



## Industrial uses of LPG

Anyone using LPG must know how to handle it safely, where to seek advice and what to do in an emergency.

### LPG in the workplace

If you use LPG, you must:

- identify a "person in charge" to manage the LPG stored and used onsite;
- get a safety data sheet from your supplier;
- ensure staff are trained to use it safely;
- ensure there are signs showing LPG is present and that the cylinders are labelled
- have emergency procedures, a fire evacuation plan and emergency equipment such as fire extinguishers.

### Installing cylinders

Twin-pack, multi-cylinder facilities and bulk storage tanks must comply with the hazardous substances legislation, the requirements of the Gas Act (when connected to gas appliances), and the Health and Safety in Employment Act (for pressure equipment).

### Installing gas appliances

Fixed gas appliances, including the pipes and hoses from the cylinder valve, must be installed by a licensed gasfitter who will issue a certificate of compliance.

### Limits for LPG indoors

Commercial premises where the building is detached or shares only one wall with another building, may hold 10 kg of LPG for every 10 square metres of indoor floor area, up to a maximum of 100 kg.

If your building shares more than two walls with another building, you may only hold a maximum of 20 kg of LPG in total irrespective of floor area, i.e. two 9 kg cylinders.

For factories and warehouses the maximum quantity in a building is 45 kg per 50 square metres of indoor floor area, up to a maximum quantity of 180 kg; the maximum cylinder size is 45 kg.

These quantities **do not** include cylinders that are attached to a forklift truck.

### Sites with over 100 kg

A test certifier must inspect any location that has more than 100 kg of LPG and issue a location test certificate (LTC). Your supplier will need to see your LTC before they supply LPG.

If you have more than one location and each has less than 100 kg of LPG, they can be considered separately if more than five metres apart. The area between must also be free of flammable or combustible materials such as waste materials or dry vegetation.

If your installation has between 100 kg and 300 kg of LPG, ongoing checks can be done by your supplier at their discretion. You must confirm that your supplier will do this. Otherwise, you must continue to use a test certifier to do the work.

If you have over 300 kg of LPG, a test certifier must renew your LTC. LTCs will be valid for one year but may be extended to three years. Ask your test certifier about an extension.

### LPG must be secured

All cylinders over 13 kg must be securely held in place with chains and/or brackets. Locations with more than 100 kg of LPG must be secured against unauthorised access.



You can find a test certifier in your area by searching [www.epa.govt.nz](http://www.epa.govt.nz).

### Signage

Signs are required if you store more than 50 kg of LPG inside a building. If the LPG is stored outdoors a sign is required if you have more than 250 kg. If the LPG is in a refrigeration system machine room, you will need a sign whatever the quantity. You may purchase signs from health and safety product stockists. Your supplier should tell you what is needed.

## Training

### Approved handler

An approved handler is required where a site has more than 100 kg of LPG. An approved handler must be available if people can gain access to the LPG.

To become an approved handler a person must know about the safe use and handling of LPG and the equipment being used and the relevant hazardous substances legislation.

The test certifier must be satisfied that the approved handler is qualified before issuing them with a test certificate.

You must be trained if you handle cylinders and the site requires a LTC. An approved handler must be available to give advice at all times if required. If you are handling cylinders regularly, the ideal solution is for one or more of your staff to become an approved handler.

### Approved filler

If you fill cylinders you must hold an approved filler certificate. Approved fillers may be trained and approved using the LPG Association scheme or by a test certifier.



To find out more about storing and using LPG, talk to your supplier or check [www.epa.govt.nz](http://www.epa.govt.nz)

## Refuelling forklift trucks

If you refuel a forklift truck you need to know how to fill a cylinder and what to do in an emergency. You do not need to be an approved handler if the cylinder is:

- fixed to the forklift: this is like refuelling a vehicle, but you do need to know how to fill the cylinder safely
- replaced and you take a single cylinder from a pool of full cylinders, an approved handler must be available if required

Ensure staff are trained to use it safely. If the cylinder is removed from the forklift for filling, it must be filled by an approved filler and if filled from a bulk tank, an approved handler must be available.

## In the event of fire

- Dial 111 for the Fire Service and tell them that LPG cylinder(s) are on the premises
- If it can be done safely, turn off the supply
- Leave the area

## LPG leaks

Even a small gas escape can present a serious fire hazard.

*Check the connections.* Inspect rubber seals and hoses for cracking or deterioration. Replace parts if damaged.

*Use the soapy water test.* Apply soapy water to the connections and turn on the cylinder. If bubbles appear, you have a leak.

*Use your nose.* LPG smells like rotten cabbage.

*Know how LPG behaves.* LPG is heavier than air. Vapour travels along the ground and into exposed drains or openings.

*Avoid contact with LPG liquid.* LPG liquid can cause severe frost burns to skin.

*Handle empty LPG cylinders with care.* They contain vapour and are potentially dangerous.

## If you smell gas

- Do not switch any electrical appliances on or off – this could cause a spark and ignite the gas
- Open doors and windows to increase ventilation
- If you cannot stop the leak, dial 111 and ask for the Fire Service
- Do not reuse any defective cylinder or appliance until it has been tested and declared safe

## Final check

- Observe the limits for storing LPG indoors
- Ensure you have a LTC for amounts greater than 100 kg
- If you have between 100 kg and 300 kg, check if your supplier will carry out the checks on your system, otherwise check the expiry date on your LTC and have a test certifier renew it
- Have your cylinders tested at a cylinder testing station every 10 years
- Get a safety data sheet from your supplier and follow the advice for storage, signage, handling and emergency management
- Ensure you have an approved handler and/or approved filler if necessary
- Ensure you have a gas certificate
- Keep this checklist on hand



Write the phone number of your LPG supplier here