Purpose – The purpose of this document is to provide a uniform procedure to ensure that all chemicals stored and used at the Arizona State University MacroTechnology Works are included in the chemical inventories required by various EH&S regulations.

Scope – This document applies to all chemicals used or stored at the ASU MacroTechnology Works (ASU-MTW or MTW) including research and development, production, and laboratory chemicals used in all ASU-operated and all non-ASU laboratories.

Reference Documents –
ASU Policy EHS 104 (for ASU units)

Procedures –

1. All ASU laboratories at the MTW shall comply with the requirements of the ASU Laboratory Registration program, including the requirement for an annual inventory of all chemicals used or stored in each lab at the MacroTechnology Works.
   a. The inventory shall be compiled on a room-by-room basis and shall include all chemicals used/stored in the lab including those chemicals contained within equipment and hoods, chemicals in storage cabinets, daytanks, etc.
   b. Chemicals and gases within process or delivery piping should not be included in the inventory.
   c. Chemicals contained in dispense bottles (“squirt bottles”) are to be included in the inventory.
   d. If the quantity of a chemical in a partially filled container can be estimated with reasonable accuracy, then this information should be provided. If the quantity in the container can not be accurately estimated, then the “full” quantity must be reported.
   e. A copy of this inventory must be provided to the ASU Director of EH&S for the MacroTechnology Works in addition to the copy sent per the Lab Registration Program requirements.
   f. See the ASU EH&S website for the required forms and further information.

2. All non-ASU operations (tenants/lessees) at the MTW shall provide complete and accurate chemical inventories of all chemicals used or stored at the MacroTechnology Works on annual basis using the Excel template provided.
   a. The inventory shall be compiled on a room-by-room basis and shall include all chemicals used/stored in the lab including those chemicals contained within equipment and hoods, chemicals in storage cabinets, daytanks, etc. The hazard rating columns in the template must also be completed.
   b. Chemicals and gases contained within process or delivery piping should not be included in the inventory.
c. Chemicals contained in dispense bottles ("squirt bottles") are to be included in the inventory.

d. If the quantity of a chemical in a partially filled container can be estimated with reasonable accuracy, then this information should be provided. If the quantity in the container can not be accurately estimated, then the “full” quantity must be reported.

e. A copy of this inventory must be provided to the ASU Director of EH&S for the MacroTechnology Works.

3. Updates to these inventories may be required on a more-frequent basis in order to comply with EH&S regulations, required reports and submittals, code compliance studies, HMIS, etc.

4. Examples of chemicals to be reported include, but are not limited to: acids, bases, solvents, catalysts, reactants, precursors, photoresists, etchants, developers, mixtures, commercially available materials, gases (hydrogen, HPM gases, cylinder-supplied gases), vacuum pump fluids, coolants, cleaners, isopropyl alcohol solutions used for cleanroom cleaning, etc.

5. Examples of chemicals that do not require reporting are: water, piped non-hazardous gases (oxygen, argon, nitrogen, and compressed air), liquid nitrogen, properly labeled hazardous wastes, housekeeping chemicals such as floor cleaners, floor polishes, window cleaners, custodial supplies, etc.

6. The Excel template format is as follows:

<table>
<thead>
<tr>
<th>Building Name - MTW/575</th>
<th>Room #</th>
<th>Inventory Completed By (Name):</th>
<th>Date:</th>
</tr>
</thead>
</table>

*Please provide the numerical quantity in the container. For example 500.

**Please provide the units used to describe the quantity in the container. For example, Grams, Liters, etc.

An MSDS sheet must be on file for every hazardous material (ex. chemical, compressed gas, etc.)

<table>
<thead>
<tr>
<th>Chemical or Compressed Gas Name</th>
<th>Manufacturer Name</th>
<th>CAS #</th>
<th>*Quantity in Container</th>
<th>**Quantity Units</th>
<th>Number of Containers</th>
<th>NFPA Health Hazard Rating</th>
<th>NFPA Flammability Hazard Rating</th>
<th>NFPA Reactivity Hazard Rating</th>
<th>***NFPA Special Hazard Section</th>
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</table>

NFPA hazard ratings are found on material's MSDS sheets.

W = Water reactive
OX = Oxidizer
PY = Pyrophoric

Revised: 7/2/10

***Special Hazard Section Acronyms

W = Water reactive
OX = Oxidizer
PY = Pyrophoric