


GENERAL CHEMICAL STORAGE GUIDELINES FOR LABORATORIES/STUDIOS/WORKSHOPS

Further information about chemical storage is available on the companion poster *Storing dangerous goods in laboratories, studios & workshops*. These documents are available at www.adm.monash.edu.au/ohse/documents.

Step 1: MINIMISE stocks of chemicals to simplify storage requirements

Step 2: IDENTIFY chemicals with special storage needs:

- **Highly toxic chemicals** ( LD50 ≤ 10 mg/kg by any route of intake)
Place in a locked cupboard
- **Poisons** (e.g. anaesthetics, inorganic cyanides)
Store according to the poster *Purchase and Storage of Scheduled Poisons*, and/or obtain advice from your OHS&E consultant
- **Highly volatile ('smelly') chemicals**
Store in a ventilated cupboard or a refrigerator (subject to Step 7 below)

Step 3: CLASS 4 DANGEROUS GOODS

Store in a separate labelled cupboard with no other classes, according to poster *Storing dangerous goods in laboratories, studios & workshops*.



Step 4: CHEMICALS 'IN USE'

Chemicals 'in use' are exempt from these guidelines (except class 4) and may be stored throughout the work area without segregation.

'In use' includes:

- Chemicals currently being used (i.e. most weeks), and
- Containers of ≤ 1kg or ≤ 1L, and
- Only one container of each chemical per person or work area.

Step 5: DRY CHEMICALS (Not 'in use'; all container sizes)

- Store **L**¹ quantities of dry chemicals alphabetically whether dangerous goods or not
- **M**¹ & **H**¹ quantities must be stored according to poster *Storing dangerous goods in laboratories, studios & workshops*
- **REMINDER:** Store Class 4 chemicals in a separate labelled cupboard with no other classes

Step 6: LIQUID CHEMICALS (Not 'in use'; all container sizes)

- Store **dangerous goods** according to poster *Storing dangerous goods in laboratories, studios & workshops*
- Segregate² dangerous goods from non dangerous goods

Step 7: SPECIALISED STORAGE

Ventilated cupboards

- Containers must be ≤ 4L, and
- **L**¹ quantities are the maximum allowable for each dangerous goods class in a cupboard
- Dangerous goods classes must be segregated²
- Spill trays must contain entire contents of container(s)

Intrinsically safe³ refrigerators/freezers

- Suitable for the storage of flammable liquids and solids
- Containers must be ≤ 1L, and
- **L**¹ quantities are maximum allowable for each class in a refrigerator/freezer
- Dangerous goods classes must be segregated²
- Spill trays must be able to contain entire contents of container(s)

Chemical storage cabinets

- Class 3 flammables cabinets must be located as far as practicable from ignition sources (refrigerators, power points, ovens, equipment that could cause sparks); 3m if possible
- Chemical storage cabinets must be located at least 1m apart
- A chemical storage cabinet must only contain a single dangerous goods class
- The maximum allowable capacity of a cabinet is 250L

Non-intrinsically safe³ refrigerators/freezers

- Not suitable for the storage of flammable liquids and solids
- Class 5, and 6 dangerous goods may be stored provided:
 - They do not have sub risk of class 3 dangerous goods
 - Containers are ≤ 1L, and
 - **L**¹ quantities are maximum allowable for each class in a refrigerator/freezer
 - They are segregated² from other classes
 - Spill trays must be able to contain entire contents of container(s)

1. **L, M & H** quantities for each class are defined in the poster *Storing dangerous goods in laboratories, studios & workshops*.
2. Segregation is achieved by storing chemicals in separate cupboards or in compatible spill trays on separate shelves or on the same shelf within a cupboard. At a minimum, spill trays must be able to contain the contents of the largest container within the tray.
3. Intrinsically safe refrigerators/freezers have no potential source of ignition within the chamber. Lights within the chamber, and refrigerators with cyclic defrost cycles, are not generally intrinsically safe. Non-intrinsically safe fridges and freezers that are located within laboratories must be labeled to indicate that they are not safe for the storage of flammables.
4. No chemicals, other than cleaning agents stored within spill trays, should be stored under a sink.