

Chemical Inventory Management System

RSS

October 21, 2024

RSS 5.10.3



Purpose:

To ensure the safety of employees and students working with regulated materials. TRU is committed to providing the necessary resources, training and practices to ensure effective chemical safety management, to meet the Occupational Health and Safety Regulation, [Section 5: Chemical Agents and Biological Agents](#).

Roles and Responsibilities:

The University acting through administrative heads is responsible for:

- Providing a safe, healthy, and secure working environment.
- Ensure adequate resources are available to implement appropriate procedures and controls.
- Provide support to RSS and through RSS, support the Departments, and Supervision in the implementation and management of the Chemical Management Program and System.

Risk and Safety Services Responsibilities:

- Develop, oversee and maintain the Chemical Management Program and System.
- Act as system administrators for the HECHMENT system.
- To provide oversight and support for the program.
- Liaison with the executive team as necessary to ensure resources required to support the program are available.
- Collaborate, conduct, or assist in the audit process.
- Provide and assist with the identification, selection and implementation of various controls as required.
- Provide support as required to department leaders in implementing their departments inventory.
- Ensure appropriate training is provided for all those involved in the Chemical Management System.
- Ensure records are kept of all training, education and tracking documents.
- Follow up on program compliance and work with the TRU community to ensure continual improvement of the program.

Supervisor/ Manager/ Dean/ Faculty/ Researcher (supervising and or teaching students) * responsibilities:

*For simplicity, all the above positions will be referred to as supervisor or supervision in this document.

- Ensure there is a resource available to assist in maintaining their departments Chemical Management System.



- Assign a responsible person or Principle Investigator for their departments/faculty's inventory (i.e. lab techs, researchers, etc.) and notify RSS
 - Must provide the employees full name, department, location of authority (room numbers/full or partial department, etc.) and job title.
- Ensure that their departments inventory is maintained as per the requirements of this program.
- Ensure that their employees complete the training and follow the procedures.
- Maintain all records (such as training records, audits, corrective actions implemented, action logs etc.) for department and employees as required.

Responsible Person/Principle Investigators (PI's) – Researchers/Assigned Lab Techs/Supervisor/Faculty member etc.

- Complete the training.
- Follow the Program requirements.
- Maintain your area of authorities' inventory – adding, transferring, and removing inventory as needed from your space/lab.
- Audit your inventory at least annually to ensure it is accurate and up to date.
- Researchers can assign a designate to manage their inventory on their behalf (i.e. a research assistant) – must notify RSS at safety@tru.ca to request that this responsibility is being delegated and to ensure that they have appropriate access.
 - Note: Research PI's will not lose their Responsible Person access, they will just be able to allow another to also have this access. Access can be removed at any time upon request or at RSS discretion.
- Do not take chemicals that are not assigned to your department/area/lab.
- Ensure that all barcodes are removed from empty containers and attach the old barcode to the Chemical Inventory Management Form, posted in the labs/studios.
- Report concerns to your Supervisor and RSS.
- Report any missing chemicals to RSS.

Worker Responsibilities

- Complete the training.
- Follow the Program requirements.
- Do not take chemicals from the inventory without barcodes.
- Do not take chemicals that are not assigned to your department/area.
- Ensure that all barcodes are removed from empty containers and attach the old barcode to the Chemical Inventory Management Form, posted in the labs/studios.

- Report concerns to your Supervisor and RSS.
- Report any missing chemicals to RSS.

TRU's Chemical Management System: HECHMET

HECHMET (Higher Education Cooperative for Hazardous Material and Equipment Tracking) is a consortium of Canadian universities using Vertère Inventory Management (VIM) software system, facilitated and hosted through Concordia University.

This web-based hazardous material inventory management system provides a comprehensive solution to centralized monitoring, tracking hazardous materials in campus wide and effectively managing chemical inventory in a laboratory.

- Dynamic system accessible to PIs, OHS, first responders and regulators as required.
- Immediate access to regulator data, compliance with federal and provincial legislation.
- Comprehensive inventory security control.
- More accurate assessment of emergency response needs.
- Reporting capability.
- Easy to manage chemical inventory for laboratory – add, view, and update.
- Barcode tracking chemicals from receipt to disposal.
- Perform quick and accurate physical inventory reconciliation.

Thompson Rivers University joined HECHMET in late 2021. RSS aids in training, and guidance for the implementation of HECHMET-VIM that works best for each individual department. The use of software is simple, flexible, and durable.

The link to HECHMET-VIM: <https://apps.hechmet.ca/Login.aspx>

Chemicals to be entered into the inventory system are:

- Flammable/combustible liquids
- Flammable solids
- Oxidizers
- Organic peroxides
- Toxins/poisons (i.e. biological toxins, dyes, adhesives)

- Corrosives
- Controlled products and substances
- Working dilutions/compounds for labs/research prepared on site (optional)

What is NOT included:

- Stains and dyes for microscope slides
- Tissue culture supplies
- Non-hazardous buffers
- Biological growth media
- Enzyme preparations
- Products available for retail purchases (i.e. household cleaners, paint thinners)
- Hazardous chemicals under 1g or 1ml in weight/volume (unless requested by a department/PI)
- Radioactive materials
- Biohazardous materials
- Non-hazardous/non-regulated substances (i.e. glucose, sodium bicarbonate)

Department Specific Procedures

GENERAL PURCHASING REQUIREMENTS

- When ordering chemicals ensure that purchase requisitions include the following information:
 - Department (i.e. Biology, Microbiology, Chemistry etc.)
 - Name
 - Delivery location – do not have chemicals delivered to offices. Chemicals are to be delivered to the Chemical Storage Facility OR a lab

SCIENCE

- All science chemicals are to be delivered to the chemical storage facility, they will arrive barcoded and assigned to the CSF.
- When a chemical is required in a lab the instructor or PI is required to notify the

chemistry Lab Tech(s) who will bring the chemicals to the requested space. The Lab Tech will then re-assign the chemical in the inventory system to the new location and department.

- When a chemical is empty/waste, complete the chemical inventory management form (paper or through MS Forms) the Chemistry Lab Tech will update the system to transition the chemical out of the available stock.
 - All active chemical user labs will have paper copies of the forms kept next to where waste is temporarily stored, Instructors/PI's are to notify the lab tech(s) when the waste ready to be moved (i.e. the waste container is full) so that the waste can be moved to the CSF and the inventory updated.
 - If a digital form is preferred (this option is also available)
 - The lab techs will periodically check on both the physical forms and digital.
- Working stock can be added into the system for tracking, lab techs who prepare the stock are encouraged to barcode and add these to the system for their areas.

RESEARCH

- Individual researchers are responsible for their individual inventories. Research PI's will be given access to the system that will allow them to add, move and manage their inventories.
 - Only RSS has administrator rights to the system, which allows them full access to all inventories. This means no one other than the assigned PI can do anything BUT view another department/researchers inventory.
 - Others can be added to a researcher's inventory upon request to RSS, however permission from all parties must be provided. Access can be removed at any time and a PI can request restricted access to their inventories.
- All research PI chemical will arrive at their designated delivery location (as specified on the order requisition) with a barcode attached. If this delivery location is the final chemical location, no immediate action is required. If the delivery location is a storage area (i.e. CSF) once the chemical is moved to the location of use, the system MUST be updated to reflect the change in location.

VISUAL/PERFORMING ARTS

- Chemicals ordered will be delivered to the specified locations on the order requisition. The warehouse receiver will apply the barcode and enter the delivery location into the system.

- The Safety Technician will assist in inventory control with the support of FA instructors and technicians. All inventory requests are to be sent to RSS.
- All studios where chemicals are used or stored will also have paper copies of the chemical inventory management forms. RSS will check on these forms once a month (or upon request) and update the system accordingly.

Please contact RSS, safety@tru.ca for additional information and assistance with the chemical inventory for your laboratory, studio or research area.

Education and Training

All employees who work with HECHMET inventory chemicals at TRU will be required to take review this procedure and follow the requirements outlined above.

PI's/Lab Techs/Faculty/responsible person(s) that are required to maintain a chemical inventory are to complete the training and follow the guidelines outlined.

Department heads are to ensure that all the required employees have completed the required training. Records will be kept by the department and refresher training will be required every 3 years or as needed.

Annual Review

On an annual basis, RSS will complete a formal review of the Chemical Inventory Management program to ensure it is up to date and working effectively. The JOHSC may be consulted as a part of this review process. This review may also take place at any time if:

- A change in regulatory requirements could affect this program or procedures.
- Aspects of this program or its procedures are reported to be working ineffectively.
- Or an incident occurred that involved aspects of this program.

Revision Control

| Date of Revision: | | Position of Approver: | | Signature: | |
|-------------------|---------------------------------------|---------------------------------------|-------------------------|------------|--|
| August 31, 2022 | | Manager, Health, Safety & Environment | | | |
| Version: | Author: | Date: | Description of Version: | | |
| 1&2 | Manager, Health, Safety & Environment | August 31, 2022 | New Program | | |
| 3 | Safety Advisor | Oct. 21, 2024 | RSS update | | |