

**Ministry of
District Administration,
Works, Lands &
Agriculture**



CAYMAN ISLANDS
GOVERNMENT

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PETROLEUM INSPECTORATE



Here's how to handle, store, and dispose of gasoline safely.

Gasoline is an important part of our every day lives. It lets us run our cars and trucks, getting the kids to school and the groceries home. It helps us keep our grass and gardens looking good, powering mowers and lawn care equipment. It lets us get away on vacation, running boats, and motorcycles.

But gasoline can be dangerous if not handled or stored properly. Gasoline should only be used for its intended purpose - as a motor fuel - and stored only when absolutely necessary. It should not be used as a solvent, cleaner, barbecue starter or for any other non-engine use.

That's why you should take the following precautions when handling, storing, and disposing of gasoline. There's a lot of life in a gallon of gas - if you handle it safely.

What are some of the standards and regulations regarding storage of flammable liquids such as gasoline?

There are numerous codes, standards, and regulations that cover storage and handling of gasoline within the Cayman Islands. For example, fire codes and regulations restrict the amount of gasoline an individual homeowner can store (usually no more than 25 gallons), in approved containers of less than five gallons each. The use of tanks or storage of quantities larger than 25 gallons is typically regulated. The National Fire Protection Association (NFPA) establishes codes and standards for fire-related safety issues. A partial list of some of these codes, which are adopted locally by reference in the local Fire Code, includes:

- **NFPA 30, Flammable and Combustible Liquids Code**
- **NFPA 30A, Automotive and Marine Service Station Code**
- **NFPA 37, Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines**
- **NFPA 110, Standard for Emergency and Standby Power Systems**



What precautions should be taken when filling a gasoline container?

- **Keep gasoline away from ignition sources like heat, sparks, and flames**
- **Do not smoke**
- **Shut off the vehicle's engine. Disable or turn off any auxiliary sources of ignition.**

- **Only store gasoline in containers with approved labels as required by Law. Never store gasoline in glass or unapproved containers. Portable containers must be placed on the ground, and the nozzle must stay in contact with the container when filling to prevent buildup and discharge of static electricity. Do not fill a container in or on a vehicle, including in car trunks or truck beds. (Placing the container on the ground minimizes any static electricity buildup that could lead to a spark and cause a fire.**
- **Fill the container at a slow rate. This will decrease the chance of static ignition buildup and minimize incidents of spillage or spattering.**
- **Manually control the nozzle valve throughout the filling process. •**
- Keep your face away from the nozzle or container opening. •**
- **Avoid prolonged breathing of gasoline vapors.**
- **Never siphon gasoline by mouth. Do not put gasoline in your mouth - gasoline can be harmful or fatal if swallowed. If someone swallows gasoline, do not induce vomiting. Contact a doctor immediately.**
- **Keep gasoline away from your eyes and skin, because it may cause irritation.**
- **Use gasoline only in open areas that get plenty of fresh air. Never use gasoline to wash your hands.**
- **Remove gasoline soaked clothes immediately.**
- **Fill container no more than 95 percent full to allow for expansion.**
- **Place cap tightly on the container after filling - do not use containers that do not seal properly.**
- **If gasoline spills on the container after filling, make sure that it has evaporated before you place the container in your vehicle.**
- **Report spills to the attendant.**
- **Use gasoline as a motor fuel only.**

When transporting gasoline in a portable container make sure the container is secure from tipping and sliding, never leave in the direct sunlight or in the trunk of a car.

What is the safest way to store and handle gasoline?

Gasoline must be stored in an approved container or tank.

Gasoline containers must also be provided with an approved label as required by local codes. Storage in anything other than an approved container is strictly prohibited by fire prevention codes.

Gasoline is a flammable liquid and should be stored at room temperature, away from potential heat sources such as the sun, a hot water heater, and away from ignition sources. Gasoline vapors are heavier than air and can travel along the floor to ignition sources. Therefore, appliance pilot lights or igniters should be kept more than 50 feet from where gasoline is stored or handled, and elevated. Other precautionary methods include:

- **Do not smoke where gasoline is handled or stored.**
- **Always keep gasoline out of reach from children.**
- **For better ventilation, it is best to handle gasoline outdoors.**
- **Keep gasoline containers tightly closed and handle them gently to avoid spills.**
- **Do not mix even a small amount of gasoline with kerosene or diesel.**
- **Store gasoline in a building separate from the house or place of occupancy, such as a shed or garage.**
- **Put gasoline in a small engine (like a lawnmower) only when the engine and attachments are cool.**
- **Never overfill the gas tank on your vehicle because tanks are sized to allow some space for expansion. For instance, if your automobile manual says that the tank holds 11 gallons but you are able to fill the tank with more than 11 gallons, then you are removing the volume left for expansion. Leaving room is most important in countries with substantial variations in the temperature.**

Storage of gasoline requires developing precautions for spill cleanup. Minor spills should be absorbed with sawdust, paper or rags. Larger spills may be contained and collected. Check with the Petroleum Inspectorate to determine the proper avenues for disposing of spilled gasoline. Place recovered gasoline and cleanup materials in approved, labeled containers for proper disposal. Never dispose of spilled gasoline or cleaning materials on the ground or into your garbage, drains, toilets or drainage wells. If you do it may cause a fire, or seep into the sea or your ground water.

How long can gasoline be safely stored? If the container or gas tank will not be used right away, will be exposed to sunlight, or will be stored at temperatures above 80° F much of the time, add a fuel stabilizer/additive to the gasoline when you first buy it, prior to storage. Fuel stabilizers contain antioxidants, which prevent gum and other compounds from forming in gasoline; biocides, which prevent microbial growth; and corrosion inhibitors, which prevent the formation of rust and corrosion. Fuel stabilizers/additives are available at auto parts stores.

Many manufacturers of engines put restrictions on the amount of time gasoline should be stored before use in engines. Always refer to the manufacturers recommendations. Freshness is improved if the container or gas tank is stored in a cool place and is kept almost 95 percent full. However, leave some headroom for gasoline to expand if it warms up in storage. Without airspace, expansion will force liquid gasoline out of the container or distort the container.

What is the proper way to dispose of gasoline? Never dispose of petroleum products into the ground or into a sewer, street drain, sea, or in the trash. These actions are environmentally harmful and may result in a fire, explosion, or soil, surface or groundwater contamination. Fines and criminal penalties may be associated with improper disposal.

It is not easy to dispose of gasoline that has deteriorated, but there are organizations that will help dispose of gasoline in an environmentally friendly manner. Finding the best option may take some researching. Sources of information are the Petroleum Inspectorate, the Fire Service, Department of Environmental Health, and the Department of Environment.

Whom should I contact for further information about gasoline?

Contact the Petroleum Inspector's Office for more information about portable containers storage or handling requirements, or your local Fire Department. You may also check the website for Material Safety Data Sheets (MSDS) covering the potential fire, health and safety hazards of gasoline, from your fuel supplier or service station dealer.

REGULATIONS FOR SAFE STORAGE OF FUEL

Outside Storage

- Flammable liquids such as gasoline, must be stored at least 15' from buildings or property lines, 25' from ignition sources and combustible materials.
- Combustible liquids such as diesel, must be stored at least 5' from buildings or property lines, and 25' from ignition sources.

Inside Storage

- Where fuels are stored inside, up to 25 gallons may be stored in uninhabited spaces that are constructed of concrete, such as a garage, preferably in an approved storage cabinet.
- Dispensing of flammable and combustible liquids is only permitted from approved safety cans, or via intrinsically safe pumps taking suction through the top of the container.
- The application of pressure to container walls to facilitate dispensing is not permitted.

Portable Containers

- Only approved containers shall be used to store flammable and combustible liquids, and the container should be marked with the product name.
- Approved plastic and metal containers may store up to 5 gallons.
- Metal drums may be used to store up to 100 Imperial Gallons
- Approved metal portable bulk containers can store up to 660 IG but must incorporate an emergency vent to limit internal pressure in the event of a fire.
- Rigid plastic and fibre containers are permitted for diesel under specific circumstances.
- Empty containers should have the bungs immediately secured in place.

Storage Cabinets

- Containers of maximum capacity 5 gallons may be stored in approved flammable liquid storage cabinets, not exceeding a total capacity of 60 gallons and up to 3 cabinets in one area.

Fire Control

- Wherever flammable or combustible liquids are stored, a minimum 10LB ABC fire extinguisher should be located no closer than 20', no farther than 100'
- Extinguishers should be inspected at least quarterly by a professional service technician.
- Smoking, open flames, or other sources of ignition are not permitted within 25' of flammable or combustible materials.
- Waste materials and vegetation should not be permitted to accumulate within 10' of flammable or combustible liquids.

Transportation

- If flammable or combustible liquids are being privately transported the container must be UL listed and properly secured to the vehicle.
- A fire extinguisher minimum 20lb ABC shall be located on any vehicle transporting fuel.
- Approved portable containers up to 10 IG may not be in or on a vehicle whilst being filled. They should be placed upon the ground.