



Fire Safety: Flammable Liquids

Pub No. HS99-140D(12-04)

A 5-Minute Safety Training Aid

Flammable liquids (such as fuels, solvents, and cleaning products) can ignite with explosive force, causing extensive property damage injury, disability or death to anyone nearby. Every year we read in the newspaper about someone being burned or killed as a result of the accidental ignition of flammable liquids.

Flammable liquids must be stored in approved glass, plastic, or metal containers, depending on the quantity and liquid being stored. Flammable liquids measuring from 1 pint to 5 gallons (depending on the liquid's class) can be stored in glass or approved plastic. Metal cans or drums are necessary for amounts exceeding 1 or 5 gallons (depending on the liquid's class). All containers used for the storage of any flammable liquid must be clearly labeled with the name of the material stored inside.

It is very important not to store or use flammable liquids around an ignition source. The vapors, not the liquid itself, ignite. Ignition sources for flammable liquids can be any open flame including a lit cigarette, a lighter, and turning a light switch on or off. Static electricity, which can be caused simply by walking, is another source of ignition.

Make sure all storage drums are grounded whenever you transfer liquids from one container to another. If you keep the storage drum permanently in one place, it should be grounded at all times. Grounding the drum prevents ignition from static electricity. To ground a drum, drive a steel rod into the ground and attach a wire to both the drum and the grounding rod.

Place fire extinguishers near any area where flammable liquids are used or stored. Training in the proper use of a fire extinguisher is necessary.

Always use flammable liquids in a well ventilated area unless respiratory protection is available. Don't use the liquids unless you've been properly trained to do so.

Take the following safety precautions whenever you handle flammable liquids:

- Never fill a container completely; rather, fill the container to 80% capacity. If the container is labeled as one gallon, only put a maximum of one gallon of liquid into it, even if there is extra space left in the container. Leaving a vapor space in the can will allow the liquid to expand when the temperature changes. An explosion could result if the container is completely full.
- When transporting a flammable liquid in a vehicle, place the container in the bed of a pickup truck or the trunk of a car, never in the passenger compartment of the vehicle. The potential release of vapors inside the passenger compartment can put the people inside the vehicle in danger.
- Always store flammable liquid cans in a fireproof cabinet or storage locker when not in use. This will restrict the release of ignitable vapors.
- When using a fire extinguisher, point the nozzle directly at the base of the fire, not the flame.
- Never smoke within 50 feet of a flammable liquid container. Vapors, which are invisible, can travel away from the container and ignite.



Follow these rules of safety when handling flammable liquids and you will reduce your chances of injury or illness.

Remember to practice safety. Don't learn it by accident.

The Texas Department of Insurance,
Division of Workers' Compensation (TDI/DWC)
E-mail resourcecenter@tdi.state.tx.us
or call 1-800-687-7080 for more information.

Safety Violations Hotline
1-800-452-9595
safetyhotline@tdi.state.tx.us