

PROPANE FACTS

It is fairly well known that propane:

- Is heavier than air in its vapor form
- Is lighter than water in liquid form
- Weighs 4.2 pounds per gallon
- Vaporizes (boils) at -44° F (-42° C)
- Has an odorant (ethyl mercaptan) added so we can smell it
- Has a vapor pressure directly proportional to its temperature
- Is nasty stuff so we wear gloves when handling it

RANGE OF FLAMMABILITY

The range of percent of gas, in an air-gas mixture at atmospheric pressure, that will support combustion. For propane: 2.15 to 9.60%

PROPERTIES OF PROPANE

- One gallon of liquid propane will produce 272 gallons of propane gas.
- For perfect combustion, propane vapor in an air gas mixture should be 4%
- Air needed for combustion of one gallon of liquid propane is 6,528 gallons of air
- Total air-gas mixture is 6,528 gallons of air + 272 gallons of gas = 6,800 times the original propane volume
- A pint of liquid propane yields 272 pints of vapor or 4.5 cubic feet of propane vapor
- This pint will yield 1,134 cubic feet of combustible mixture – a box measuring 5'x5'x5'
- There are 120 pints in a 15-gallon stainless steel fuel tank

An average basket contains about 45 cubic feet.

At 4% propane gas, less than a cup is required for a combustible mixture in a basket

An enclosed trailer (4'x8'x5') contains roughly 160 cubic feet

At 4% propane gas, less than 3 cups is required for a combustible mixture

An average one car garage contains about 1,964 cubic feet

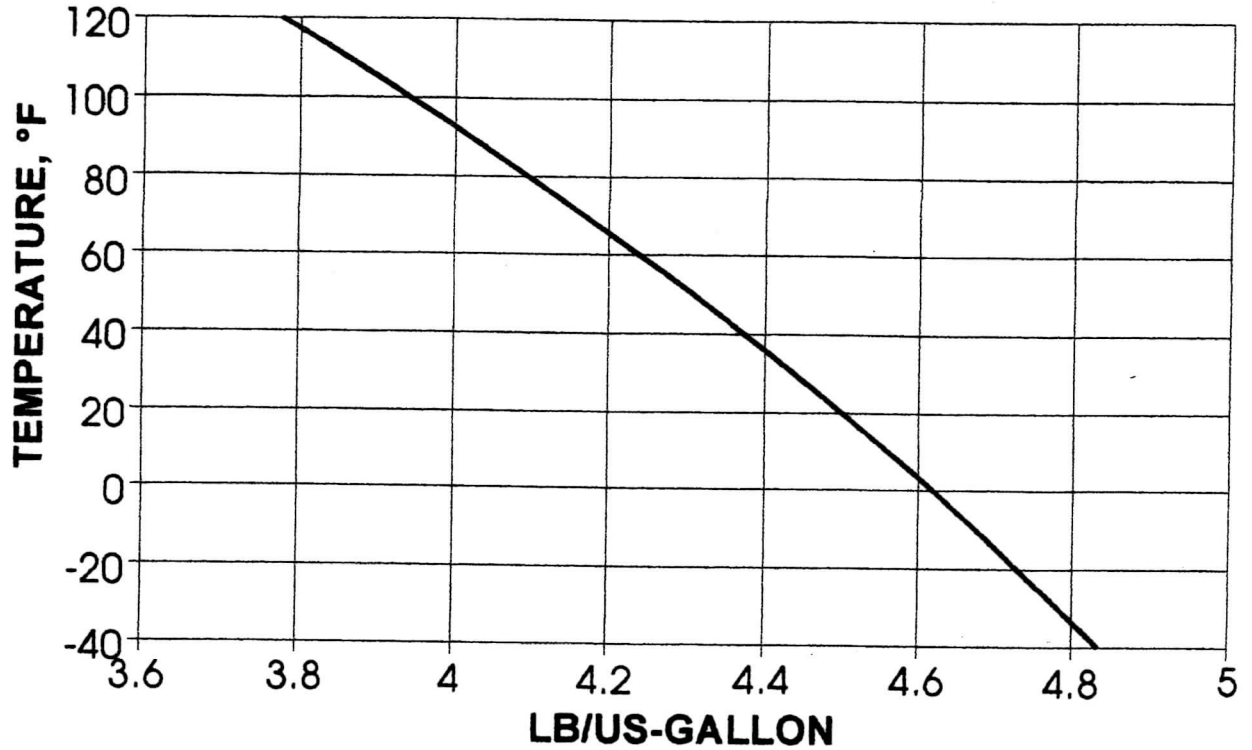
At 4% propane gas, about 2 gallons is required for a combustible mixture

ABNORMAL PROPANE SOURCES

Overheated tank relieving pressure – in a garage or trailer Bleeding raw propane after landing
Spitter valve during refueling Leaking fuel fitting

PROPANE DENSITY

LB/GALLON vs °F



Vapor Pressure vs. Temperature

