

# Liquefied Petroleum Gas (LPG) Cylinders

If you have any LPG cylinders on your site you must comply to the Australian/New Zealand Standard – AS/NZA 1596:2002. Therefore, if your company has LPG cylinders stored on your site this will be included as part of the AFRA audit.

Below is some relevant information you should know about LPG cylinders:

## What are the dangers of LPG

- If LPG leaks, it will evaporate and form a large cloud of gas, which will settle in low spots such as drains or basements. This can cause a fire or suffocation hazard.
- LPG is highly flammable and could cause a fire if ignited.
- LPG can cause cold burns if in contact with the skin, or act as an asphyxiant (meaning you won't be able to breathe) if present in high concentrations.

## Storage

- Cylinders should be stored outside in a well-ventilated area, be carried and stored upright at all times.
- LPG gas bottle storage must be prevented from falling, movement or physical damage by storing them in approved

cages/racks, securing the LPG gas cylinder storage with LPG gas cylinder safety chains or using other approved retention methods for LPG gas cylinder safety.

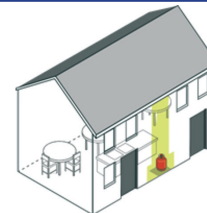
- Do not store or use petrol, flammable liquids or aerosols near LPG cylinders.
- Ensure valves are turned off firmly when not in use.
- Pressure relief valves should face away from dwellings and combustible materials where possible.
- Forklift cylinders not being used are required to be stored outside in well ventilated LPG storage. This is typically in a storage cage at least 6 metres (20 feet) from other structures.
- LPG should never be stored in excess of 50°C (122°F) or near a heat source.
- LPG gas bottle storage (LPG cylinder storage) should be limited to no more than what is required.

## Usage

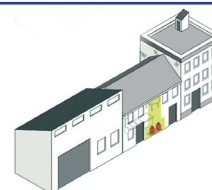
- Never use LPG indoors or in a confined space.
- Do not connect or disconnect cylinders in the vicinity of a naked flame.

## How much LPG can I store?

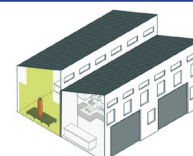
Commercial premises (eg hotels, restaurants, shops or offices) that occupy a standalone building must not have more than 10kg of LPG stored inside for every 10m<sup>2</sup> of indoor floor area, up to a maximum of 100kg. Each cylinder must be no more than 10kg in volume.



Where the building is attached to another occupied building a maximum of 20kg of LPG can be located indoors irrespective of the floor area (eg two 9kg cylinders). If you have more than 100kg of LPG on site, this must be stored outside.



A factory or warehouse must not have more than 45kg of LPG per 50m<sup>2</sup> of indoor floor area, up to a maximum of 180kg and with a maximum cylinder size of 45kg. Cylinders attached to a forklift truck are not counted.



- Do not use undue force to open or close the main cylinder valve. If in doubt, consult the supplier.
- Always keep cool and away from flames, sparks and heat.
- When operating your gas bottle, always read the manufacturer's operating instructions.

### **Maintenance**

- Your gas cylinder is required to be re-tested and stamped every 10 years.
- Never use a naked flame to detect a leak. To check for gas leakage, spray soapy water on any suspect connection or hose and watch for bubbles. If in doubt, turn off the gas and have a licensed gas fitter attend to the hose or connection.
- Do not attempt to refill dented or corroded cylinders. They must be returned to a test station for re-certification.
- Never tamper with the safety valve or other gas bottle fittings.

### **Safety obligations**

- Have a 2kg dry chemical fire extinguisher on hand if there is more than 50kg of LPG present on site. If there is no fire extinguisher on site, you must have a hydrant system with a 20mm hose with a spray nozzle, which is long enough so that the water can reach all sides of the LPG containers.
- Have signs showing LPG is present if you have more than 50kg stored inside, or more than 250kg outdoors.
- Signs must be located correctly, easy to understand, made from durable materials and show that LPG is flammable.
- Have a first aid kit available and trained first aiders on site in case of an emergency.

- Have more than 300kg of LPG in your workplace, you must have an emergency response plan. Make sure you test your plan at least once a year to check if it's effective.
- Some things your emergency response plan should cover include all the potential emergencies that may arise when using LPG, what to do in an emergency and how to contact emergency services.
- Make sure that all cylinders are correctly labelled to show that they contain LPG.
- Make sure that everyone in the workplace has the information, training, instruction or supervision they need to use LPG safely. This means they need to:
  - be aware of the hazards
  - know what control measures are in place to reduce the risks caused by LPG
  - know how to safely use, handle and store of LPG, and
  - know what to do in an emergency

A copy of the MSDS sheet for LPG cylinders should be kept onsite in case of emergency. A copy can be downloaded from Elgas website or similar gas supplier sites - SDS Version Jan 2019 - ELGAS - LPG Gas for Home & Business

Remember, be safe not sorry. If you detect a strong smell of gas, call Triple Zero (000) and ask for the fire service.

*Source: Worksafe New Zealand and Elgas*