

General obligations concerning occupational health and safety

Use of Propane

1. This information sheet is for producers (employers), suppliers, operators and users of propane devices.
2. Producers and suppliers must ensure that any propane device is installed in accordance with the existing standards and by a technician with the appropriate gas certification (certificate of qualification issued by Emploi Québec).
3. The installer of the devices must ensure that the manufacturer's instructions are provided with all devices.
4. Propane gas and carbon monoxide detectors must be installed and inspected in compliance with the manufacturer's standards.
5. Devices, props, components, instrumentation and materials used in an installation must be approved in accordance with the standards for propane gas use with regard to their type and classification for the specific use for which they are intended. Domestic devices may not be used for commercial purposes.
6. The staff in charge of using the propane devices must be informed and trained.
7. A safe lighting and extinguishing protocol must be posted for all devices.
8. When a gas leak is detected, the emergency evacuation plan must be deployed.

Properties of Propane Gas

Propane gas has the following properties:

- It is a gas that is heavier than air. It collects at ground level and can infiltrate drains, air vents and other openings near the ground.
- It requires a great deal of air for good combustion.
- Incomplete combustion in a device (forklift or other) can lead to a danger of carbon monoxide (CO) poisoning.





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Safety Criteria for Propane Bottles

To be safe, propane bottles must meet the following criteria:

- Comply with current regulations
- Be kept away from sources of heat and be kept at temperatures below 50°C
- Be kept at least three metres away from any source of ignition (e.g., car battery)
- Be attached in an upright position or fastened in a stand when in use

The valve on the bottle must be:

- In the “closed” position when the bottle is not in use, even if it is empty
- Easily accessible
- Equipped with a sealing plug or dust cap for any reusable bottle of 20 kg (45 lb.) or less

Safety Measures to Take When Using Propane Gas

When propane gas is used, the following safety measures must be in place:

- A propane gas detector must be functional at all times and installed at the base of the walls at about 7.5 cm (3 inches) from the floor.
- A carbon monoxide (CO) detector must be functional at all times and installed in all locations where propane is used.
- All premises must be adequately ventilated.
- A fire extinguisher must be installed and accessible within 60 cm (2 ft.) of the main door.
- Electrical facilities must comply with the Electric Code, Chapter V of the Québec Construction Code.

Transport

When propane bottles are being transported, the instructions below must be followed:

- The Transportation of Dangerous Substances Regulation must be obeyed (also see the Ministère des Transports, de la Mobilité durable et de l'Électrification des transports *Transportation of Dangerous Substances Guide*).
- It is prohibited to transport propane bottles in a vehicle unless the area for their carriage is ventilated to the outside.
- The labels must be visible.
- The valves must be closed and the bottles must be secured in a stand or attached with a strap so they cannot tip over.
- If a bottle is mounted outside a vehicle in the back, it must be protected by extending the bumpers beyond the bottle using a type of material with a resistance at least equal to that of the bumpers.



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- A bottle **may not** be mounted on the roof or on a door, in front of the front windshield of a motor vehicle or extending beyond either side of the vehicle.
- For a trailer, the bottles must be attached in accordance with the trailer manufacturer's standards.
- In the Louis-Hippolyte-Lafontaine, Ville-Marie and Viger tunnels (in Montréal), the Joseph-Samson tunnel (in Québec City) and the access roads for the Melocheville tunnel, the maximum quantity allowed is two bottles with a capacity not exceeding 46 litres.
- A partial exemption from the obligation to have the shipping document and training certificate for the transport of hazardous materials is granted if the following conditions are met:
 - Carry five or fewer bottles (small containers)
 - Not exceed 500 kg in gross mass
 - Ensure labels are visible from the outside of the vehicle
 - Secure the bottles appropriately

Storage

When propane bottles are stored, they must be:

- Stored outdoors
- Kept upright, with the valve closed and far from any source of ignition (e.g., car battery)
- Stored separately from other gases
- At least 6 m (20 ft.) from any flammable material
- Protected from any risk of damage
- Sheltered from any unauthorized handling, protected by a fence or other equivalent measure (e.g., storage cabinet)

Mobile Kitchens

Mobile or “craft” kitchens that use propane gas must follow the instructions below:

- The premises must be configured safely to allow for the rapid evacuation of the staff. There must be two emergency exits opposite each other.
- The premises must be equipped with an adequate ventilation system.
- A safe lighting and extinguishing protocol must be posted for all devices.

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References

- Natural Gas and Propane Installation Code* (CSA B149.1-15).
- Propane Installation Code* (CAN/CGA B149.2-M91).
- Construction Code*, CQLR, chapter B-1.1, r. 2.
- Safety Code*, CQLR, chapter B-1.1, r. 3.
- Propane Storage and Handling Code* (CSA B149.2-15).
- Information Sheet 1 on General Obligations of the Executive Producer or Line Producer.
- Information Sheet 4 on Fire Prevention.
- Information Sheet 10 on Electricity.
- Information Sheet 10.1 on Electric Installations.
- Act Respecting Occupational Health and Safety*, CQLR, chapter S-2.1.
- Transportation of Dangerous Substances Guide*, Québec, Ministère des Transports, 2015.
- Regulation respecting occupational health and safety*, CQLR, chapter S-2.1, r. 13.
- Règlement sur les certificats de qualification et sur l'apprentissage en matière de gaz, de machines fixes et d'appareils sous pression*, RLRQ, chapitre F-5, r. 2.
- CNESST Répertoire Toxicologique*, [<http://www.reptox.csst.qc.ca>].
- Standard on recreational vehicles* (NFPA 1192-2015).

Written by the Technical Committee of the film and video industry's joint sector-based working group

- International Alliance of Theatrical Stage Employees, Moving Picture Technicians, Artists and Allied Crafts of the United States, Its Territories and Canada (IATSE), local 514
- International Alliance of Theatrical Stage Employees, Moving Picture Technicians, Artists and Allied Crafts of the United States, Its Territories and Canada (IATSE), local 667
- Alliance of Canadian Cinema Television & Radio Artists (ACTRA)
- Alliance québécoise des techniciens de l'image et du son (AQTIS)
- Association québécoise de la production médiatique (AQPM)
- Directors Guild of Canada Conseil du Québec (DGC - Québec)
- Union des artistes (UDA)
- Commission de la santé et de la sécurité du travail (CSST)

The information contained in this Guideline does not replace current standards, laws and regulations.