



Chemical Inventory Guidance

It is a requirement of MIT's Chemical Hygiene Program to maintain a chemical inventory. This document defines what chemicals should be inventoried, the minimum information that is required to be tracked and how often it should be updated. It also suggests additional information that is recommended to be tracked and who to contact for help.

There are numerous benefits to keeping an inventory: potentially significant cost savings, knowing what is on hand and where to find it, ease of reporting on regulated chemicals and assisting emergency responders. In addition, the environmental benefits can be significant if fewer chemicals are purchased resulting in less hazardous waste generated.

- A.** What is the meaning of “chemical” in reference to the requirement to maintain a chemical inventory in each lab at MIT?
- Hazardous chemicals include any material that because of its quantity, concentration, physical characteristics, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released. These include, but are not limited to, laboratory chemicals; compressed gases; liquids under pressure; explosives; highly reactive, corrosive, flammable and toxic substances; and substances such as lubricating oils, dielectric oils, fuel oils, fuels and propellants. Inventoried chemicals can be in any physical state: solid, liquid (pure or mixtures) or gas (pure / mixtures / cryogenic).
- B.** What is the meaning of “inventory” in reference to the requirement to maintain a chemical inventory in each lab at MIT?
- A chemical inventory must include all purchased chemicals (as defined above)
 - Chemical inventories should also include engineered nanomaterials, both those that are purchased and those that are fabricated in the lab as described on ehs.mit.edu >> keyword search “Nanomaterials”
 - A chemical inventory should be maintained on a regular, ongoing basis, but at minimum updated annually by the end of September to meet regulatory requirements. However, it is highly recommended that each lab organize its inventory roles and procedures so that chemicals are routinely added and removed.
 - A chemical inventory must include the following information about each substance:
 - PI / Supervisor for the lab
 - Building-Room location for the chemical container
 - Chemical Name (not acronyms)
 - Amount (volume/weight and unit of measure)
 - It is highly recommended that the following information be tracked for each substance:
 - Concentration (for purchased dilutions / mixtures)
 - Physical State (solid, liquid or gas)
 - Number of containers
 - CAS Number
 - Expiration Date (when applicable)
 - The inventory software EHS Assistant (EHSA) is available for all labs to use for their chemical inventory. Users can extract regulatory data for Annual Chemical Reporting

This document was created using information from MIT's Chemical Hygiene Plan, [Prudent Practices in the Laboratory](#), and publicly available documentation from peer Institutions.



directly from EHSA as long as CAS #'s are added to the records of all chemicals that have them, with the exception of nanomaterials and description of use information required for some chemicals.

- Labs not using EHSA may find it convenient and time saving to provide their inventory to the EHS Office in Excel to complete their regulatory requirements.

C. You may wish to consult the EHS Chemical Inventory page (ehs.mit.edu >> keyword search "Chemical Inventory") for examples of chemicals that should be included.

EHS Staff can assist your lab getting started using the EHS Assistant Chemical Inventory platform by providing a demonstration, administering user access permissions, providing guidance materials, and uploading your initial well-formatted inventory. Please contact EHS at 617-452-3477 or email environment@mit.edu.