

## Making safety key with LPG

Liquid Petroleum Gas (LPG) is a useful fuel which can be found across all kinds of industries and businesses. It's a great fuel source for cooking, heating and manufacturing processes, but if not managed correctly it can burn uncontrollably or even explode when ignited. So it's worth knowing the dangers, and how to use and store LPG safely. It's also regulated by the Hazardous Substances and New Organisms (HSNO) legislation which places certain obligations on people who store and use LPG.



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## Get to know the label

LPG can be identified by a label in the shape of a red diamond  attached to the cylinder with the words Flammable Gas in the centre. LPG can be dangerous – it's colourless, odourless and forms a flammable mixture when combined with the right amount of air. Even small amounts of LPG in the air can be dangerous. It's also heavier than air so can 'sink' into drains, gullies and lower parts of buildings. It can travel great distances from the original source. If it finds an ignition source it will ignite and possibly cause an explosion.

An odourant is added to LPG to make gas leaks easier to detect. If its escaping you might see frosting around the source of the leak.

## Help prevent ignitions

- Only connect LPG appliances to LPG supply systems as they're not directly compatible with other gas supply systems such as natural gas.
- Use equipment and parts specifically manufactured and approved for use with LPG.
- Use flexible hoses specifically designed for use with LPG and frequently inspect them for damage.
- Service and maintain all LPG appliances and fittings and have all LPG cylinders pressure tested every 10 years.
- Install flashback arrestors to both the LPG and oxygen cylinders if using LPG for welding or cutting.
- NEVER check for a leak using a naked flame – use soapy water instead. If bubbles form, turn the gas off at the regulator and call a registered gas service agent right away.



## Manage your storage

See the Worksafe website [worksafe.govt.nz](https://www.worksafe.govt.nz)

- Learn the correct way to store LPG for your business or service.
- Get specialist advice on safe storage as there are different rules for internal and external storage and for different occupancies. The Worksafe website is a good starting point.
- Make sure all LPG cylinders (those in use, spares or even empties) are kept secured in the upright position. Storing them in any other way reduces the effectiveness of the over-pressure relief valve.
- Regardless of whether it's stored in a cage or attached to a gas manifold outside, a Location compliance certificate may be required if the quantities exceed certain thresholds. Your gas supplier or a test certifier will be able to advise what's required.

## Think smart, stay safe

- Make sure all LPG gas cylinders, including external manifolds, and their supply connection equipment, are correctly installed and regularly serviced.
- Store all gas cylinders vertically, and always away from any ignition sources in a well ventilated no-smoking zone. Include signage to identify where LPG is present.
- Check you have the right type (and number) of fire extinguishers.
- Have safety data sheets available on site and appoint someone to be accountable for managing LPG safety.

## Need more info?

Check out the Worksafe website [worksafe.govt.nz](https://www.worksafe.govt.nz)

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