

very useful for CEMS users when searching for a chemical because it is a unique identifier; there is no ambiguity with spelling or synonyms. A CAS is always used in CEMS without hyphens. So, if you perform a search using the CAS listed above, you would enter 144558 in the CAS line of the search feature.

Chemical Minimization

CEMS can be used to track the age of your chemical inventory. Old chemicals that are no longer useful to a researcher can be easily identified and designated as waste. This reduces the hazards in the laboratory and helps avoid higher future disposal costs.

Safety Information for the Community

CEMS is not only a useful tool for University faculty and staff to manage chemical inventories; it is also used by local authorities for emergency response planning. The Durham Fire and Police Departments have access to data in CEMS, and have successfully used it in situations that required immediate, accurate information about the contents of a lab, and who to contact in an emergency. UNH Facilities Services has also used CEMS to identify possible hazardous material exposure for its employees and has been able to provide specialized training and personal protective equipment to those in need.

The data in CEMS is only useful if it is accurate. Please schedule a time to be trained and help contribute to the continued success of this program.



UNIVERSITY of NEW HAMPSHIRE

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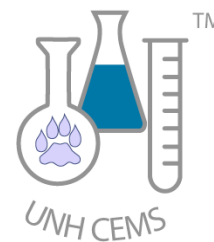


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UNH CEMS

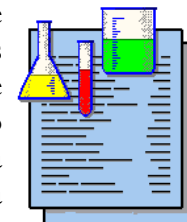
CEMS is a web-based Chemical Environmental Management System designed by the UNH Office of Environmental Health and Safety (EHS) and the Research Computing Center (RCC). CEMS enables users to manage chemical inventories and it is a source of safety information for the UNH community. You should use CEMS if you or your staff:

- Use hazardous chemicals, radioactive sources or infectious agents;
- Work in a laboratory where hazardous materials are present;
- Are listed as a contact person on a door caution sign; or
- Generate hazardous waste.

CEMS offers many useful tools you can use to manage your chemical inventory. Below are some of the features available to users.

Surplus

Users may choose to designate any item in their inventory as surplus. By doing so, you are offering this item for free to CEMS users who may have a need for the material. This is a valuable tool for those who have unwanted chemicals that are still usable and it can reduce the cost of hazardous waste disposal. Any other user may search



the surplus list and acquire a chemical on the list by contacting the present owner.

Chemical Search

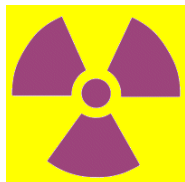
The chemical search feature allows users to query CEMS for chemicals at UNH based on a variety of criteria. For example, users can search by chemical name, CAS, product number, manufacturer, etc. The search feature is useful for quickly locating items in your own inventory and for finding a chemical that you may borrow from another user rather than buying a full container.

Material Safety Data Sheets

CEMS maintains a large database of Material Safety Data Sheets (MSDSs). A MSDS is found as a link on the details screen of an inventory item, or by using the MSDS search feature. EHS has also developed Hazardous Chemical Fact Sheets that have similar information to an MSDS, but in a more readable format. Fact Sheets are also linked on container detail pages and can be found with the MSDS search function.

Radioactive Material

CEMS tracks radioactive material inventories, waste disposal and radioactive decay. Authorized users (AU) can view total activity of their radioactive materials including sealed and unsealed sources. CEMS calculates decay for each isotope, giving an accurate summary of current activity. CEMS streamlines radioactive material orders by displaying the activity available for order by subtracting the AU's permitted allowance with their current activity.



Hazardous Waste

Requests to pick up hazardous waste can be made through CEMS. By using the online pickup request form, users can provide detailed information about their hazardous waste, which helps EHS schedule waste removal. Users can also view a history of their hazardous waste pick-ups. This is useful for users who wish to minimize their chemical waste generation over time, by analyzing their own waste streams.

The image shows a yellow form titled "HAZARDOUS WASTE" with the text "FEDERAL LAW PROHIBITS IMPROPER DISPOSAL". It includes fields for "Description:", "Short Date:", "Filed Date:", "Generator:", "Dept.", "Bldg.", "Room:", "Log # (EHS)", "EPA Hazardous Waste Code", and "Weight (kg)". There is also a note: "To comply with EPA law, EHS must receive this container immediately after it is filled. Call 2-3526 for hazardous waste removal." and a section for "For EHS Use Only".

Biological Agents

The CEMS biological module allows users to inventory infectious material, assign appropriate biosafety levels, review handling instructions and recommend personal protective equipment for each agent. This information is available to laboratory personnel and emergency responders.



Caution Signs

Caution signs are posted outside rooms that contain hazardous materials. Information on the signs is critical during response to emergency situations. Signs include the NFPA diamond, which rates the room based on its chemical inventory. Users can update their door signage in CEMS when contact information on the signs has changed, or when their chemical inventory has significantly changed.



Other features that make managing your inventory easy:

- Printer friendly display
- Excel file download option
- Sort inventory by multiple parameters
- Customizable inventory display
- Particularly Hazardous Chemicals identified
- Hide materials from general searches

Chemical Ordering

Orders for most new chemicals are shipped to the Chemical Transfer Station, operated by EHS. Orders for the Chemistry Department are shipped to the Chemistry Stockroom. Chemistry Stockroom and Chemical Transfer Station personnel barcode the chemical containers and enter them into CEMS. The Chemical Transfer Station delivers all orders on the same day they are received. Details on chemical ordering procedures are outlined in CEMS.

Training

Users new to CEMS can request a training session from EHS. Training sessions are available for groups or individuals and can be scheduled by calling EHS at 862-4041. Online CEMS tutorials are also available at <http://www.cems.sr.unh.edu> under the "Related Links" link located in the top right hand corner of the homepage.

Helpful Hint: Using a CAS

The Chemical Abstract Service, a division of the American Chemical Society, has assigned a unique registration number to millions of chemical compounds. This registration number is commonly referred to as a CAS. A CAS has up to nine digits and is divided by hyphens into three parts, for example, 144-55-8. The CAS is