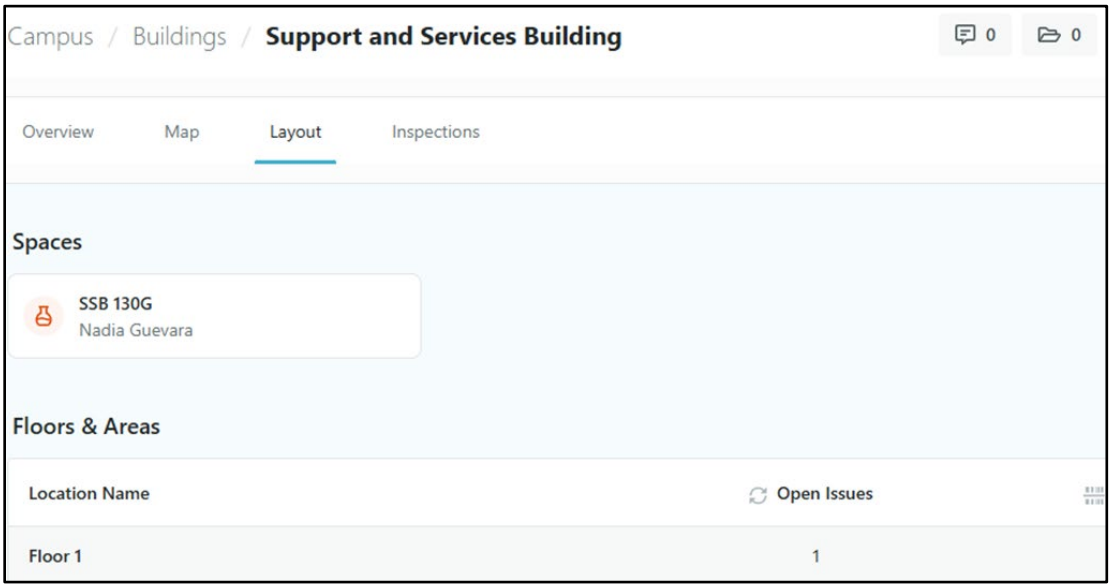
1. Navigate to the **Chemical** section located in the left navigation menu.
2. Locate and click on the **New Container** button situated in the upper right corner of the screen.
3. Search for the specific **Type** of chemical container you wish to add to your inventory by typing the name of the chemical. The system will assist you with your search as names of chemicals already uploaded will start to populate based on characters entered. Please note that your user role and permissions must allow you to create new containers. If you are unable to create a new container, contact System Administrator by sending an email to EHS@unt.edu
4. Once you have selected the appropriate chemical Type, proceed by entering **all relevant details for the container or containers** of chemicals you intend to add to your inventory, make sure to scroll down the entire form to ensure all known information on the chemical is recorded accurately.
   ****If a chemical type is not available in the system**, this needs to be added by following the next steps:
   i. Navigate to the **Chemical** section located in the left navigation menu.
   ii. Click the **Types** tab in the horizontal menu across the top of the page.
   iii. Click on the **New Type** button located in the top right corner of the page.
   iv. A new screen will appear with two options: **Search** and **Manual**. Select **Manual.**
   v. A new screen will appear for the **New Chemical Type**, all fields must be completed: **Basic Information, Container Configuration** – *Track Items* must be checked- always, **Verification Frequency** must be set to *Annually*, complete all **Additional Details, HazWaste Information, Physical Properties,** and **Classifications** as appropriate for the chemical.
   vi. Click on **Add Safety Information** and complete all **GHS Information** and **NFPA 704** information sections as appropriate for the chemical.
   vii. Once the new chemical type has been added, **return to step #2** of this section to continue building your chemical inventory by adding additional chemical containers.
5. The **count** field enables you to add multiple containers that share identical details all at once. For example, if you are adding an entire case containing several identical containers, you can specify the quantity of containers in the case to add them all at once.
6. The **Maximum Capacity** and **Unit of measurement** must be entered for the chemical in the container.
7. The precise location where the container is stored must be included. Under the **Space** field, the system will display your designated labs only. Select the appropriate lab.
8. **Additional Location Details**, to further detail the storage location, you can add supplementary information such as "Cabinet 1, Shelf 3," which helps in precisely identifying where the container is kept within the broader location.
9. After filling out all the required information accurately, click the **Create Container** button. This action will officially add the chemical container(s) to your lab inventory.
10. **Repeat steps 2-9** for each chemical container in the assigned laboratory.
11. There is no need to add SDS to each chemical entered when completing your chemical inventory by the annual deadline. EHS runs an annual SDS verification for all chemicals within the system shortly after the chemical inventory deadline.
12. To add a **Safety Data Sheet** to any new chemicals recorded in your chemical inventory (see section on **How to Add SDS to a Chemical**)
13. Once the chemical inventory is complete, **review** your lab information and membership (see **Lab Information and Membership** section).

How to Conduct a Chemical Inventory Reconciliation/Update

1. Navigate to the **Campus** section located in the left navigation menu.
2. The **Buildings** landing page will display the list of buildings you have access to within the system.
3. Click on the **building name.** If assigned labs are in more than one building, the reconciliation must be performed for each lab following all the steps. If you are unable to see all the buildings or labs needed, contact System Administrator by sending an email to EHS@unt.edu
    a. Landing page for the selected building will display all information you have access to, building information, assets, chemical containers, open issues, SDS, and HazWaste containers. There are 4 tabs in the horizontal menu: **Overview**, **Map**, **Layout**, and **Inspections**.

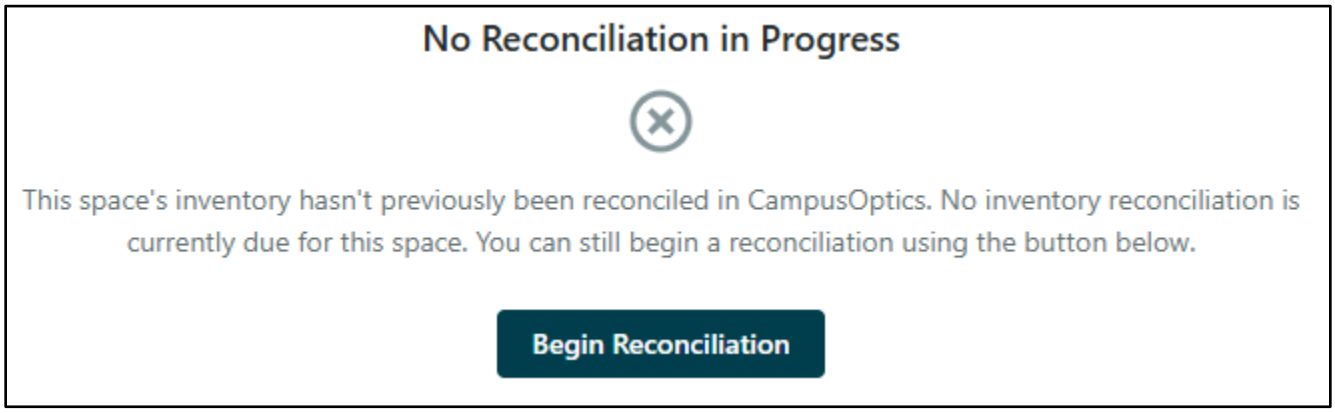


4. Click on the **Layout** tab. The assigned labs are displayed under the **Spaces** section.



5. Information available for the lab is displayed in sections, basic information, UNT members associated with the lab, chemical inventory details, and more.
    a. 5 items are available on the horizontal menu on the top: **Overview, Members, Chemical Amounts, Reconciliation, Inspections**.

6. Click on the **Reconciliation** tab and click on the **Begin Reconciliation** button.



The list of chemicals available for the lab will display and allow for changes to be recorded. Review all fields available for full understanding of reconciliation process:

- **% complete**: keeps track of the reconciliation progress
- **Remaining, Confirmed and Removed**: keeps count of the chemical containers that have been reconciled for the lab.
- **Abandon**: cancels the reconciliation process. Reconciliation will need to be restarted if abandoned without completing the reconciliation process.
- **Quick Scan**: allows for the reconciliation of a chemical container by scanning a barcode or entering the barcode number.
- **Refresh List**: saves and displays all changes made to the list of the chemical containers displayed for the lab.
- **Full Screen**: allows for the chemical container list to be shown as a full screen to ease the reconciliation process.
- **Chemical container list**: all items previously reported as part of the chemical inventory are displayed, information includes the name of chemical in the container, any barcodes that may have been included, lab where container is located, manufacturer name, and amount of chemical last recorded.
- **Actions** button**:** allows the user to delete or confirm the chemical container as an inventory.

7. Review and reconcile all chemical containers listed by marking the appropriate action on the Actions button:
    a. **Remove** the container if this is no longer in your lab and has properly been disposed.
    b. **Confirm** the container if this remains in your lab.
    c. Review all containers and click **Complete** button on top right corner, this completes your chemical inventory reconciliation.
8. Once the chemical inventory reconciliation is complete, **review** your lab information and membership (see **Lab Information and Membership** section).

How to Create a New Chemical Type

When creating a new chemical inventory and cannot locate a specific chemical within the system, a new chemical type must be created. The following steps must be taken when adding a new chemical type:

1. Navigate to the **Chemical** section located in the left navigation menu.
2. Click the **Types** tab in the horizontal menu across the top of the page.
3. Click on the **New Type** button located in the top right corner of the page.
4. A new screen will appear with two options: Search and Manual. Select **Manual.**
5. A new screen will appear for the **New Chemical Type**, all fields must be completed: **Basic Information, Container Configuration** – *Track Items* must be checked- always, **Verification Frequency** must be set to *Annually*, complete all

Additional Details, HazWaste Information, Physical Properties, and **Classifications** as appropriate for the chemical.

6. Click on **Add Safety Information** and complete all **GHS Information** and **NFPA 704** information sections as appropriate for the chemical.

How to Edit Chemical Information

When a chemical inventory has already been established and edits are needed to the information entered on any of the chemicals, there are two types of edits that can be completed:

- **Chemical container edits** - these relate to a chemical inventory item for a specific lab, including container size and volume, expiration date, location on campus, hazard classification, department, etc.
- **Chemical type information edits** – these edits relate to the chemical itself and impacts all chemical inventories across campus, these edits include CAS Numbers, chemical phase, waste characteristics, classifications, safety information, schedules, GHS information, physical properties, and NFPA 704 information.

**If unsure what type of edits are appropriate for your item, contact EHS team members at EHS@unt.edu, a team member will direct you to the appropriate edit type to meet your needs.

To edit a chemical container:

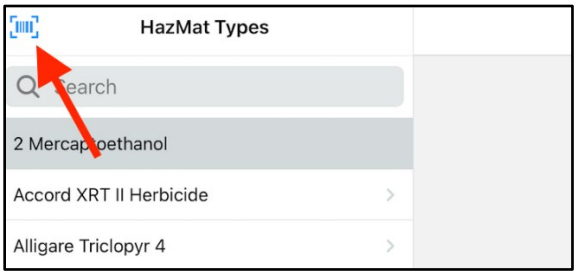
1. Navigate to the **Chemical** section located in the left navigation menu.
2. From the **Containers tab**, locate and click on the chemical container that requires edits.
3. Locate the **Actions** button, click on the button and a small menu window will appear with the items available for that container.
4. Click on **Edit Details**, a slider will appear with the information available to edit. Review information, make appropriate edits, and click the **Update Container** button at the bottom of the screen.

To edit the information for a chemical type: (this will impact the chemical information for all chemical inventories reporting the same chemical in their inventories)

1. Navigate to the Chemical section located in the left navigation menu.
2. From the **Types** tab, locate and click on the chemical container that requires edits.
3. Locate the **Actions** button; click on the button and a small menu window will appear with the items available for that container.
4. Depending on the edits needed, select from **Edit Details**, **Edit Safety Information**, **Edit Citations** or **Manage Manufacturers**.
5. Review information, make appropriate edits, and click the **Update Type** button at the bottom of the screen.

How to Add a Barcode to a Chemical Container

- Barcodes allow you to manage a chemical inventory with the use of the CampusOptics app on the field, removing the need to be at a desktop to complete a chemical inventory or reconciliation.
- Barcodes are only added to chemical containers and not chemical types; therefore, barcodes are only associated with your own chemical inventory.
- If you have associated barcodes with your chemical containers, you are able to navigate directly to any given container record by selecting the barcode icon in the upper left of the screen and scanning the barcode through the CampusOptics app which is available to upload to University of North Texas owned mobile devices.



How to Duplicate a Chemical Container

The system allows for a quick duplication of identical chemical containers already included in a chemical inventory. When a case of several identical containers is present in the laboratory, all must be recorded individually by following the next few steps:

Adding Multiple Identical Containers to a new Chemical Inventory

1. Navigate to the **Chemical** section located in the left navigation menu.
2. Locate and click on the **New Container** button situated in the upper right corner of the screen.
3. Search for the specific **Type** of chemical container you wish to add to your inventory by typing the name of the chemical. The system will assist you with your search as names of chemicals already uploaded will start to populate based on characters entered. Please note that your user role and permissions must allow you to create new containers. If you are unable to create a new container, contact System Administrator by sending an email to EHS@unt.edu.
4. Once you have selected the appropriate chemical **Type**, enter the total number of identical containers you want to add to the inventory in the **Count** field.
5. Proceed by entering **all relevant details** for the container or containers of chemicals you intend to add to your inventory, make sure to scroll down the entire form to ensure all known information on the chemical is recorded accurately.
6. After filling out all the required information accurately, click the **Create Container** button. This action will officially add the chemical container(s) to your lab inventory.

Adding Multiple Identical Containers to an Existing Chemical Inventory

1. Navigate to the **Chemical** section located in the left navigation menu.
2. From the **Containers Tab**, locate and click on the chemical container you need to duplicate.
3. From that specific container, click the **Actions** button and select the **Duplicate Container** option. Selecting the **Create Secondary Container** option allows you to duplicate the same chemical type but different size or chemical amount.
4. Double check all container information and click **Create Container.**
5. **Steps 2 and 3** above must be repeated for each new container to be added.

How to Create Secondary Container Labels

Secondary container labels can be created in the system when these have been damaged or are no longer readable and new labels need to be added to containers.

1. Navigate to the **Chemical** section located in the left navigation menu.
2. From the **Containers** tab in the horizontal menu across the top of the page.
3. Locate the **Actions** button; click on the button and a small menu window will appear with the items available for that container.
4. Select **Create Secondary Container Label**
5. Follow the system prompts and click on **Generate Labels**, adequate label sheets for selected size will be needed when printing.

How to Convert an Existing Chemical Container to HazWaste

All chemical containers must be converted into HazWaste when no longer needed in the lab and need to be properly disposed of. The HazWaste option through your chemical inventory is only to be used for original containers.

*****For containers with mixed chemicals and non-original containers, the **Hazardous Waste Pickup Requests** must be used, these requests are located in the RMS Hazardous Waste Management webpage.***

To convert to hazwaste: FOR ORIGINAL CONTAINERS ONLY

1. Navigate to the **Chemical** section located in the left navigation menu.
2. From the **Containers** tab in the horizontal menu across the top of the page, select the specific chemical container that needs to be disposed.
3. Click on the **Actions** button and select **Convert to Hazwaste** action from the menu.
4. Click on the **Ready for Pickup** option.
5. Review the information and complete all fields as appropriate. Make sure to scroll down the form to complete all fields.
6. Click **Convert** button.
7. The system creates a hazwaste container with appropriate naming conventions and a request for pickup is immediately sent to the EHS team.

SDS Portal

CampusOptics has an SDS library system available to UNT members. The library is built from all the SDS that are added to the chemicals part of chemical inventories and the annual SDS verification review conducted by the EHS Team.

- The SDS portal hyperlink can be posted publicly and external to the system, so SDS information remains available to our UNT community members as needed and required.
- Post the SDS portal hyperlink in your labs to direct students and faculty members to the SDS Portal.
- When using the SDS portal, anyone can search for chemical information, but location of chemicals is not made available. There is no information regarding faculty members, lab locations, or chemical amounts specific to chemicals. This portal is only used to access the SDS sheets for the chemicals.

There are a few options for accessing the SDS portal:

1. Risk Management Services website
    a. Navigate to Risk Management Services website, on the landing page, locate and click on the SDS Information button
    b. Click on the SDS Portal
    c. Type the **chemical name** in the search bar, **Basic** and **Advanced** search options are available.

2. From the CampusOptics interface
    a. Navigate to the **Chemical** section located in the left navigation menu.
    b. Click the **Safety Data Sheets** tab in the horizontal menu across the top of the page.
    c. Locate SDS Portal button on the top right corner of the page.
    d. Type the **chemical name** in the search bar, **Basic** and **Advanced** search options are available.

How to Add a New SDS

A Safety Data Sheet (SDS) needs to be available for all chemicals in the system. When a chemical is identified as missing an SDS, one should be added to ensure a complete SDS library is always maintained.

To add a new SDS:

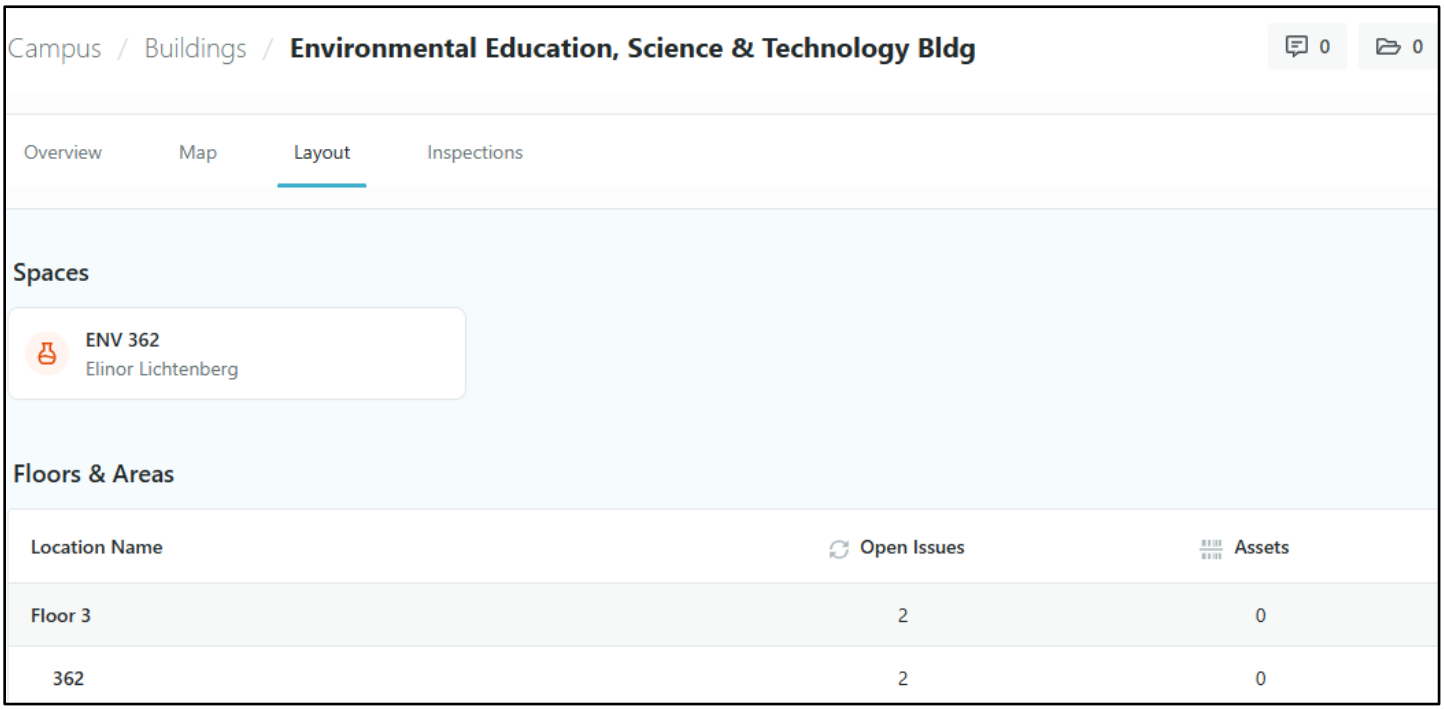
1. Navigate to the **Chemical** section located in the left navigation menu.
2. Click the **Safety Data Sheets** tab in the horizontal menu across the top of the page.
3. Click on the **New SDS** button located in the top right corner of the page.
4. From the **Manual Entry** option, search for the chemical.
5. **Search the internet** for the appropriate SDS from a reliable source and **paste the hyperlink** to the pdf file. Note that **hyperlinks are the preferred method** and source for adding an SDS to a chemical as uploaded files cannot be verified by the system during the annual SDS verification process that is conducted by the EHS team.
6. Add the **manufacturer** information.

7. Set **Revision Date** to a year from the date you added the SDS.
8. Click **Create Safety Data Sheet**.

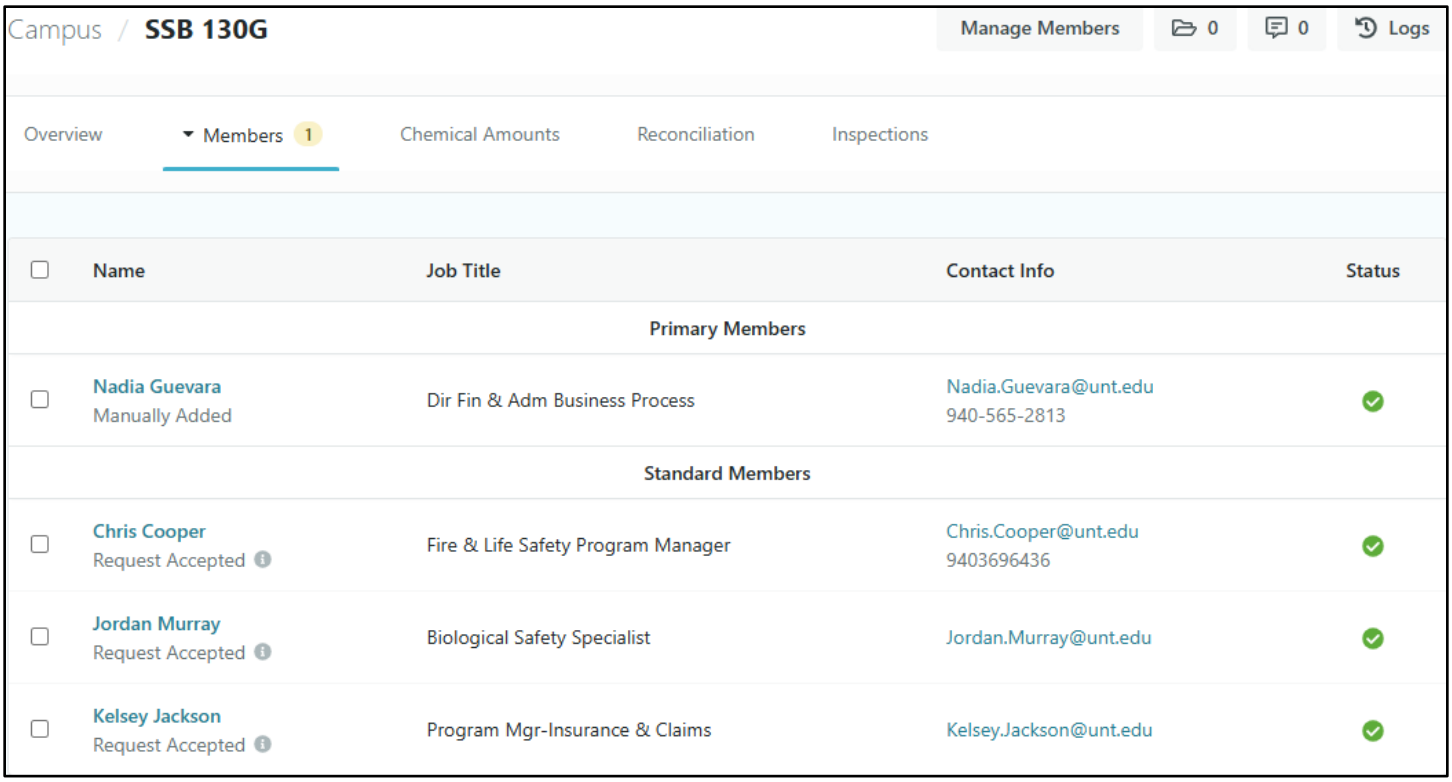
How to Review Lab Information and Membership

All lab spaces are assigned to Principal Investigators as primary members. Additional members including students, faculty or staff can be added to any lab space to assist with chemical inventory management responsibilities.
Laboratory information and membership should be reviewed on a regular basis to ensure those assisting with management tasks are added and granted appropriate access to their assigned lab space.
To review lab information:

1. Navigate to the **Campus** section located in the left navigation menu.
2. The landing page displays the name of the building where the assigned lab space(s) are located.
3. Click on the **building name**; review the information under the **Overview** tab.
4. Building information available is displayed including any chemical containers.
5. Click on the **Layout** tab, this displays information on the lab space assigned to you. If the list is not accurate, contact a member of the **EHS team** at EHS@unt.edu, a member of the team will ensure that lab assignments are corrected.



6. Click on the lab number you need to review. These are displayed under the **Spaces** section.
7. The **Overview** displays the information available for the lab selected. The horizontal menu on the top of the page includes categories of information.
8. Review the **Members** section, individuals associated with the lab are displayed. These are broken down by Primary Members and Standard Members. Any UNT members with chemical inventory management responsibilities must be added to the specific lab space to ensure access is granted to perform chemical inventory tasks.

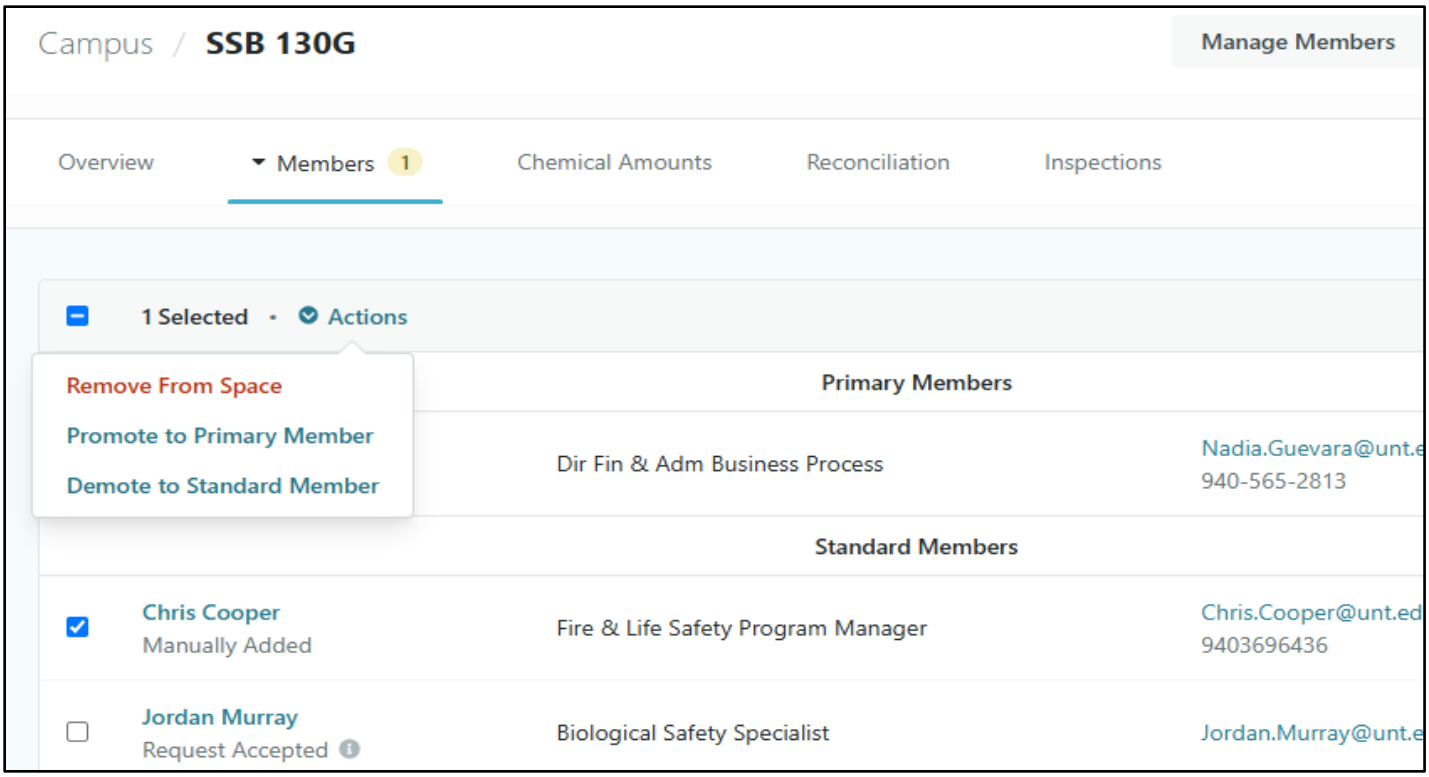


9. There are two different types of members:
    a. Primary Members – maintain control of the information related to the lab, chemical inventory, and memberships. Only primary members can add/remove/change member assignments to the lab. Principal Investigators are primary members.
    b. Standard Members – have access to all lab and chemical inventory information and functionalities but no access to add/remove/change members of the lab.

How to Remove/Modify Existing UNT Lab Members

Only Primary members can make changes to the lab membership. To change the membership of an existing member from the lab:

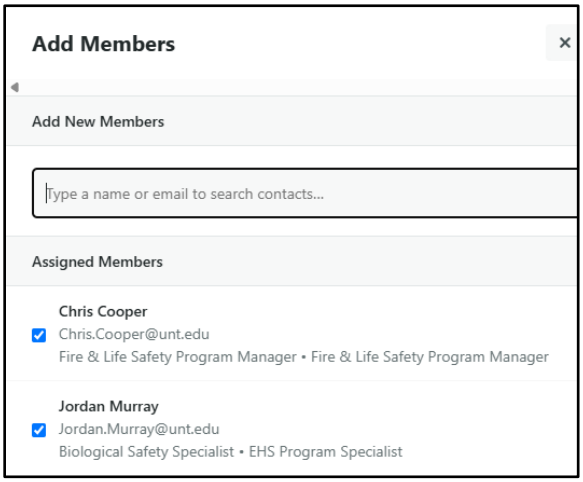
1. Navigate to the **Campus** section located in the left navigation menu.
2. The landing page displays the name of the building(s) where the assigned lab space(s) are located.
3. Click on the **building name**, click on the **Layout** tab, and **select** the appropriate **lab** from those listed under the **Spaces** section.
4. Click on the **Members** tab and select **All Members** from the drop-down menu.
5. The system will display all the members added to your lab. These are separated between Primary Members and Standard Members.
6. **Check the box** for the member's information you need to modify. A blue **Actions** button will appear on the top of the list.
7. Select the option for the change needed, this can be to remove, demote or promote a member as needed.
8. Review the changes to the list to ensure the lab membership list is accurate.



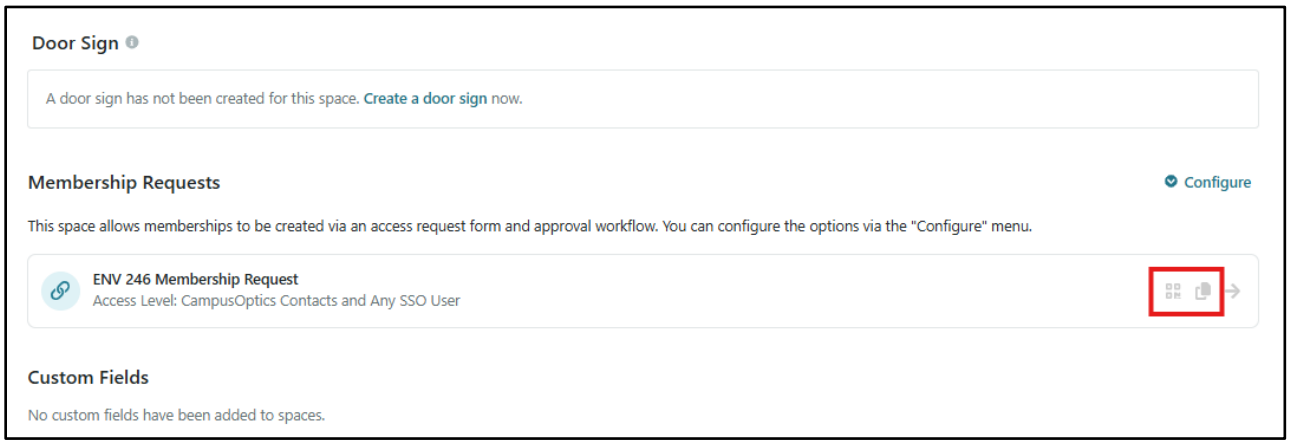
How to Add a New Member to a Lab

Only Primary members can make changes to the lab membership. To add a new UNT member to a lab:

1. Navigate to the **Campus** section located in the left navigation menu.
2. The landing page displays the name of the building(s) where the assigned lab space(s) are located.
3. Click on the **building name**, click on the **Layout** tab and **select** the appropriate **lab** from those listed under the **Spaces** section.
4. Click on the **Manage Members** button on the top right corner of the page, a slider screen will appear; type the name of the person to add on the **Add New Members** search bar. The system populates the names of UNT members already in the system.
    a. **If name is found**: click on the name of the person, this is immediately added to the lab and name will appear on the Assigned Members list:



b. **If name is Not found**: close the **Add Members** slider screen and click on the **Overview** tab once again.
   i. Locate **Membership Request** section in the center of the screen (below the Door Sign section)
   ii. Locate the CR code or hyperlink for your lab membership request form (see red box in image below)



   iii. Copy and paste the form hyperlink or QR code onto an email and send directly to the member you need to add to the lab. Only UNT members can be added to the lab membership.
   iv. The UNT member must complete their membership request form.
   v. Request form will go directly to the EHS team, a member of the team will add the new person to the system, add them to your lab, and grant the appropriate access to complete necessary chemical inventory management tasks.

How to Create a Door Sign…feature will be available at a later date

Additional work remains to be completed to ensure this system's functionality captures all information needed for the lab door sign. Information will be made available once the workflow has been established.