



## Chem Lab Programming Instructions

A critical first step in the plan design process is the establishment of proper building occupancy classification. The occupancy classification determines the standard to which your plans will be reviewed and the requirements for construction. This form is a guidance document which has been prepared to expedite the review process.

Complete a separate inventory for each laboratory or control area (or a single inventory for the entire building if control areas are not established). Group materials within each room by their primary hazards, i.e. flammable, oxidizer, corrosive, highly-toxic, etc. Small quantities in vials, alequots, samples, etc., may be grouped together according to hazard class and reported as miscellaneous materials, e.g. "Misc. Oxidizing Solids".

For pure chemicals, or aqueous mixtures of pure chemicals, enter the chemical name, chemical abstract service number (CAS#) and the approximate concentration, or range for the hazardous component. For mixtures enter the common or trade name of the mixture. Then list the components of the mixture and their respective CAS# and concentrations in the subsequent columns. Do not list water as a dilutant.

Enter the quantity of materials to be stored and/or used, and the units or measurement in the respective columns. Under the storage column enter the maximum amount that would need to be stored to provide a 30 day supply. Also, indicated if the materials shall be stored in an approved, listed hazardous materials storage cabinet. Under the use columns enter the quantity of materials that are actually "in-use" at any given time, e.g. that which is physically being handled or used by equipment. Enter separate quantities for use in closed systems, such as fume hoods, and for open systems, such as out on bench tops. (Refer to definitions below for "open-use" and "closed-use".)

**Closed Use** - Use of a solid or liquid hazardous material in a closed vessel or system that remains closed during normal operations where vapors emitted by the product are not liberated outside of the vessel or system and the product is not exposed to the atmosphere during normal use; and all uses of compressed gases. Examples of closed systems for solids and liquids include product conveyed through a piping system into a closed vessel, system, or piece of equipment; reaction process operations conducted within fume hoods, etc.

**Open Use** - Use of a solid or liquid hazardous material in a vessel or system that is continuously open to the atmosphere during normal operations and where vapors are liberated, or the product is exposed to the atmosphere during normal operations. Examples of open systems for liquids include dispensing from or into open beakers or containers not in a fume hood, equipment with open supply and drains connections such as HPLC's; dip tank operations; plating operations; etc.