



January 2012 Safety Topic of the Month

Chemical Inventories

Effective control of chemical inventories provides numerous opportunities for waste and cost reduction and also enables us to go beyond compliance to implement environmentally preferable purchasing, chemical exchanges, and other waste minimization and pollution prevention initiatives. Gaining control of our chemical inventory will enable us to reduce overall chemical use which reduces risk, costs and regulatory reporting requirements. Using a software based system improves regulatory reporting accuracy, enhances lab safety by providing direct links to material safety data sheets (MSDS) and emergency response information, assists with facility planning and increases efficiencies in tracking and managing chemical inventories.

The Environmental, Health and Safety (EHS) department has established a working group to review options for upgrading our current chemical inventory management system. We would appreciate your input and suggestions on how you would like to see that system function.

Typical Features of Chemical Inventory Software Systems

- Easy to use web interface with user access to inventory controlled by profile-based chemical owner and location authorizations
- Pre-populated database of chemicals with links to hazards, properties and regulatory reporting
- Chemical tracking by container, location, department and owner
- Direct links to material safety data sheets
- Barcodes used to identify individual containers
- Chemical shelf-life tracking and notification of expired chemicals
- Identification of surplus chemicals to reduce waste disposal and purchasing costs
- Chemical inventory reconciliation

Discussion Topics

- 1) Review current chemical inventory and identify expired shelf-life chemicals and chemicals that will not be used. Small amounts (less than 20 bottles) can be turned in through routine HW disposal procedures. For large amounts, contact EHS for assistance with disposal. Do not consolidate chemicals that need special storage conditions or are extremely hazardous, those containers should be labeled as waste and stored in place prior to pick-up by the hazardous waste contractor.
- 2) Review chemical management needs and contact EHS if you have specific requests for functionality in the inventory software.
- 3) Discuss experiences with chemical inventory management at other institutions and provide feedback to the EHS department.

References

Prudent Practices - http://www.nap.edu/catalog.php?record_id=12654

ChemSW – Best Practices for Managing Laboratory Chemical Inventories

<http://www.chemsw.com/White-Papers/Managing-Chemical-Inventory-.aspx>

ChemTracker Consortium – The higher education collaboration for chemical inventory management and regulatory reporting.

<http://chemtracker.stanford.edu/wp-content/uploads/GibbsChemInv.pdf>