

Written by the Technical Committee of the film and video industry's joint sector-based working group and produced by the Commission de la santé et de la sécurité du travail du Québec.



ASSOCIATION DES  
PRODUCTEURS DE  
FILMS ET DE  
TÉLÉVISION DU  
QUÉBEC

## Flammable liquids

1. Flammable liquids must be handled and stored in such a way as to avoid spilling them or having them catch fire.
2. Smoking is prohibited in any area where flammable vapours or gases could be present. Flammable liquids must be kept away from sources of heat, particularly torches, candles, fireplaces or open flames.
3. Containers, piping and equipment containing flammable liquids must be kept in good condition.
4. Floors or surfaces on which flammable liquids have been spilled must be immediately cleaned, as specified in the material safety data sheet (WHMIS).
5. Flammable liquids must be stored separately to prevent them from mixing with other substances that could cause a fire or explosion, or produce flammable or toxic vapours.
6. When storing flammable liquids, all exits, stairs or areas allowing safe evacuation of the premises must be kept clear.
7. Flammable-liquid storage rooms must be constructed and organized in compliance with the fire protection standards for buildings (municipal and provincial regulations). For example, when flammable liquids are stored inside a closed building, they must be kept in a ventilated room with a fire resistance of at least two hours.
8. If cupboards are used, no more than 454 litres (120 US gallons) of class I, II and III A solvents and no more than 227 litres (60 US gallons) of class I and II solvents may be stored. Wooden or metal storage cupboards must be built according to precise standards.
9. Fire hoses of at least 1.3 cm or portable 40 rating fire extinguishers for class B fires must be located within 3 m of flammable-liquid storage areas.
10. Locations where class I liquids are poured or transferred from one container to another must be equipped with a continuous mechanical ventilation system with a capacity of at least  $0.3 \text{ m}^3/\text{min}/\text{m}^2$ . This system must be able to maintain solvent vapour concentrations below 25% of the lower flammable limit.
11. If flammable liquids (class I) are transferred from one container to another more than one metre from electrical installations, these installations must be class I division 2; if they are transferred at one metre or less, the installations must be class I division 1.
12. When transferring flammable liquids from one container to another, grounding must be provided between the metal containers and the transferring equipment. Grounding is not required when transferring from containers made of non-conductive materials whose volume is 19 litres (5 US gallons) or less. Approved containers that have been designed for the type of liquid to be transferred must always be used.
13. If an internal combustion device such as a generator is used in a building or an enclosed space:
  - the device must be used in such a way that it does not produce hazardous vapours or gases exceeding the limit values indicated in Schedule I of the *Regulation respecting occupational health and safety*;
  - the motor's exhaust gases must be exhausted outdoors;
  - fuels must be transferred when the equipment is not operating and, if possible, when the motor has cooled;
  - an appropriate extinguisher must be located near the equipment when it is operating.
14. Combustible and flammable liquids must be transported according to the rules for transporting hazardous materials.

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## Use of open flames

1. Torches, candles, fireplaces and other open flames must be used in such a way as to avoid endangering the members of the production crew.
2. All supports for open flames must be solidly secured.
3. The producer or his representative must ensure that there is a local ventilation system to exhaust the smoke produced by a fireplace, for example.
4. Flammable or combustible materials must be located at a sufficient distance from open flames. Also, if necessary, flammable materials must be stored in approved containers, and combustible substances must be covered with a fireproof substance.
5. The producer or safety coordinator must establish an emergency response plan.
6. All gas piping used for supplying open flames must be approved and comply with the standards established for fire protection in buildings.
7. The call sheet must contain a note warning the production crew every time that open flames are used, and be accompanied by a copy of this guideline.
8. The necessary personnel (firefighters, medical personnel, special effects coordinator and safety coordinator) must be ready to respond in emergencies and have the appropriate personal protective equipment at their disposal.
9. Those responsible for fire protection must be informed at least 48 hours prior to the use of open flames in the studio or outdoors.

### References

*Flammable and Combustible Liquids Code, NFPA 30-1996.*

*Regulation respecting occupational health and safety, O.C. 885-2001.*

*Dangerous Goods Transportation Act, (Govt. of Canada) R.S.C., c. T-19.01.*

**Note.** – The information contained in this guideline is not exhaustive and does not replace current standards, laws and regulations.