

# Propane Safety Basics

## MAKE TIME FOR SAFETY TRAINING

When working with or around propane, safety isn't a sometimes thing: it should be top of mind, all the time. Propane is a safe and versatile fuel when properly used, which is why it's important to communicate the information presented here to your employees.

Utilize safety sheet and information on container labels to develop training materials about the propane systems your organization uses, and what to do in the event of a propane leak or other emergency. This is the best way to keep everyone in your organization safe.

## IMPORTANT PROPANE FACTS

Propane is known by several names, including Liquefied Petroleum Gas (LPG), or LP Gas. It's a liquid fuel that's stored under pressure, and in most systems, is vaporized to a gas before it leaves the container. Severe "freeze burn" or frostbite is possible if liquid propane comes into contact with skin.

Propane is naturally invisible and odorless. To make it easier to detect in case of a leak or spill, manufacturers add its unique odor.

When it mixes with air, propane is extremely flammable, and can be ignited by sources including open flames, smoking materials, electrical sparks, or even static electricity.

Propane vapor is heavier than air. This means it will accumulate in low-lying areas, such as basements, crawl spaces, ditches, or along floors. Air currents, such as those generated by HVAC systems, wind, or movement of people and equipment may result in leaking propane vapor being moved from the point of a leak to other parts of a building or outdoor areas. For this reason, if a leak is detected or suspected, valves should be promptly closed and the immediate and neighboring areas should be immediately evacuated.





### NOT EVERYONE CAN SMELL PROPANE

For various reasons, it may be difficult for some people to detect the odor of propane.

- Colds, allergies, sinus congestion, or other medical conditions can interfere with a person's sense of smell.
- Smoking, tobacco use, alcohol, and drugs, can inhibit a person's sense of smell.
- Tobacco smoke, cooking odors, industrial odors, or other strong scents can mask the smell of propane.
- The sense of smell can become less sensitive with age.
- People exposed to the smell over a period of time can experience "odor fatigue," meaning they no longer notice the odor of propane.
- If your organization has sleeping quarters, the smell might not be strong enough to wake up someone who is asleep.
- This gas may concentrate in a basement or other low-lying or confined areas such as a ditch, crawl space, or along floors where the odor may not be detected.



**Employers have an obligation to identify employees in the work place who are not able to smell propane.**

### PROPANE ODOR LOSS

This is an unintended reduction in the concentration of the odor of propane, making it more difficult to smell. Causes of odor loss include:

- Air, water, or rust in a propane container or cylinder can reduce the propane odor concentration.
- If the propane is leaking underground, its passage through soil or other materials may reduce the odor.
- The propane odor can sometimes stick to the inside surfaces of gas piping, distribution systems, and other materials.

### KNOW PROPANE'S SMELL

Propane is naturally invisible and odorless. For safety, propane's distinct odor is added to it, to alert you to possible leaks. The smell has been compared to skunk spray, garbage, sewage, and even a dead animal. Ensure that employees familiarize themselves with propane's smell so they'll recognize it in the workplace.



### FOR MORE INFORMATION

Keep your workforce safe and your job sites productive with the propane and construction safety resources available at **Propane.com**.

THE PROPANE EDUCATION & RESEARCH COUNCIL was authorized by the U.S. Congress with the passage of Public Law 104-284, the Propane Education and Research Act (PERA), signed into law on October 11, 1996. The mission of the Propane Education & Research Council is to promote the safe, efficient use of odorized propane gas as a preferred energy source.

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