Information Sheet

Storage, Labelling and Stock Management of Chemicals

1. Introduction

This document provides guidance for the safe labelling and storage of chemicals. Access to all laboratories, workshops and storage areas containing hazardous chemicals must be secured to prevent access by unauthorised personnel.

2. Pre-purchase Form

A pre-purchase form must be completed prior to purchasing a chemical (Staff H&S Intranet pages / PG H&S Intranet pages). This is to ensure that, prior to the chemical arriving in the lab, the hazards are known, and suitable facilities are available e.g. suitable storage, personal protective equipment, and emergency equipment/ procedures.

3. Chemical inventory

There must be a chemical inventory available for every lab/ workshop where chemicals are stored.

The university inventory template can be found on the Staff H&S Intranet pages or PG H&S Intranet pages.

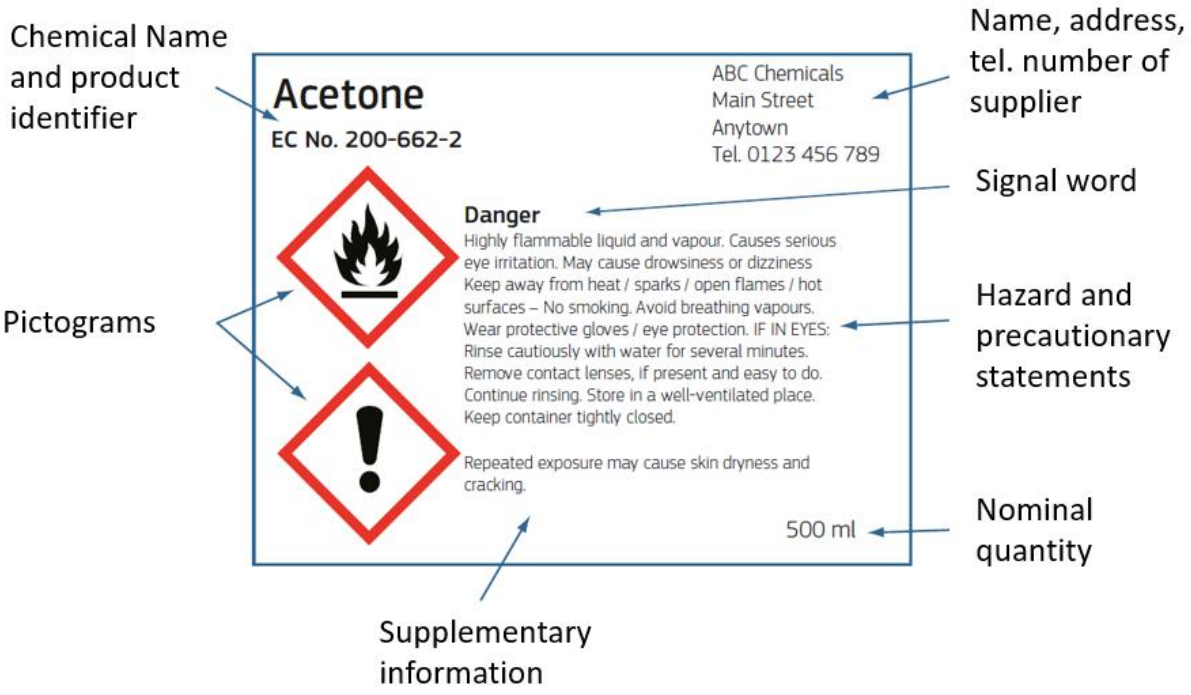
Chemicals must not be added to the inventory until they are received. Items must be removed from the chemical inventory once they have been disposed of or used up. This is to ensure the inventory remains up-to-date.

For every chemical stored there must be a hyperlink within the inventory to the product page/ Safety Data Sheet. The SDS provides users with essential safety information, including recommended storage requirements (section 7) and chemical incompatibility (section 10).

The faculty/ PSU must formally audit inventories, at least annually, to ensure they reflect current chemical stocks. The inventory must always be available to lab users, the Health, Safety and Resilience Team and emergency services on request.

4. Labelling

All chemicals must be clearly labelled. Where practical, hazardous substances should be kept in their original container. The original container is compatible with the substance in it. Below is an example of a chemical label used when chemicals are supplied (GB CLP Regulation):



In addition to the information provided on a chemical label, the following information must be added:

- Reference number (if used).
- Date of opening.
- Owner (initials).
- Expiry date (if required for safety).

All other chemicals (e.g. decanted or made) should be labelled as follows:

- Chemical name.
- Concentration (if applicable).
- Hazard symbols.
- Date made.
- Owner (initials).
- Expiry date (if required for safety)

There may be some situations where it is impractical to label a container (e.g. very small vials). In this case it should be places in a secondary container that is labelled (e.g. in a rack or tray).

5. Storage

Buying an oversized storage cabinet can waste valuable space and does not allow for adequate segregation of incompatible substances. This should be considered when purchasing new cabinets. Larger cabinets can be purchased with segregated compartments.

These are designed to provide safe, separate storage for a range of chemicals (e.g. cabinets for the separate storage of acids, alkalis, and flammables).

- **Storage cabinets:** Must be clearly labelled to indicate their contents, see Appendix 1. Report any damaged or defective cabinets to technical staff.
- **Central shelving** on benches should have raised edges/ lips to prevent items being pushed off the other side.
- **Hazardous chemicals:** Liquids should be stored below shoulder height. Do not store chemical bottles on the floor, or stack chemicals on top of each other.
- If chemicals are stored on high shelves, these shelves should only be used for infrequently used chemicals and suitable access equipment must be provided.
- **Fume cupboards**: These must be kept clear of chemicals and equipment that are not required for ongoing operational work. Items stored in fume cupboards disrupts the airflow making the fume cupboard less effective, this compromises the safety of the user. The storage of chemicals in fume cupboards (including chemical waste) can also increase the risk of fire, chemical spill, and reactions between incompatible materials. For more information see SOP-10101 Safe use of ducted fume cupboard (staff) or SOP-10101 Safe use of ducted fume cupboard (student).
- **Waste** should be stored in an appropriate chemical cabinet prior to disposal.
- **Storage Outdoors**: Chemicals stored outdoors must be in locked containers to prevent access by unauthorised personnel. Large quantities of flammables and other materials should be stored where there is no risk of spillage into the environment. They should be bunded or stored in a cabinet with sufficient drip tray volume to contain a leak. A suitable spill kit must be available in the vicinity.

5.1 Types of Storage Cabinet

Cabinet Type	Requirements
Shelving	• Locate on shelves that are out of direct sunlight. • Central shelving on benches should have raised edges/lips to prevent items being pushed off the other side. • Liquid bottles containing hazardous chemicals should be stored below shoulder height. • If chemicals are stored on high shelves, these shelves should be used for infrequently used chemicals and suitable access equipment should be provided.
Corrosives cabinets	• These cabinets are made of materials that are resistant to corrosion. • These cabinets should contain a spill tray to catch any leakage or spillage. The spill tray should have a volume that is 110% of the largest container. • These cabinets must be lockable. • These cabinets may be ventilated.
Fire resisting cabinets	• These cabinets must be of metal construction and have a minimum fire resistance of 30 minutes. (Some are built to 60 minutes and 90 minutes standard).

	• These cabinets should contain a spill tray to catch any leakage or spillage. The spill tray should have a volume that is 110% of the largest container. • These cabinets must be lockable. • These cabinets may be ventilated. • Newly purchased cabinets should conform to BS EN 14470-1:2004 - Safety storage cabinets for flammable liquids. • All fire resisting cabinets with damaged doors (e.g. not closing or locking effectively), must be replaced. • Fire resisting cabinets should be located away from doors, fire evacuation routes and sources of heat / ignition.
Metal cabinets	• These cabinets should contain a spill tray to catch any leakage or spillage. The spill tray should have a volume that is 110% of the largest container. • These cabinets should be lockable.
Ventilated cabinets	• Ventilated cabinets may be free-standing with their own extract and filtration system or may be situated beneath a fume cupboard and attached to the fume cupboard duct*. • They should contain a tray to catch any leakage or spill. The spill tray should have a volume that is 110% of the largest container. • They must be inspected and maintained in line with manufacturer's instructions (including replacement of filters if required).
Fridges and freezers	• If there is a need to store flammable materials in a fridge or freezer it must be spark-free to prevent ignition of the contents. They will be labelled spark free by the manufacturer. • Fridges and freezer that are not spark-free must be labelled, "No flammable materials to be stored inside." • Refrigerators used for the controlled temperature storage of chemicals must be dedicated and clearly labelled for that purpose and never used to store food or beverages that are for human consumption. Lab users should keep incompatible chemicals apart, where possible. In fridges and freezers separating chemicals on different shelves and using drip trays may be required.
* Cabinets exhausted to a fume cupboard should form part of the 14-month statutory inspection and be maintained in line with manufacturers recommendations	

Incompatible chemicals must be kept apart; this reduces the risk of hazardous chemical reactions and/ or fire.

The **generic chemical storage chart** below is a useful guide for the safe storage of chemicals.

Ensure an up to date safety data sheet is available for every chemical stored. The SDS contains specific information about recommended storage requirements (section 7) and chemical incompatibility (section 10).

Further guidance on the correct segregation and labelling of storage cabinets is available in **Appendix 1** – Chemical storage; segregation and labelling.

Generic chemical storage chart (compatibility)

	Transport Class (SDS, 14.3 ADR/RID)		Flammable solids			Oxidising		Toxic	Corrosive		
		3. Flammable liquid	**4.1** Readily combustible	4.2 Spontaneously combustible	4.3 Dangerous when wet	5.1 Oxidising substances	5.2 Organic peroxides	6 Toxic substances	8. Corrosive - Inorganic acids	8. Corrosive Organic acids	8. Corrosive Bases/alkali
	 3. Flammable liquid		■	■	■	■	■	■	■	■	■
Flammable Solids	 4.1 Readily combustible	■		■	■	■	■	■			
Flammable Solids	 4.2 Spontaneously combustible	■	■		■	■	■	■	■	■	■
Flammable Solids	 4.3 Dangerous when wet	■	■	■		■	■				
Oxidising	 5.1 Oxidising substances	■	■	■	■		■	■	■	■	■
Oxidising	 5.2 Organic peroxides	■	■	■	■	■		■	■	■	■
Toxic	 6. Toxic substances	■	■	■		■	■				
Corrosive	 8. Corrosive - Inorganic acids	■		■		■	■			■	■
Corrosive	 8. Corrosive - Organic acids	■		■		■	■		■		■
Corrosive	 8. Corrosive - Bases/alkali	■		■		■	■		■	■	

■ Keep apart. □ Separation may not be necessary. Refer to SDS, Section 7 and Section 10 for chemical specific advice.

6. Housekeeping

- Do not overfill chemical containers; allow enough free head space (e.g. Winchesters only filled to the shoulder of bottle) to account for any expansion of the contents, preventing over pressurising of the container. Overfilling waste solvent bottles has resulted in Winchesters breaking in the waste store (particularly during hot weather).
- Never carry a bottle of chemicals by its top; carry Winchesters in carriers or baskets capable of providing proper support.
- Empty flammable containers should be stored in the same way as full containers until removed to the waste store.
- When handling chemicals a chemical risk assessment must be completed. Staff and students must use the Chemical Risk Assessment – Safe operating Procedure, this can be found on Staff H&S Intranet pages or PG H&S Intranet pages.
- Chemical risk assessment training is available to book on ABW (staff) or by emailing ha (PG students).

7. Stock Control

- Good stock control should be maintained; this means a regular review of what is being stored.
- The quantity of hazardous/ dangerous substances stored must be kept to a minimum.
- Staff/ students should only purchase the minimum quantity of chemicals required for their work; the disposal of unused chemical can cost significantly more than the perceived savings made when buying chemicals in larger quantities, see Top tips for laboratory purchasing. Minimising the bottle size when purchasing will also reduce the risk of larger spills.
- Some chemicals have a recommended expiry date; this is provided for safety reasons. Guidance may be found in Section 7 of the SDS. Any chemicals with an expiry date must be disposed of before the date has expired; this reduces the risks to lab users and waste contractors.
- A significant number of laboratory solvents can undergo autoxidation under normal storage conditions to form unstable and potentially dangerous peroxide by-products. For further information about their safe use and storage of refer to Peroxide Forming Solvents.
- Chemical containers may degrade over time; this can increase the risk of chemical spill/ injury. For chemicals where there is no recommended expiry date, the following should be applied:
    - Hazardous / dangerous substances: 5 years.
- Chemicals not classified as hazardous/dangerous: 10 years. If a chemical is to remain in storage beyond these recommendations, justification must be supplied regarding its continued safe use and storage. Ensure the container has not degraded (e.g. look for look for leaks, cracks, brittleness, discolouration, or swelling/ warping). An up-to-date risk assessment and Safe Operating Procedure (SOP) must be available. In chemical containers that may have degraded (e.g. Individuals leaving the Univeristy are to follow the departure procedure, see 8-1-14 Departure and Decontamination of Laboratory

and Workshop Space and Equipment. This includes the transfer or disposal of chemicals and updating the chemical inventory.

8. Disposal

- Dispose of hazardous chemicals that are no longer required. For more information see:
  - Chemical Waste store user procedure
  - Chemical waste disposal form
  - Chemical waste disposal label
- All lab users must be aware of the discharge to drain procedure. This document provides clear guidance on what can and cannot be disposed of to drain in order to maintain legal compliance and protect the environment.
- When transporting waste to the chemical waste stores on each campus, ensure an appropriate trolley and spill kit is available to ensure safe transportation i.e. use a bunded trolley with edge guarding and wheels that are appropriate for the terrain.
- **Do not** transfer dangerous goods between campuses.
- Remove a chemical from your chemical inventory once you have used it or disposed of it.

9. Regulated and High Hazard Chemicals

There are chemicals that require more stringent controls (including additional storage requirements) due to potentially significant health or safety effects and/or regulatory requirements. These include:

- Class 1 explosives and Class 4 desensitised explosives* Explosives Regulations 2014
- Chemicals listed in Schedules 1 and 2 of the Chemical Weapons Convention (CWC)
- Controlled drugs Misuse of Drugs Act 1971, Misuse of Drugs Regulations 2001
- Drug precursors, Schedule 1. https://www.gov.uk/government/publications/precursor-chemicals-wallchart-for-domestic-licensing
- Schedule 1 Poisons https://www.legislation.gov.uk/uksi/1982/218/pdfs/uksi_19820218_en.pdf

Contact healthandsafety@swansea.ac.uk, prior to purchase.

Appendix 1 – Chemical Storage, Segregation and Labelling

Class	Dangerous Goods Symbol and Classification (SDS Section 14)	GHS Symbol and Hazard Codes (SDS Section 3)	Chemical Storage – Cabinet Type	Warning Sign (to be displayed on the cabinet, including suggested wording)	Description
	Not applicable	 Chemicals with the health hazard symbol or no GHS symbol.	**General storage / shelving**		**General storage** These chemicals can be stored on open shelves (out of direct sunlight) or in a labelled cabinet. Chemicals with the environmental hazard symbol may also be in general storage within a lab/workshop.
Class 3 – Flammable liquid	 **Class 3 Flammable Liquids**	 H224 Extremely flammable liquid and vapour. H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour.	**Fire resisting cabinet**		**Flammable liquids** These must be stored in a dedicated fire resisting cabinet, used for Class 3 flammable liquids only (see SDS Section 14). *Do not store other flammable materials in this cabinet, (e.g. any Class 4 Flammable solids, see below).* Flammable liquids must not be stored in refrigerators unless it is **spark-free** and labelled. A maximum of 50 litres of extremely, highly flammable and those flammable liquids with a flashpoint

Class	**Dangerous Goods Symbol and Classification** (SDS Section 14)	**GHS Symbol and Hazard Codes** (SDS Section 3)	**Chemical Storage – Cabinet Type**	**Warning Sign** (to be displayed on the cabinet, including suggested wording)	**Description**
					below the maximum ambient temperature of work area may be kept in a laboratory/ workshop. No more than 250 litres for other flammable liquids with a higher flashpoint of up to 60°C may be stored in a laboratory/ workshop. Flammable liquids should be returned to the fire resisting cabinet immediately after use. 500ml working volume may be kept on open bench, then returned to the storage area overnight. Empty flammable containers should be stored in the same way as full containers until removed to the waste store. Flammable cabinets must be kept locked. Liquids that are flammable and toxic, must be stored in a fire resisting cabinet, where this is with other flammable liquids they should be in a secondary container or drip tray; refer to the SDS.

Class	Dangerous Goods Symbol and Classification (SDS Section 14)	GHS Symbol and Hazard Codes (SDS Section 3)	Chemical Storage – Cabinet Type	Warning Sign (to be displayed on the cabinet, including suggested wording)	Description
					Flammable liquids with an **energetic secondary hazard** (e.g. flammable and corrosive) must be stored in a separate fire resisting cabinet.
			Fridge / freezer (Not spark free)		Flammable materials must not be stored in fridges and freezers unless they are spark free. Fridge and freezers that are not spark free, and are used to store chemicals, must be labelled "No flammable materials to be stored inside." A lockable fridge / freezer is recommended.
Class 4 – Flammable solids* **4.1** Flammable solids	 **Class 4.1 Flammable solids**	 H228 Flammable solid. H206* Fire, blast projection hazard; increased risk of explosion if desensitizing agent is reduced. H207* Fire or projection hazard;	**Fire-resisting cabinet**		These chemicals are readily combustible. In small quantities, they should be stored in a dedicated fire resisting cabinet, used for Class 4.1 chemicals only (see SDS Section 14). **Do not store them with flammable liquids.** **Flammable solids** These are readily combustible solids that can be ignited by brief contact with a source of ignition, or are sensitive to friction, and that will

Class	Dangerous Goods Symbol and Classification (SDS Section 14)	GHS Symbol and Hazard Codes (SDS Section 3)	Chemical Storage – Cabinet Type	Warning Sign (to be displayed on the cabinet, including suggested wording)	Description
		increased risk of explosionif desensitising agent is reduced. H208* Fire hazard; increased risk of explosion if desensitizing agent is reduced.			continue to burn after removal of the source of ignition. **Solid desensitised explosives*** Desensitised explosives are liquids or solids that were originally classified as explosives but have had their explosive properties suppressed by adding a desensitising agent, making them safer to handle and transport. Common examples include 2,4-Dinitrophenylhydrazine, 2,4-Dinitrophenol, 1-Hydroxybenzotriazole hydrate and Picric acid (Trinitrophenol, wetted). If the desensitising agent dries out, the chemical can become a Class 1 explosive. The manufacturer should provide information about the shelf-life and instructions on verifying desensitisation. Contact the health and Safety Team prior to purchase. These substances should be stored in a locked cabinet and regularly inspected for signs of drying (e.g. around bottle stoppers and caps and
	 **Class 4.1 Self-reactive substances and mixtures**	 H242 Heating may cause a fire.			

Class	Dangerous Goods Symbol and Classification (SDS Section 14)	GHS Symbol and Hazard Codes (SDS Section 3)	Chemical Storage – Cabinet Type	Warning Sign (to be displayed on the cabinet, including suggested wording)	Description
					within the bottle) and the checks documented. Any leaks of spills should be dealt with immediately. For further information see *Information Sheet – Safe use of desensitised explosives.* **Self-reactive substances.** These are thermally unstable liquid or solid substances or mixtures liable to undergo a strong exothermic decomposition even without the participation of oxygen (air). Examples include various azo compounds.
Class 4 – Flammable solids 4.2 Spontaneously	 **Class 4.2 Pyrophoric liquids and solids**	 H250 Catches fire spontaneously if exposed to air.	**Fire resisting cabinet**		These chemicals are spontaneously combustible. In small quantities, these should be stored in a dedicated fire resisting cabinet, used for Class 4.2 chemical only (see SDS Section 14). **Do not store them with flammable liquids.**

Class	**Dangerous Goods Symbol and Classification** (SDS Section 14)	**GHS Symbol and Hazard Codes** (SDS Section 3)	**Chemical Storage – Cabinet Type**	**Warning Sign** (to be displayed on the cabinet, including suggested wording)	**Description**
	 **Class 4.2 Self-heating substances and mixtures**	 H251 Self-heating: may catch fire. H252 Self-heating in large quantities; may catch fire.			**Pyrophoric liquids and solids** A pyrophoric liquid or solid is a substance which, even in small quantities, is liable to ignite within 5 minutes of coming into contact with air. Pyrophoric substances have packaging that is designed to exclude air. If air enters a damaged package the substance may start to burn at room temperature or when gently heated. Examples include yellow phosphorus and some metal alkyls. **Self-heating substances and mixtures** Oxidative self-heating substances may react with the air and so raise the temperature to the point at which spontaneous combustion takes place. This is normally a slow process which can be controlled by restricting the pack size, limiting storage duration, monitoring temperatures, or excluding air.

Class	Dangerous Goods Symbol and Classification (SDS Section 14)	GHS Symbol and Hazard Codes (SDS Section 3)	Chemical Storage – Cabinet Type	Warning Sign (to be displayed on the cabinet, including suggested wording)	Description
Class 4 – Flammable solids **4.3** Dangerous when wet	 **Class 4.3 Dangerous when wet**	 H260 In contact with water releases flammable gases which may ignite spontaneously. H261 In contact with water releases flammable gases.	**Fire resisting cabinet**	  Dangerous when wet Danger: Explosive atmosphere	**Dangerous when wet.** In small quantities these should be stored in a dedicated fire resisting cabinet, used for Class 4.3 chemicals (see SDS Section 14). **Do not store them with flammable liquids.** Solid substances that emit a flammable gas when wet or react violently with water. Examples include calcium carbide, metal hydrides, powders of reactive metals such as magnesium or aluminium, and alkali metals such as sodium and potassium. Fire involving or in the vicinity of such materials should not be tackled with water.
Class 5 – Oxidising substances	 **Class 5.1 Oxidising Substance**	 **Oxidiser**	**Corrosive cabinet**	 Oxidiser	**Oxidiser** These should be stored in a dedicated corrosive cabinet, used for Class 5.1 chemicals (see SDS Section 14). Do not store them in a wooden cupboard. Some oxidisers are incompatible from each other and

Class	Dangerous Goods Symbol and Classification (SDS Section 14)	GHS Symbol and Hazard Codes (SDS Section 3)	Chemical Storage – Cabinet Type	Warning Sign (to be displayed on the cabinet, including suggested wording)	Description
		H271 May cause fire or explosion: strong oxidiser. H272 May intensify fire; oxidiser.			need to be stored apart, check the SDS (Section 10). These may be solid or liquid. Oxidisers may be very reactive and should be stored separately from other chemicals. Never store oxidisers with flammable liquids (*their symbols look similar*), reducing agents or near combustible materials (e.g. wood, paper/ cardboard).
Class 5 – Oxidising substances **5.2** – Organic peroxides	 **Class 5.2** **Organic peroxides**	 H242 Heating may cause a fire.	**Fire resisting cabinet**		**Organic peroxides** These should be stored in a dedicated fire resisting cabinet, used for Class 5.2 chemicals (see SDS Section 14). Minimise the quantity stored and contact your H&S Lead. Some organic peroxides require temperature control. The manufacturer should provide information about the shelf-life and instructions on verifying desensitization, where applicable. Organic peroxides* are a particularly reactive type of oxidising substance.

Class	Dangerous Goods Symbol and Classification (SDS Section 14)	GHS Symbol and Hazard Codes (SDS Section 3)	Chemical Storage – Cabinet Type	Warning Sign (to be displayed on the cabinet, including suggested wording)	Description
					They may be solids, liquids, or pastes, and have one or more of the following properties: • liable to explosive decomposition. • burn rapidly and intensely even in the absence of oxygen. • sensitive to impact or friction. • react dangerously with other substances. • decompose at comparatively low temperatures and/or cause spontaneous ignition if spilt onto combustible material. Organic peroxides must be stored separately from flammable, corrosive, and toxic materials.
Class 6 – Toxic substances		 **H340 May cause genetic defects.**	**Metal cabinet**	 CMR and asthmagen	**Mutagens, carcinogens, toxic for reproduction and asthmagens.** These chemicals must be stored in a **locked** cabinet with access restricted to authorised, trained users. Where

Class	Dangerous Goods Symbol and Classification (SDS Section 14)	GHS Symbol and Hazard Codes (SDS Section 3)	Chemical Storage – Cabinet Type	Warning Sign (to be displayed on the cabinet, including suggested wording)	Description
	Class 6.1 **Toxic substances**	**H341 Suspected of causing genetic defects.** **H350 May cause cancer.** H351 Suspected of causing cancer. H360 May damage fertility or the unborn child. H361 Suspected of damaging fertility or the unborn child. **H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.**			fumes or odours can be evolved, they must be stored in cabinets with adequate **extraction ventilation**. The quantities stored must be kept to a minimum. Where, due to space constraints, CMRs and asthmagens are stored in a toxic cabinet a CMR and asthmagen sign must also be displayed.
Class 6 – Toxic substances	 **Class 6.1** **Toxic substances**	 **H300 Fatal if swallowed.**	**Metal cabinet** **Ventilated cabinet**	 	**Toxic substances/ Serious health hazard** These are substances which if inhaled, ingested or absorbed through the skin may cause serious adverse health effects.

Class	Dangerous Goods Symbol and Classification (SDS Section 14)	GHS Symbol and Hazard Codes (SDS Section 3)	Chemical Storage – Cabinet Type	Warning Sign (to be displayed on the cabinet, including suggested wording)	Description
		H310 Fatal in contact with skin. **H330 Fatal if inhaled.** H301 Toxic if swallowed. H311 Toxic in contact with skin. H331 Toxic if inhaled.  H370 Causes damage to organs. H371 May cause damage to organs. H372 Causes damage to organs through prolonged or repeated exposure. H373 May cause damage to organs		 Toxic, halogenated	In the event of fire, there may be a failure of many containers due to the effects of flame and heat, as well as posing an immediate threat to anybody in the vicinity, e.g. firefighters. The toxic substance can also be spread large distances in the plume of smoke, or it may be washed into watercourses by firefighting operations. **Non-flammable, halogenated solvents** Do not store with flammable liquids or other organic liquids as violent reactions may occur with some solvents. Halogenated and non-halogenate waste is also kept apart.

Class	Dangerous Goods Symbol and Classification (SDS Section 14)	GHS Symbol and Hazard Codes (SDS Section 3)	Chemical Storage – Cabinet Type	Warning Sign (to be displayed on the cabinet, including suggested wording)	Description
		through prolonged or repeated exposure. H304 May be fatal if swallowed and enters airways. H305 May be harmful if swallowed and enters airways.			
Class 8 – Corrosive substances	 Class 8 Corrosive material	 **Corrosive** H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.	**Corrosive cabinet, lockable with a bund**	  Corrosive (organic acid)	**Corrosive substances** Hazardous substances may be classified as corrosive because they burn the skin on contact or burn the mucous membranes of the respiratory tract by inhalation. Corrosive substances can cause serious eye damage. Corrosive substances will react with incompatible materials e.g., incompatible chemicals, unsuitable packaging, metals (including shelving that is not corrosion resistant). Corrosive cabinets must be bunded. Corrosive liquids must not be stored above shoulder height.

Class	**Dangerous Goods Symbol and Classification** (SDS Section 14)	**GHS Symbol and Hazard Codes** (SDS Section 3)	**Chemical Storage – Cabinet Type**	**Warning Sign** (to be displayed on the cabinet, including suggested wording)	**Description**
					**Corrosive (inorganic acids) and Corrosive (organic acids), have a pH less than 7.** Separate storage cabinets are required to separate inorganic and organic acids; there is a risk of violent reactions if some inorganic and organic acids are stored together. *Nitric acid* is corrosive, toxic, and an oxidiser, it must be stored in a secondary container if it is stored with other inorganic acids. Hydrofluoric acid (HF) is corrosive and toxic, it must be stored in a dedicated, locked corrosive cabinet, with access restricted to users who are trained in the safe handling of HF. HF must never be stored in metal or glass containers. Hexafluorine/ calcium gluconate gel must be readily available in all areas where HF is stored or used.

Class	Dangerous Goods Symbol and Classification (SDS Section 14)	GHS Symbol and Hazard Codes (SDS Section 3)	Chemical Storage – Cabinet Type	Warning Sign (to be displayed on the cabinet, including suggested wording)	Description
				 Corrosive (base / alkali)	**Corrosive (base/alkali) have a pH greater than 7.** Separate storage cabinets are required to separate alkalis/bases from acids, since any accidental mixing of the concentrated materials may generate large quantities of heat and fumes.

***Class 4 materials.** This class contain materials with a variety of hazards and physical properties. Some are low melting point solids, or solids which are kept under a protective layer of inert liquid or gas. In Class 4 – there are 3 main class divisions, see below (4.1, 4.2 and 4.3), each division is stored apart. You should obtain advice on each substance from the supplier. There may be special requirements for safe storage e.g. temperature limitations, sensitivity to impact, friction, impurities, or water. Some require wetting, to ensure that they do not dry out. Some have a short expiry date (from receipt and/or opening), these chemicals must be safely disposed of before they expire; this expiry date must be written onto the bottle. Care must be taken to ensure that they are not accidentally stored with flammable liquids.