



Safety Guide for Propane Users

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Read and follow the safety instructions in this pamphlet to reduce the risk of fire, explosion, and serious injury or death.

Share this information with everyone else in your home.

Keep this pamphlet or access it anytime at propane.com/safety.

Este folleto contiene información importante acerca de la seguridad relacionada con el gas propano: Pida su versión en español a su vendedor de gas propano o ir a propane.com/safety.



1

What to Do If You Suspect a Leak

A propane gas leak is an emergency. It can result in fire and explosion.

Be prepared to respond.

If You Suspect a Gas Leak

1

GET AWAY IMMEDIATELY

Get everyone out of the building or area where you suspect a gas leak.



2

AVOID CREATING SPARKS

As you leave, avoid igniting the leaking gas. Some electrical devices and appliances can create sparks when manipulated.



- DO NOT turn any light switches **on or off**.
- Do not interact with any appliances, outlets, or landline phones.
- No smoking, vaping, or open flames.

3

STAY AWAY AND REPORT THE LEAK

Once safely away, call your propane retailer, 911, or the fire department. Stay away from the suspected gas leak until your propane retailer, emergency responder, or qualified professional determines that it is safe to return.



Turn off gas at the tank(s), unless you suspect there is a leak at the tank(s). To close the valve, turn it to the right (clockwise).



Before using any propane appliances again, have your entire propane system checked by your propane retailer or a qualified professional to make sure there are no leaks.



Indicators of a Gas Leak

PROPANE ODOR

A unique odor is added to propane to help alert people to a leak. Make sure everyone in your household knows what propane odor smells like. If you do not know what propane smells like, ask your propane retailer for a sniff of the gas or additional information.



If you smell a bad odor and are not sure of the source, it may be a gas leak. Take action!

PROPANE GAS DETECTOR ALARM

Propane gas detectors can identify leaks even when propane is not smelled. See page 4 to learn about propane gas detectors.

SOUND OF HISSING GAS

A hissing sound may indicate that gas is escaping from a component of your propane system or appliance.

UNUSUAL USAGE

If you are using more gas than you expect, there may be a leak.

You Might Not Smell a Gas Leak if:

The propane odor does not get to your nose.

- The propane odor may be present in an area where there are no people, such as a basement, attic, crawl space, or unoccupied room.
- Because propane is heavier than air, it may settle near the floor.
- Airflow may move or disperse the propane odor.

OR

Your ability to notice the odor is reduced. Reasons may include:

- A cold, allergies, sinus congestion, or other medical condition.
- Tobacco, alcohol, or drug use.
- Being older.
- Being asleep.
- "Odor fatigue." This could occur when the propane odor is present for a period of time and your nose "gets tired" and you no longer smell it.
- The presence of other strong odors, such as tobacco smoke, cooking odors, or musty or damp smells, masking propane odor.

OR

Propane has lost its odor.

The odor that is added to propane can sometimes be absorbed by substances such as soil, water, or rust, making it more difficult to smell ("odor loss").

You Should Install Propane Gas Detectors

Propane gas detectors can identify leaks you do not smell. Use a propane gas detector that senses propane and always follow the manufacturer's instructions for installation, use, and care.

NOTE: Propane gas detectors are different from smoke detectors and carbon monoxide detectors, although some combination detectors are available.

Respond immediately to a propane leak.

If the alarm sounds, do not go toward the alarm. Treat it as an emergency and act immediately, even if you do not smell propane odor.

NEVER ignore the smell of propane odor, even if your propane gas detectors do not alarm.

If Your Gas Runs Out or Is Shut Off

A qualified professional must check the propane system for leaks when turning the gas on.

Never turn the gas on at the propane tank yourself.

Be sure any pilot lights are properly relit as soon as the gas is turned back on.

APPLIANCE NOT WORKING?

You may be out of gas.

HOW CAN I AVOID RUNNING OUT OF GAS?

Check the fuel gauge on your propane tank periodically.
Discuss delivery options and timing with your propane retailer.

LEAVING HOME FOR AN EXTENDED PERIOD?

You do not need to turn off your gas supply.

When to Use a Qualified Professional

Safety codes in every state require a “qualified person” for certain tasks.

A “qualified person” is experienced, familiar with required precautions, and complies with all requirements.

Never try to install, modify, or repair your propane system or appliances.

Improper installation or service of propane appliances or equipment can result in a gas leak, fire, explosion, and serious injury or death.



USE A QUALIFIED PROFESSIONAL:

For installations and service, such as:

- Any service or changes to the gas distribution system, including tanks, cylinders, pipes, and their components.
- Installing, disconnecting, or relocating a propane appliance.
- Replacing, installing, or inspecting propane appliance connectors.

For scheduled maintenance – When your appliance manufacturer’s maintenance schedule indicates service is due.

If there is a problem, such as:

- Propane appliances or system not operating properly.
- Problems with your pilot lights.
- Soot buildup on equipment. (This may indicate gas is not burning completely.)
- Evidence of blocked vents (for example, from nests, snow, or ice) that you are unable to clear.

If you run out of gas or if the gas is shut off.

2

Propane Appliances & Maintenance



Lighting Pilot Lights

Lighting or troubleshooting pilot lights improperly can cause fire and explosion.



WHAT IS A PILOT LIGHT?

Some propane appliances use a small, constantly burning flame, called a pilot light, to ignite the main burner when needed. Check the appliance manufacturer's information to find out if it has a pilot light.

WHY DO PILOT LIGHTS GO OUT?

- If you run out of gas or turn off the gas to an appliance.
- Too much or not enough ventilation.
- A problem with the appliance or propane system.

A QUALIFIED PROFESSIONAL CAN SAFELY LIGHT PILOT LIGHTS AND ADDRESS PROBLEMS.

IF YOU CHOOSE TO LIGHT YOUR PILOT LIGHTS:

- Follow the appliance manufacturer's instructions.
- If you suspect a gas leak, do not attempt to light.
- If a pilot light is difficult to light or repeatedly goes out, **NEVER try to fix or troubleshoot the problem yourself.** Never try to let air out of the gas line – you will release gas. Contact a qualified professional to evaluate the appliance.



Maintain Your Propane Appliances



FOLLOW APPLIANCE MAINTENANCE SCHEDULES

All appliances using propane must be maintained properly in order to operate safely, properly, and efficiently. Only a qualified professional has the proper training to install, service, maintain, and repair your appliances.



Contact a qualified professional to inspect your propane appliances in accordance with the manufacturer's instructions and schedule. For example, furnaces are often checked before each heating season begins.

BE SURE YOUR APPLIANCES CAN "BREATHE" PROPERLY

Appliances need air for proper combustion, and exhaust gases need to flow to the outdoors. Ventilation problems can result in high carbon monoxide levels in the home (*see page 12*).

- Keep the area around your appliance clear to be sure plenty of air can reach the burner for proper combustion.
- In wintry weather, keep the area around vents clear of snow and ice.
- Check appliance vents for obstructions such as insect, bird, or small animal nests. Call a qualified professional if you see evidence of blockages.

Never store anything that can burn (such as paper, clothing, gasoline, or solvents) near appliances.



WATCH FOR SOOT BUILDUP

If you notice any soot (for example, on an appliance, vent, or heating register), the gas may not be burning completely, which can cause higher levels of carbon monoxide. Contact a qualified professional.



Keep Flammable Gases, Vapors, and Liquids Away from Propane Appliances



Flammable gases and vapors from cleaning fluids, paint thinners, gasoline, and other flammable liquids can be ignited by propane appliances. Follow the manufacturer's instructions for safe use and storage.

Flammable gases and vapors may travel along the ground and collect in low or confined areas, or follow air currents to higher levels in a building. Appliances can also draw in flammable gases or vapors as they draw in air during operation.

Getting a New Propane Appliance

BE SURE THE APPLIANCE IS SUITABLE FOR USE WITH PROPANE

When selecting a new appliance, make sure it is designed for use with propane. Some natural gas appliances can be converted to use propane by a qualified professional.

Have the appliance installed by a qualified professional.



GAS CAN LEAK THROUGH AN OPEN GAS LINE

Plan ahead! If an appliance is going to be disconnected from a gas line, even if you will not be installing a new appliance, a qualified professional must cap or plug the open gas line.

If you become aware of an open gas line, contact a qualified professional to cap or plug the open gas line.

Properly Install and Maintain Appliance Connectors



WHAT IS AN APPLIANCE CONNECTOR?

An appliance connector is the flexible tubing that serves as the final section of the propane system that brings gas to your appliances. Connectors must be specifically designed for use with propane appliances. Connectors that are improperly installed or that are damaged can leak gas.

PROFESSIONAL INSTALLATION, MAINTENANCE, AND REMOVAL REQUIRED

- Have appliances installed by a qualified professional.
- Do not install, loosen, or disconnect appliance connectors yourself. All appliance connectors must be properly installed, inspected, maintained, and disconnected by a qualified professional.
- Over time, some types of appliance connectors can crack or break, resulting in a gas leak. A qualified professional can inspect appliance connectors to be sure they are safe and meet current code requirements.

AVOID STRESSING CONNECTORS

Connectors can crack or break when flexed or twisted, such as when an appliance is moved. Use care near connectors, such as when cleaning. If you damage a connector, turn off the gas and contact a qualified professional.

Use Propane Space Heaters Safely



USING A SPACE HEATER DESIGNED FOR OUTDOOR USE INDOORS CAN BE DEADLY.

Heaters that are not designed to be used indoors can generate high levels of carbon monoxide.



FOLLOW MANUFACTURER'S INSTRUCTIONS

for how to safely use the appliance.

Bad Weather: Protect Your Propane System

FLOODWATER CAN DAMAGE YOUR PROPANE SYSTEM

If flooding is predicted, turn off the gas valve at the cylinder or tank **before** the water rises.

Contact a qualified professional to turn the gas back on, check your propane system and appliances, and address any flood damage.



WHAT IF SOMETHING DOES NOT LOOK RIGHT AFTER A STORM?

Never enter an area if you suspect a gas leak. If you observe that your tank has shifted position or that gas lines are bent, broken, or damaged, turn off the main gas supply valve at your tank(s) unless you suspect there is a leak at the tank(s).

CLEAR THE SNOW

Snow and ice can damage system components, causing a gas leak. They can also block ventilation, causing high carbon monoxide levels in the home.

- Keep heavy snow and ice off of propane piping, regulators, and meters. When clearing snow, be careful to avoid damaging components. For example, use a broom rather than a shovel.
- Keep the area around appliance vents clear of snow and ice so appliances can take in fresh air and vent out exhaust gases properly. This is especially critical on the roofs of mobile homes.

Also, clear the walkway and tank area so that propane-company personnel have ready access to your tank.

NEVER TRY TO HEAT UP A TANK

In the event of extreme cold, NEVER try to keep propane storage cylinders or tanks warm by applying an external heat source.

Visit [propane.com/safety](https://www.propane.com/safety) for more information about how to take care of your propane system in these and other types of weather emergencies. *Contact your propane retailer if you have any questions or concerns.*



3

Carbon Monoxide Safety



Carbon Monoxide Can Be Deadly. Be Prepared To Respond.

WHAT IS CARBON MONOXIDE (CO)?

Carbon monoxide is a poisonous gas that is colorless, odorless, and tasteless. High levels of carbon monoxide can cause brain damage or death. Young children, the elderly, people with heart disease, and those under the influence of alcohol, drugs, or medication are particularly susceptible to carbon monoxide poisoning.

WHERE DO UNSAFE LEVELS OF CARBON MONOXIDE COME FROM?

Unsafe levels of carbon monoxide can be generated by appliances that are defective or improperly installed, operated, or maintained, or have air intakes blocked. Carbon monoxide can also enter a home if an appliance venting system or chimney becomes blocked (for example, by a bird's nest). *See page 15 for how to reduce your risk of carbon monoxide poisoning.*

IF YOU SUSPECT CARBON MONOXIDE IS PRESENT

1 LEAVE IMMEDIATELY

Everyone should get out of the building and away from where carbon monoxide is suspected.



2 CALL 911 OR THE FIRE DEPARTMENT

Once safely away, call 911 or the fire department to report the presence of carbon monoxide.



3 STAY AWAY

Stay away from the suspected carbon monoxide until an emergency responder or other qualified professional tells you it is safe to return.



Indicators That Unsafe Levels of Carbon Monoxide May Be Present

CARBON MONOXIDE DETECTOR ALARM

Carbon monoxide detectors sound an alarm when they sense excessive levels of carbon monoxide in the air.

EXPERIENCING PHYSICAL SYMPTOMS

Exposure to high levels of carbon monoxide can cause symptoms like:

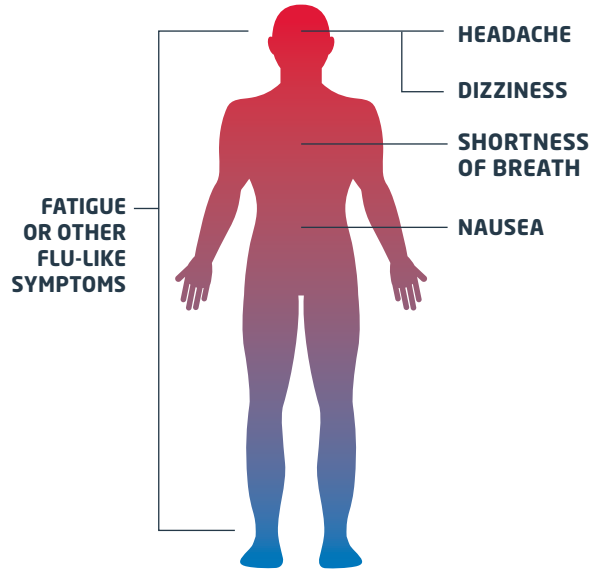
- Fatigue
- Nausea
- Dizziness
- Headache
- Shortness of breath
- Other flu-like symptoms

IMPROPER APPLIANCE OPERATION

Unsafe levels of carbon monoxide can be created when fuels are not burning properly or appliances are malfunctioning. Signs that this might be happening include:

- Soot, especially on appliances and vents
- Unfamiliar or burning odor
- Increased moisture inside windows

SYMPTOMS OF CARBON MONOXIDE POISONING INCLUDE:



To Reduce the Risk of Carbon Monoxide (CO) Poisoning:

USE CARBON MONOXIDE DETECTORS

Carbon monoxide detectors sound an alarm when they sense excessive levels of carbon monoxide in the air. (Carbon monoxide detectors are different from smoke detectors and propane gas detectors, although some combination detectors are available.) Install a UL-listed carbon monoxide detector on each level of your home. Follow the manufacturer's instructions.

HAVE APPLIANCES CHECKED ON SCHEDULE

Have a qualified professional check your propane appliances in accordance with the manufacturer's instructions and schedule. For example, furnaces are often checked before each heating season begins.

KEEP CHIMNEYS AND INTAKE AND EXHAUST VENTS CLEAR:

- Regularly check your appliance air intake and exhaust vents to be sure that air can flow in for the gas to burn properly and exhaust gases can flow easily to the outdoors.
- Keep vents and chimneys free of debris such as leaves and animal nests. In winter, keep them free of snow and ice.
- Always open the chimney damper when you use your fireplace.

POSITION AND USE VENT-FREE APPLIANCES CORRECTLY

Always follow the manufacturer's instructions for placement and use of vent-free appliances, including fireplaces and logs.

HEAT ONLY WITH APPLIANCES INTENDED FOR INDOOR HEATING

- Never use a gas oven or range-top burners to provide heating.
- Never use portable heaters indoors, unless they are designed and approved for indoor use.
- Never use a barbecue grill (propane or charcoal) indoors for heating or cooking.

ONLY RUN INTERNAL COMBUSTION ENGINES OUTDOORS

Never run an internal combustion engine, such as your car, lawn mower, generator, or snow blower, in enclosed areas such as your garage.



WATCH FOR SIGNS

that appliances might be operating improperly. See page 8 for more information.



4

Portable Propane Cylinders



If You Suspect a Cylinder Leak

Signs of a cylinder leak may include a propane odor, hissing gas, visible cloud of propane, or flames at the cylinder.

IF THERE ARE SIGNS OF A LEAK:

No smoking, vaping, or open flames.



If there are no flames or visible cloud of propane at the cylinder, **close the cylinder valve** (turn valve clockwise).



Leave the area, then call 911 or the fire department.



Before using the cylinder and appliance again, have a qualified professional inspect them.



Propane Cylinder Safety

Keep away from sources of ignition (such as smoking/vaping, sparks, flames) while handling or transporting cylinders.



Keep the cylinder upright

Make sure it will not fall, shift, or roll.



Keep the valve closed

- when the appliance is not in use.
- when not connected to an appliance.

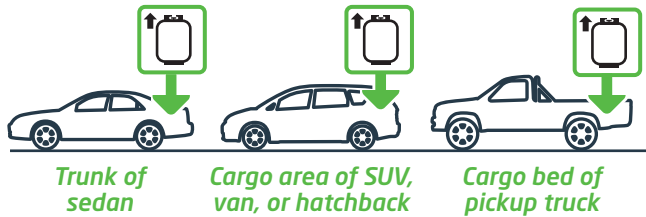


Transporting Cylinders

NEVER TRANSPORT A LEAKING CYLINDER

SECURE CYLINDERS UPRIGHT

Make sure they will not shift or roll. Avoid transporting in passenger area. If possible, secure in:



DO NOT LEAVE CYLINDERS IN YOUR VEHICLE

Drive directly to your destination and immediately remove the cylinders from your vehicle. Do not leave cylinders inside the vehicle or trunk. The pressure relief valve (if the parked vehicle gets too hot) or a leak may release propane, filling the enclosed space with flammable gas.

HOW MUCH PROPANE CAN I TRANSPORT?

U.S. LEGAL LIMITS FOR CLOSED-BODIED VEHICLES:

- No more than four (4) 20-pound cylinders.
- No cylinders larger than 45-pound capacity.
- No more than 90 pounds total propane weight.

U.S. LEGAL LIMITS FOR AN OPEN CARGO BED:

- No more than 1,001 pounds total propane and container weight.

There may also be state or local restrictions – ask your propane retailer for more information.

WAYS TO SECURE A CYLINDER

- Tie-downs/straps
- Propane cylinder stabilizer
- Cardboard box, milk crate

Storing Small Cylinders

NEVER USE OR STORE IN AN ENCLOSED AREA

such as a basement, garage, shed, or tent. Even an “empty” cylinder may contain enough propane to be hazardous.



KEEP CYLINDERS OUTSIDE and away from sources of ignition and things that generate heat.

- The cylinder is designed to be kept outside in any weather, even full summer sun.
- Additional heat (for example, from a heating appliance or fire) can cause pressure to build up inside the cylinder. If this happens, the pressure relief device might release propane.
- Released or leaking propane can be ignited or collect in an enclosed area.



KEEP SPARE CYLINDERS AWAY FROM PROPANE APPLIANCES

Do not put a spare propane cylinder (i.e., a cylinder that is not connected to the appliance) under or near a grill or other propane appliance.



WHY IS IT OK FOR THE CYLINDER IN USE TO BE NEAR A GRILL?

Physics! Have you ever used a can of compressed air, hairspray, or spray paint and felt the can get cold?

Similarly, propane changes from liquid to gas and expands as it leaves the cylinder. This causes the remaining propane in the tank to cool. So even as the grill heats up, the cylinder cools down.

This also means that if leaking propane comes into contact with your skin, you can get frostbite.

Testing for Propane Leaks



IT IS IMPORTANT TO INSPECT FOR LEAKS

Do this before the first time you use the propane cylinder and appliance each season, as well as each time you connect a cylinder and appliance. This can be accomplished with a simple "bubble" test (*scan QR code below for video*):

- 1 Apply leak detector solution or thick soapy water to the entire valve area and point of connection.
- 2 Slowly open the cylinder valve and watch for bubbles.
- 3 If bubbles appear, close the cylinder valve, tighten the connection, and repeat the process. If bubbles still appear, close the cylinder valve and call your propane retailer immediately.



VIDEO AVAILABLE!

Scan QR code with cell phone camera.

propane.com/small-cylinders-safety



DO NOT REPAIR OR MODIFY



NEVER repair or modify propane cylinders. Exchange your cylinder or call your propane retailer or qualified professional for service.

DAMAGED OR UNWANTED CYLINDERS



NEVER use a damaged cylinder or one that has been in a fire.



Dispose of damaged or unwanted cylinders properly.

Never throw a propane cylinder in the trash. Check to see if there are municipal programs for cylinder disposal in your area, or contact your propane retailer for guidance.

OVERFILL PREVENTION DEVICE (OPD) REQUIRED

Only use cylinders with an Overfill Prevention Device (OPD).

An OPD is a safety feature that is required by law. Most cylinders with an OPD have a special triangular handwheel with the letters "OPD" on it.

If your cylinder does not have an OPD or you are not sure, do not use it. Take it to a propane retailer and exchange for a cylinder with an OPD, or purchase a new cylinder.



Safety Checklist

THINGS TO DO RIGHT NOW:

- INSTALL PROPANE GAS DETECTORS**
Propane gas detectors sound an alarm if they detect a leak, even if no one smells it. Follow manufacturer's instructions for installation, use, and care.
- CHECK YOUR CARBON MONOXIDE AND SMOKE DETECTORS**
Make sure all your detectors are in working order. Install carbon monoxide and smoke detectors if you do not have them already. Follow manufacturer's instructions for installation, use, and care.
- CHECK FOR FLAMMABLE MATERIALS NEAR PROPANE APPLIANCES**
Move anything that can burn (such as paper, clothing, gasoline, or solvents) away from any propane appliances.
- CHECK FOR PROPER STORAGE OF SMALL CYLINDERS**
Make sure any small propane cylinders you have are properly stored (see page 19). Properly dispose of any cylinders that are damaged or unwanted.
- LEARN ABOUT YOUR PROPANE SYSTEM**
Request a visit from your propane retailer to learn what's "under the dome" on the top of your propane tank. Identify the shut-off valves, regulators, and safety relief valve, and learn how they operate.

SHARE THE INFORMATION IN THIS BOOKLET WITH EVERYONE IN YOUR HOME OR BUILDING

- REVIEW PROPANE ODOR**
Make sure everyone knows what propane smells like. If anyone does not know what propane smells like, ask your propane retailer for a sniff of the gas or additional information.
- USE THE TEST BUTTON ON YOUR HOME'S DETECTORS**
for smoke, carbon monoxide, and propane gas to let everyone hear what the alarms sound like.
- REVIEW THE SIGNS OF HIGH LEVELS OF CARBON MONOXIDE**
Make sure everyone knows the signs, symptoms, and dangers of high levels of carbon monoxide. *See page 14.*
- REVIEW EMERGENCY PROCEDURES**
Make sure everyone knows what to do if they suspect a gas leak or high levels of carbon monoxide. *See inside front cover and page 14.*
- TALK WITH YOUR CHILDREN**
Make sure they understand the following safety tips:
 - If you smell propane or hear a detector alarm, tell an adult right away and then go outside.
 - Leave appliances alone. Do not turn or play with the knobs or other controls on a stove, oven, water heater, or other appliance.
 - Leave the propane system alone. Do not play around or climb on a propane tank, gas line, appliance, or other parts of the propane system.

THINGS TO DO AS NEEDED:

IF YOU RUN OUT OF GAS OR SERVICE IS INTERRUPTED

If your propane tank runs out of gas or if the gas service is interrupted, have your propane retailer or a qualified professional perform a leak check, restore gas service, and, if needed, light your pilot lights.

FOLLOW APPLIANCE MAINTENANCE SCHEDULE

Contact a qualified professional to inspect your propane appliances in accordance with the manufacturer's instructions and schedule. For example, furnaces are often checked before each heating season begins.

CONSIDER YOUR PROPANE DELIVERY NEEDS

Check the fuel gauge on your propane tank periodically. Contact your propane retailer to discuss delivery options and timing.

IF A GAS LINE IS DISCONNECTED

If a gas line is going to be disconnected, be sure the unconnected line is plugged or capped and any valve to the line is closed. Contact your propane retailer or a qualified professional to do this job safely.

ICE AND SNOW

Carefully clear snow and ice from propane piping, regulators, and meters as well as from the area around your tank. Keep the area around appliance vents clear.

AFTER A STORM

After high winds, heavy rain, or any other weather emergency, check your propane tank and system. If anything appears to have been damaged, contact your propane retailer right away.

If You Suspect a Gas Leak



**Get away
immediately!**



**Avoid
creating
sparks.**



**Stay away
and report
the leak.**

See inside front cover for details.

FOR MORE INFORMATION ABOUT PROPANE SAFETY

Scan QR code with cell phone camera.
propane.com/safety



Keystone

PROPANE