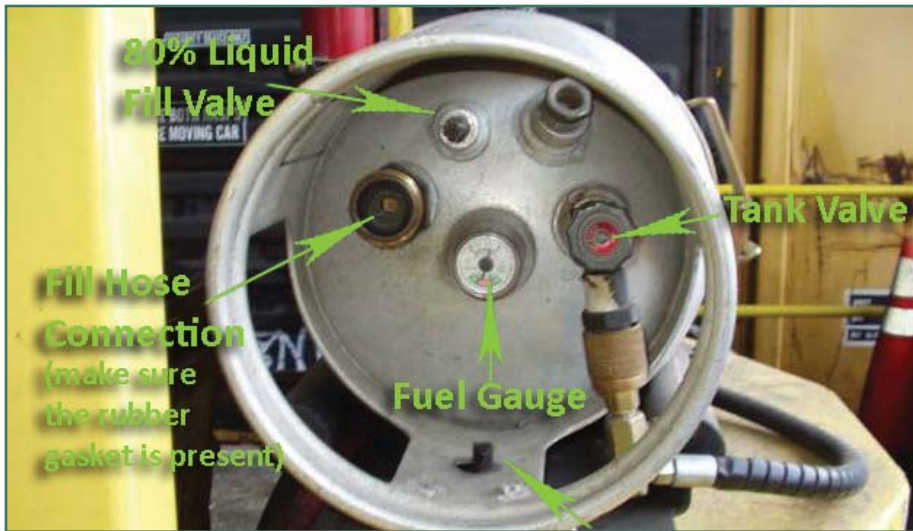


Propane Refueling Safety



Propane-What Is It?

Information About Propane

- Propane (C₃H₈) is a hydrocarbon that is sometimes referred to as Liquefied Petroleum Gas (LPG)
- Colorless gas or liquid with distinct odor (added) of commercial natural gas
- At normal pressures and temperatures above -44 F propane remains in its gaseous form
- If liquid propane leaks, it does not puddle but instead vaporizes and dissipates into the air
- Gases are heavier than air and travel along the ground to possible distant ignition sources
- Extremely flammable - vapor accumulation could flash and/or explode if in contact with open flame
- No spark producing operations in this area
- NFPA Rating: Health - 1, Flammability - 4, Reactivity - 0

Emergency Response to Propane Exposure

Because propane is released from a pressurized container as a vapor, it can't be ingested like gasoline or alcohol fuels.

Eye: The gas phase is not expected to cause eye irritation. If liquid enters eyes, contact first aid, and flush eyes for 15 minutes.

Skin: The gas is not irritating to the skin, however, in liquid form the liquid can cause frostbite or burns if it contacts the skin. The liquid on the skin is non-toxic to internal organs. If the liquid comes in contact with the skin, soak the affected area in tepid

water to alleviate the immediate effects and get medical attention.

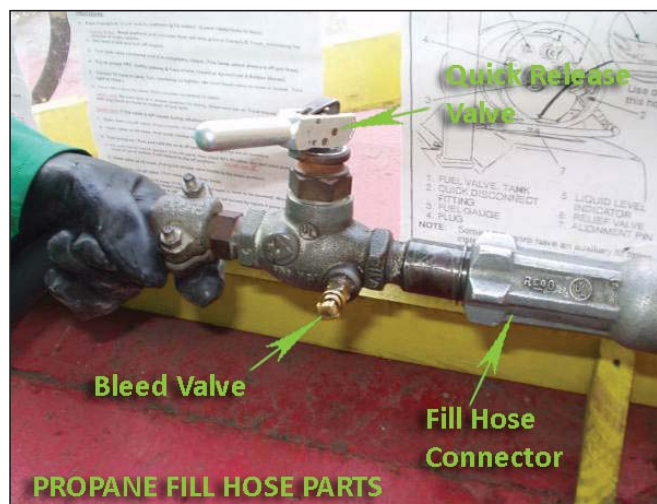
Ingestion: Propane is a gas and cannot usually be swallowed.

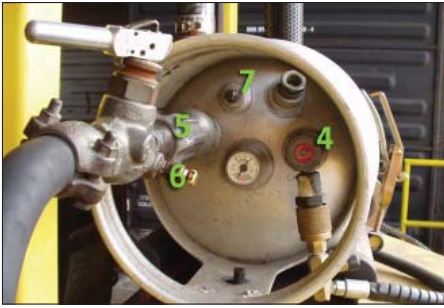
Inhalation: Propane acts as an asphyxiate by displacement of air if it is inhaled. If inhaled move the person to fresh air.

Signs or Symptoms of Inhalation: Rapid breathing, incoordination, rapid fatigue, excessive salivation, disorientation, headache, nausea, and vomiting are signs of inhalation. Exposure to high concentration may cause convulsions, loss of consciousness, coma, and/or death.

Propane Refueling - PPE

- Employees who refill propane tanks should wear all appropriate PPE:
 - Hard hat
 - Safety Glasses
 - Face Shield
 - Chemical Apron or Coat
 - Chemical Gloves





Procedures

1. Park the forklift or vehicle with the tank access toward the refueling area.
2. Ground the vehicle by lowering the lift attachment so it touches the ground, then shut off the vehicle. Grounding the vehicle minimizes the potential for static-sparks.
3. Put on your PPE. PPE is: face shield attached to hard hat, safety glasses, chemical apron/coat, and chemical gloves.
4. Close the tank valve (turn clockwise). This takes added pressure off the gas lines.
5. Connect "Fill Hose" to tank (turn clockwise to tighten).
6. Close bleed valve on "Fill Hose" (turn clockwise to close). If left open, could blow out and burn operator.
7. Open 80% Liquid fill valve on the tank (turn counter-clockwise to open). Make sure this valve is open to keep from overflow/explode tank
8. Open main cut-off valve to the fill hose (turn counter-clockwise to open).
9. Open valve on the fill hose (Pull quick release valve to up position.)
10. Turn on pump (Press/Hold the switch in the down position).
11. Fill the tank until liquid/vapors appear from the 80% Fill Valve on the tank and let go of the pump "on" switch (it will default to the "off" position).
12. Close the valve on the fill hose (pull quick release valve handle to the "down" position) and close 80% Fill Valve.
13. Danger: Do not fill tank any further after vapors appear from 80% Fill Valve. Failure to follow procedure could over pressurize tank and cause explosion
14. Close the main cut-off valve (turn the valve clockwise to close)
15. Open the bleed valve on the fill hose. This will allow stored vapors in hose to be released. When vapors finish bleeding, close the bleed valve.
16. Disconnect the propane fill hose from the propane tank.
17. Open the tank fuel valve.
18. Place fill hose in rack before leaving.

Note: Be sure tank is in proper position for filling. Make sure alignment pin is aligned with the alignment hole on tank.

SAFETY TRAINING SIGN-IN

Company Name: _____

Date: _____

Subject: Propane Refueling Safety

The following employees participated in this training.

1. _____
2. _____
3. _____

4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____

