

Liquified Petroleum Gas, often referred to as LPG, is a type of flammable hydrocarbon gas like propane, butane, or a mixture of these gases. When stored under pressure, LPG becomes a liquid which allows for easy transportation and storage.

### The hazards of LPG:

- Liquified petroleum gas is heavier than air and will flow along floors and tend to settle in low spots, such as basements. This could cause an explosion if the mixture of LPG and air is within its explosive limits and there is an ignition source.
- Workers can be at risk of suffocating if the gas displaces air and reduces the oxygen concentration in the area.
- Hazardous exposure to LPG can happen by inhalation, skin, and eye contact.
- Excess pressure due to overfilling, temperature changes, corrosion, a faulty pressure relief valve, or a malfunctioning regulator can lead to leakage, container rupture, damage to connected equipment, or even explosion.

LPG fuels, like propane, can be safe, efficient, and reliable but must be handled, transported, and stored properly or they can be dangerous.

- Adequate training must be provided to all workers who may handle compressed or liquified gas cylinders or who will be working near LPG tanks.
- Appropriate PPE, especially eye and hand protection, should be worn when connecting and disconnecting LPG to or from hoses.

Sometimes the terms "LPG" and "Propane" are used interchangeably, but to clarify: Propane is an LPG, but not every LPG is propane.



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Always refer to the Safety Data Sheet (SDS) to understand the specific characteristics, risks, and safety precautions associated with the particular type of LPG being handled.

**OSHA Standard 1926.153(h)(10)** *Containers, regulating equipment, manifolds, pipe, tubing, and hose shall be located to minimize exposure to high temperatures or physical damage.*



Liquified petroleum gas is a hazardous flammable material that can have explosive force if ignited because the container is pressurized.

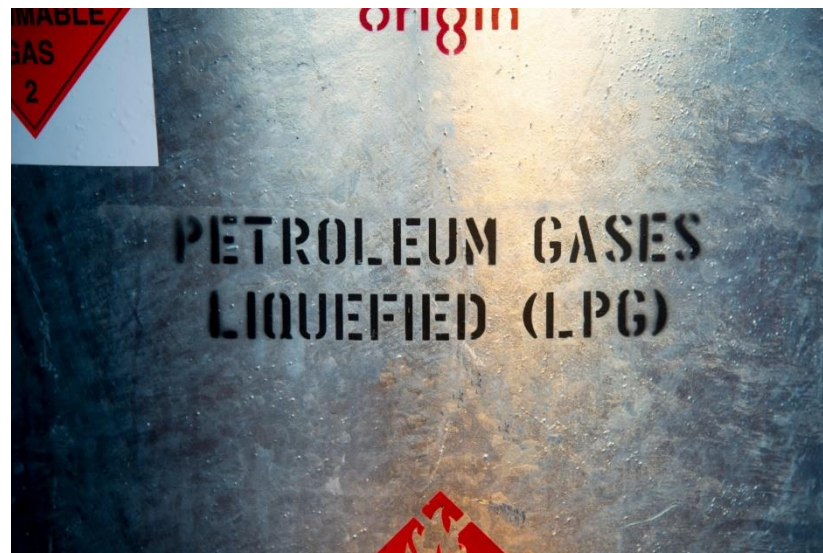
- Do not use, handle, or store LPG near other flammable or combustible materials.
- If there is a leak, the gas can be ignited and cause a fire or burn the worker handling the container.
- LPG containers can also leak over time creating a fire hazard so they should not be stored in enclosed, unventilated work areas.
- Do not store or use LPG in an area of excessive heat or near a heat or ignition source like open flames, pilot lights, or spark-producing power tools
- Ensure fire extinguishers are placed within easy access of LPG storage.
- Do not smoke while handling, transporting, or working near LPG containers or tanks.
- Do not use metal tools when changing a cylinder.
- Never attempt to cut open, modify, repair, or disassemble any parts of an LPG container.



Inspect LPG cylinders regularly and look for signs of defects, deep rusting, and leakage.

- If LPG cylinders are in poor condition they should be replaced, even if they haven't yet met their requalification date.
- Never use a lit match to check for leaks.
- LPG cylinders past their requalification date must be replaced or exchanged.
- Do not use a damaged, expired, or leaking LPG cylinder.

**OSHA Standard 1926.153(a)(1)** *Each system shall have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type.*



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Always follow the manufacturer's instructions for any LPG-powered tools and equipment including proper use, inspection, storage, and the cylinder-changing procedure.

- Never leave LPG-fueled tools or equipment (including forklifts) unattended in any area of possible excessive heat or near ignition sources.
- Carefully follow the instructions in the owner's manual regarding locations of safe operation. Exhaust from LPG-fueled equipment contains poisonous carbon monoxide and should only be used in well-ventilated or outdoor areas only.



Take care when choosing a storage location for liquified petroleum gas. The containers should not be located in any area that has a risk of experiencing excessive heat, tampering by unauthorized persons, or physical damage by passing or falling objects.

- LPG cylinders should not be stored (even temporarily) near exits, stairways, or any other high-traffic areas.
- It's best to store LPG cylinders at least 20 feet away from the building in an area that is protected from rain, like an open-air cage with floor and a roof.
- Protect stored LPG cylinders from falling by using a support system, like a chain. Consider securing each container individually for easy and safe removal.



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LPG cylinders should be placed in a such a way that the relief valve is in direct contact with the vapor space in the container. LPG cylinders, like propane, may generally be stored in a vertical position.

- When propane cylinders used to fuel forklifts are placed horizontally the relief device must be at the top.

When not in use, the valve on the LPG container should be closed to avoid a potential leak.

- Do not use excessive force when opening or closing the valve.





Carry and transport liquified petroleum gas cylinders in a vertical position, with the valves closed.

- LPG cylinders should not be rolled, dropped, dragged along the floor, or allowed to bang against other objects.
- When transporting an LPG cylinder in a vehicle, it's generally okay to lay it down but it's always best to keep it standing up and secured, if possible.
- Never ask a passenger to hold onto an LPG container. Always transport LPG cylinders in the trunk or cargo area of the vehicle.
- It is best if the LPG containers have some amount of ventilation while being transported. The LPG cylinders must not be left inside a closed vehicle during hot weather if there is a chance of excessive heat build-up.



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