











STORING DANGEROUS GOODS IN LABORATORIES, STUDIOS & WORKSHOPS

Further information about chemical storage is available on the companion poster *General chemical storage guidelines for laboratories/studios/workshops*, including information about storage of chemicals in refrigerators and ventilated cupboards. All documents are available at <http://www.adm.monash.edu.au/ohse/documents>.

The three dangerous goods (DGs) storage categories, **Low**, **Medium** and **High**, refer to the total quantity of each class of substances stored in a specific laboratory, studio or workshop.

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.

DG Class	Description of Class	Storage Limits	Additional Requirements	
2	Gases  2.1  2.2  2.3	<ul style="list-style-type: none"> Gas cylinders must only be in a laboratory/studio/workshop if connected to a system or used on a regular basis Cylinders must be adequately secured around the body of the cylinder to prevent them falling Cylinders are not to be chained around either the neck of the cylinder or the fittings Each cylinder should have an individual chain 		
3	Flammable liquids  3	'In use' class 3 chemicals ¹ may be stored in each work area without segregation.		
		L ≤ 10L	<ul style="list-style-type: none"> Store in a labelled cupboard Segregate from other classes in the cupboard 	<ul style="list-style-type: none"> Approval of Safety Officer required for containers > 6L capacity
		M > 10L & ≤ 100L	<ul style="list-style-type: none"> Must be stored in a fireproof cabinet with no other classes 	
H > 100L	<ul style="list-style-type: none"> Special approval required from Safety Officer 			
4.1	Flammable solids  4.1	There are no 'in use' exemptions for Class 4 chemicals		
		L ≤ 500g	<ul style="list-style-type: none"> Store in a separate labelled cupboard with no other classes May be stored with L quantities of Class 4.2 and 4.3 DGs 	
4.2	Substances liable to spontaneous combustion  4.2	L ≤ 500g	<ul style="list-style-type: none"> Store in a separate labelled cupboard with no other classes May be stored with L quantities of Class 4.1 and 4.3 DGs 	<ul style="list-style-type: none"> Store away from water Limits do not apply to ≤ 10kg activated charcoal
		H > 500g	<ul style="list-style-type: none"> Special approval required from Safety Officer 	
4.3	Substances that emit flammable gases in contact with water  4.3	L ≤ 500g	<ul style="list-style-type: none"> Store in a separate labelled cupboard with no other classes May be stored with L quantities of Class 4.1 and 4.2 DGs 	<ul style="list-style-type: none"> Store away from water Metals used as a drying agent in a solvent vessel excluded from limits
		H > 500g	<ul style="list-style-type: none"> Special approval required from Safety Officer 	
5	Oxidising substances and organic peroxides  5.1  5.2	'In use' class 5 chemicals ¹ are exempt from these guidelines and may be stored in each work area without segregation		
		L ≤ 5L or kg	<ul style="list-style-type: none"> Store in a separate labelled cupboard with no other classes 	<ul style="list-style-type: none"> Store within non-combustible spill trays Provide adequate ventilation to prevent build up of fumes
		M > 5 & ≤ 25L or kg	<ul style="list-style-type: none"> Must be stored in a fireproof cabinet with no other classes Storage must comply with MSDS and supplier's recommendations 	
H > 25L or kg	<ul style="list-style-type: none"> Special approval required from Safety Officer 			
6.1	Toxic substances  6.1	<ul style="list-style-type: none"> 'In use' class 6 chemicals¹ are exempt from these guidelines and may be stored in each work area without segregation Notify Safety Officer and OHSE before purchase and/or use of scheduled carcinogens 		
		L ≤ 50L or kg	<ul style="list-style-type: none"> Store in a labelled cupboard Segregate from other classes in the cupboard 	
		H > 50L or kg	<ul style="list-style-type: none"> Special approval required from Safety Officer 	
		<ul style="list-style-type: none"> 'In use' class 8 chemicals¹ are exempt from these guidelines and may be stored in each work area without segregation The maximum amount of each of the liquid and solid corrosives may be stored within a laboratory, eg you may have 10L mineral acid + 10L organic acid + 50kg corrosive solid in a laboratory of L category Notify Safety Officer and OHSE before purchase and/or use of acid/alcohol etchants, hydrofluoric acid, perchloric acid or picric acid 		
	Corrosive - Liquids <ul style="list-style-type: none"> Mineral acids & bases eg hydrochloric acid, sulphuric acid, nitric acid Organic acids eg acetic acid, formic acid 	L ≤ 10L	<ul style="list-style-type: none"> Store in a labelled cupboard Segregate incompatible Class 8 DGs from each other, eg mineral acids & organic acids; acids & bases 	<ul style="list-style-type: none"> Limits do not apply to ≤ 20L sodium hypochlorite
		M > 10L & ≤ 100L	<ul style="list-style-type: none"> Must be stored in corrosives storage cabinet(s) 	
		H > 100L	<ul style="list-style-type: none"> Special approval required from Safety Officer 	
	Corrosive - Solids Solid & liquid corrosives may be stored in the same cupboard or cabinet	L ≤ 50kg	<ul style="list-style-type: none"> All packages to be ≤ 5kg Store in a labelled cupboard Segregate from other classes in the cupboard 	
		M > 50kg & ≤ 100kg	<ul style="list-style-type: none"> Must be stored in corrosives storage cabinet(s) 	
		H > 100kg	<ul style="list-style-type: none"> Special approval required from Safety Officer 	

¹ **'In use' includes:**

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