U.S. fire departments responded to an estimated annual average of 1,170 home structure fires involving (liquefied petroleum) LP gas between 2003 and 2007. These fires resulted in 34 civilian deaths, 135 civilian injuries and $48 million in direct property damage. Spark, ember or flame from operating equipment was the leading heat source for LP-gas home structure fires.

- Always follow the manufacturer's instructions.
- If you use propane for your stove or oven, the tank must be mounted outside. Never use a propane grill inside.
- Don’t store or use propane cylinders larger than one pound inside your home.
- Have propane equipment inspected periodically for leaks or broken parts.
- Learn what propane smells like so that you can recognize a leak. Many retailers offer pamphlets with a scratch-and-sniff spot. If you use a lot of propane, you can also buy a leak detector.
- If you are inside and smell a leak, get everyone out of the building and call the fire department from your neighbor's phone.
- If the controls in any propane appliance have gotten wet (during a flood, for example), they may have been damaged. Have them checked (and replaced, if necessary).
- If you use a propane furnace, find out how to clean it and follow the instructions.
- If you use a propane hot-water heater, drain it once in a while to get rid of sediment.
- For propane stoves, make sure the burner flames are blue. If they are yellow, have the stove serviced because air inlets or burners may be clogged or out of adjustment.

Source: National Fire Protection Association