

PROTOCOL FOR LPG CYLINDER IN LABS

- As a rule, the fuel gas loading should not exceed **1 kg per 25 m² of floor space**, in **well-ventilated** laboratories.

Note: Good practice is to avoid using flammable cylinder or minimize quantity inside lab.

Fuel gas cylinder size to be safely used within rooms is less than approximately 500g.

Although, (a single cylinder) of up to 1 kg may be used in large, well-ventilated spaces where the risk of ignition has been considered and controlled. This would allow some laboratories (eg. biological labs) to have two 400-500g gas cylinders in use/connected.

- The laboratory storage of replacement (disposable) gas cylinders be kept to a minimum and restricted to less than 1.5 kg. Any sources of ignition are eliminated near the gas cylinder when not being used.
- Use the cylinders only in well ventilated areas.
- The fire load of other hazards present inside labs must be low.
- Labs must have secondary emergency exits.
- The minimum distance between flammable and oxygen gas should be 20 feet.
- Keep the cylinder valves closed when not in use
- Ensure that the cylinder is always stored upright (vertical) and is not at risk of tipping over.
- Inspect the cylinder on a regular basis to ensure it is in good condition, free from rust and housed properly
- Ensure the cylinder is stored in an area that is adequately ventilated and not susceptible to excessive temperature rise.
- Store the cylinder in a secure location to protect against falling, damage, being hit by etc.
- Provide separate storage for LPG away from the oxidizing gases (e.g., oxygen) by at least six meters.
- Do not store the cylinder near an ignition source, or in locations that could jeopardize escape from the building in the event of a fire.
- “NO SMOKING” sign board to be placed near the cylinder storage area
- All kinds of hot works should be restricted in such labs with LPG cylinder.
- The flammable gas cylinders should not be placed near the entrance/exit to the lab.