

Storage of placard quantities of hazardous chemicals including fuels and LPG gas cylinders

Department workplaces and schools can keep up to the prescribed amounts of hazardous chemicals on the premises before they are required to placard (sign) their site:

- refer to the [Work Health and Safety Regulation 2011 \(Qld\)](#) Schedule 11 and 13 for placard limits

Placards are typically required for certain quantities of chemicals classed as dangerous goods. Sections 2 and/or 14 of the product's safety data sheet (SDS) identify if a chemical is a dangerous good. Dangerous goods have physical hazards e.g. flammable, corrosive that must be managed. Examples of placard amounts for some common dangerous goods are listed in table 1 below.

- For some dangerous goods, you will need to identify the chemical's hazard category from the **vendor** SDS s2 before you can determine the placard amount. This is because the type and proportion of ingredients (the formulation) of the product may be different between brands. See Table 2 for an example. To simplify the process, you can use Chemwatch's placard report to tell you if you need to placard, and what placard signage you need.
- In addition to placarding amounts, if storage volumes exceed prescribed [manifest amounts](#), a site will be recognised as a 'hazardous storage facility'. The workplace is required to lodge a notification if hazardous chemicals in excess of manifest quantities with the [Regulator](#).

A placarded storage location requires specific, detailed legislative compliance that is onerous for a workplace. Keeping levels below the specified placard amounts makes management easier and safer. More information relating to placarding and manifest thresholds, as well as general chemical storage advice can be found in the [Chemical management guideline](#).

Table 1: Examples of placard amounts for some common chemicals used in schools

Refer to the Chemical management guideline appendix 1 for specific information.





Hazardous chemical	Dangerous good?	Prescribed placarding quantity from regulation – you must be under this amount or workplace placarding is required	Building placard required
Diesel fuel	Yes	10 000 L	 <small>Minimum 100 mm lettering</small>
Liquid pool chlorine or granulated chlorine	Yes	50 kg or L (skin corrosion category 1A) 250 kg or L (skin corrosion category 1B) 1000 kg or L (skin corrosion category 1C) 1000 kg or L (corrosive to metals category 1)	 minimum size 100 mm x 100 mm
LPG cylinders	Yes	200 L	 minimum size 100 mm x 100 mm
Methylated spirits	Yes	250 L	 minimum size 100 mm x 100 mm
Mineral Turpentine	Yes	1 000 L	
Solvent based paints and lacquers	Yes	Check GHS classification* either 250 L (category 2) or 1 000 L (category 3)	
Petrol	Yes	50 L (flammable liquid category 1) or 250 L (flammable liquid category 2)	
Round Up	No	Not applicable	No placard needed



Table 2: Example using GHS hazard categories to identify placard limits for unleaded petrol products.

The vendor SDS (s14) indicates unleaded petrol is a class 3 (flammable liquid) dangerous good.

The vendor SDS s2 shows that the hazard category and therefore the placard amounts vary between vendors.

Vendor	Fuel product	DG Class (SDS s14)	Flammable liquid category from vendor SDS s2.	You would need to placard if you exceed:
Vendor A	Wow 91 unleaded petrol	3	Category 1	50 L
Vendor B	Wizz 91 unleaded petrol	3	Category 2	250 L
Vendor C	Kapow 91 unleaded petrol	3	Category 1	50 L

The storage of chemicals, whether dangerous, hazardous, non hazardous or wastes, are based on the properties and compatibility of the chemicals. **If a chemical is incompatible with another, the chemicals *must not be stored together*** to mitigate the risk of fire, reaction or explosion.

Incompatible placard amounts must be separated using a minimum distance of 3 metres for PG III chemicals and 5 m for PG II chemicals; or segregated from incompatible chemicals e.g. by fire isolation in a chemical storage cabinet, or by using distance (space) or inert materials.

Information on chemical incompatibilities can be found in:

- the safety data sheet (SDS) for the chemical – in Section 7 and/or 10 of the SDS
- the [Chemical Compatibility and Segregation Advisory Guide](#) (see appendix 9)

Remember:

- pool chemicals require special attention, they can be dangerous and under certain conditions may explode or cause fire. Specific pool chemical storage advice is provided by [WHSQ](#).
- fuels are flammable or combustible liquids and require approved metal or plastic storage containers and must be stored away from ignition and other heat sources, fertilisers, pool chemicals and compressed gases including gas cylinders and aerosol cans.

Storage of LPG gas cylinders

- Hazard - compressed flammable gas.

Store the cylinder safely:

- keep upright (vertical) at all times and ensure it is not at risk of tipping over. Secure the cylinder e.g. with a chain in a secure location to protect against falling, damage, being hit by ride on mowers, vandalism, etc
- in an outdoor area that is adequately ventilated and not susceptible to excessive temperature rise
- keep the cylinder valves closed when not in use. Fit and tighten the plug to the cylinder valve internal thread during storage
- 5m from DG3, DG4 and DG5 chemicals and 3m from DG8 chemicals. Refer to product SDS s7.
- check the cylinder's date stamp is less than ten years old. LPG cylinders must be re-tested every ten years, and should not be used if the cylinder is 'out-of-date'
- do not store the cylinder in close proximity to an ignition source, or in locations that could jeopardise escape from the building in the event of a fire e.g. near entries and exits or close to windows.
- inspect the cylinder on a regular basis to ensure it is in good condition, free from rust and housed properly.

Resources and further information

- [Chemical management guideline](#) see section 1.3.5 and appendix 1.
- [SOP compressed gas cylinder](#); [BBQ SOP](#)
- [Regional Health and Safety Consultant](#)