

# PROPANE STORAGE

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Propane, a common fuel source at fairgrounds, can be used for heating and cooking or to power vehicles, such as forklifts. Propane, however, can be hazardous if stored improperly.

Propane should never be stored with other flammable liquids. It should also be stored in well-ventilated areas and protected from damage and potential ignition sources. Propane may be stored in cylinders or American Society of Mechanical Engineers (ASME)-designed propane tanks for larger quantities.



PROPANE STORAGE

## PROPANE CYLINDERS

Propane cylinders should be stored following these recommendations:

- Cylinders should be stored outside of buildings:
  - At least 20 feet away from doors and other egress points.
  - Located away from direct sunlight to avoid overheating.
  - Be protected from moisture that can cause rust.
- Cylinders should be stored vertically on a flat surface.
- Some cylinders are made to be stored horizontally. When stored this way:
  - The relief valve should be situated at the 12 o'clock position on the canister to keep it above the liquid level in the tank.
  - The relief valve should never be positioned below the liquid fuel level of the canister, as this prevents air from being released in the event that the contents become over pressurized.
- Storage locations should be protected from physical damage and tampering to the location.
  - Propane storage cages and/or vehicle barriers (often consisting of steel or concrete bollards no less than 3 inches in diameter) are commonly used for this task.
- A warning sign reading, "LP gas storage: No Smoking or Open Flames within 50 Feet" should be conspicuously posted at the storage location.



*Propane Cylinder*

Although not recommended, cylinders can be stored in buildings not frequented by the public, but they must adhere to the following:

- Cylinder storage is not located near exits, stairways or in areas meant for the safe egress of people.
- The maximum quantity of propane allowed in an inside storage location cannot exceed 300 pounds or 735 pounds of water capacity. This translates to approximately nine 30-pound cylinders.
- Partial or empty cylinders are considered full containers for the purpose of determining the maximum quantity of propane allowed.

## ASME ABOVE-GROUND TANKS

ASME above-ground propane tanks must follow these requirements:



*ASME Above-ground LP Tank*

- Depending on the size of the LP-gas tank, certain required distances must be maintained between the tank and property lines or structures:
  - Propane tanks having volumes of 125 to 500 gallons must be located at least 10 feet from buildings or property lines.
  - Smaller tanks must also be located away from sources of ignition.
- All cylinders, regardless of size, located alongside a building must be located at least 3 feet horizontally away from any building opening that is below the level of the pressure relief device.
- Weeds, long and dry grass, and other readily ignitable material must be removed within 10 feet of any container.
- Propane tanks subject to damage or tampering of any kind should be protected from such activity by means of fencing or other barricades.
- Propane tanks that are subject to potential vehicle impact should be protected by means of fencing, curbing or concrete bollards.
- A warning sign reading, "LP Gas Storage: No Smoking or Open Flames Within 50 Feet" should be conspicuously posted at the storage location.