

LP gas is a camper's best friend. It provides us with warmth on a chilly day, hot water to shower with, cold food in the fridge and the capability to cook on the road the same way you do when you're at home. When we need it it's there, instantly providing us with all of the amenities and creature comforts we are accustomed to. We don't really even think about it, it's taken for granted that when you push that button, almost like magic it responds to your demands.

But what is LP gas? Should we be afraid of it, or just continue to take it for granted? Liquid propane, more commonly known as LP gas gets its name because it is stored in a liquid state. When LP gas is manufactured it is compressed and stored under pressure, which causes it to liquefy. When the pressure is released the liquid turns back into a vapor. LP gas is odorless, colorless and tasteless. To assist you in detecting a leak an odorant is added to it when it is manufactured. If you are not familiar with the odor of LP gas, the next time you go to a qualified fill station ask the attendant to let you smell it. Most people describe the smell as being similar to rotten eggs, or as having a garlic odor.

We'll get back to more characteristics of LP gas in a minute, but first let's address the second question. Should you be afraid of it? You should respect LP gas, because all gases have dangerous characteristics. If you check for gas leaks using an open flame you are certain to be in danger. I guess what I am trying to say is that LP gas is one of the safest of petroleum products if it is handled properly. More times than not, when there is an accident involving LP gas it is due to negligence or improper handling.

LP gas is portable, safe when handled properly and it's very efficient, so it only makes sense that it is used in RVs. I mentioned a moment ago that LP gas is compressed in a liquid state and stored in containers. Because of the amount of pressure involved the containers are manufactured under very stringent codes. There are two basic types of containers, Department of Transportation (DOT), and American Society of Mechanical Engineers (ASME). The DOT containers, more commonly called cylinders are the upright type that you see on Pop Up's, travel trailers, or your BBQ grill. The ASME cylinders are referred to as tanks and are mounted horizontally like the type you would see on a motor home.

Regardless of the type, all LP gas containers are only filled to 80% of their capacity to allow for expansion when the temperature around the container rises. LP gas cylinders are equipped with Overfill Protection Devices or OPD valves to prevent them from being overfilled.

LP gas can be measured in weight or in gallons. You may have heard somebody say that the gas cylinders on their travel trailer are 30 lb. cylinders, or they may say their cylinders hold 7 gallons apiece. One gallon of LP gas weighs 4.26 pounds.

When you open the valve to the gas cylinder the liquid gas turns back into a vapor and goes into a two stage regulator. In the first stage the pressure coming out of the cylinder

is reduced significantly close to the proper burning range for the LP gas appliances. The second stage reduces it to the required 11 inches of water column needed to run the appliances properly.

There is also an LP gas leak detector inside the RV that will set off an alarm to alert you if there is a gas leak. It's normally located close to floor level because LP gas is heavier than air and it will settle towards the floor. If you ever smell LP gas when you're camping, or if the LP gas leak detector goes off you could have a leak somewhere in the system. If this happens you should:

- Extinguish any open flames, pilot lights and do not smoke, or touch electrical switches.
- Evacuate the RV and turn off the main gas supply valve.
- Leave the door open and do not return to the area until the odor clears.
- Have the system checked out by a qualified technician before using it again.
- False alarms can be caused by hair spray, perfume, cleaning solvents and low battery voltage.

Let's take a moment and discuss some dos and don'ts concerning LP gas.

- ✓ Do remember to turn the main gas supply on when you're ready to use a gas appliance.
- ✓ Do have the system checked if you suspect a leak, disturb the gas system, or at least once annually.
- ✓ Do take the proper steps to safely transport, store and use LP gas cylinders.
- ✓ Do review all cautions and warnings on the LP gas system and appliances in your owner's manual.
- ⊗ Do not use an open flame to check for leaks.
- ⊗ Do not use the range burners or oven as a source of heat; it is not vented outside and depleted oxygen can cause asphyxiation.
- ⊗ Do not go to a gas station to refuel unless you extinguish any open flames and, or pilot lights and turn LP gas appliances off.
- ⊗ Do not transport LP gas cylinders inside a vehicle.
- ⊗ Do not be afraid of LP gas, but do respect it and handle it properly.

All of our RV walk-through videos and DVDs available at www.rveducation101.com cover information on RV holding tanks, the water system, LP gas system, electrical system and more.

Happy Camping,
Mark J. Polk

Mark Polk is the owner of RV Education 101, www.rveducation101.com RV Education 101 is a North Carolina based company that produces professional training videos, DVDs and e-books on how to use and maintain your RV.