



# City of Poway

## Fire Department

### Fire Prevention Policy and Procedures

## Storage and Use of Flammable and Combustible Liquids

The California Fire Code, Chapter 57 regulates the handling, use and storage of flammable and combustible liquids inside of buildings. Although this handout is not a comprehensive review of the fire code article, it was developed to provide you with some understanding of the minimum safety standards. The inherent dangers of flammable and combustible liquids lie in the vapors of these liquids; they ignite easily and burn ferociously, and have the propensity to flow in any direction. Fire safety controls are based on confinement and ignition control of these vapors.

### DEFINITIONS

**Flammable Liquid:** A liquid having a flash point below 100° F. This class is further categorized as:

- Class I-A liquid having a flash point below 73° F and a boiling point below 100° F
- Class I-B liquid having a flash point below 73° F and a boiling point at or above 100° F
- Class I-C liquid having a flash point at or above 73° F and less than 100° F

**Combustible Liquids:** A liquid having a flash point at or above 100° F. Categorized as;

- Class II and Class III-A and Class III-B

**Flash Point:** The temperature of a liquid where flammable vapors are released.

**Storage:** The keeping of flammable/combustible liquids in closed containers.

**Use:** When flammable/combustible vapors are liberated and open to the atmosphere.

### CALIFORNIA FIRE CODE

**Quantities:** Section 105.6.16-2 Flammable or Combustible Liquids; a permit is required; to store, handle or use Class I liquids in excess of 5 gallons inside a building or in excess of 10 gallons outside of a building.

As the code states, a permit is required from the fire department once you exceed 5-gallons of flammable liquids. Once a permit has been obtained, the quantity of flammable liquid is allowed to increase. The amount of increase is based upon many factors such as occupancy type, building construction and storage methods. Consult the fire department for your allowable amounts.

**Storage:** Section 5704.3.5 General; portable tanks, containers and equipment used or intended to be used for the storage of flammable or combustible liquids shall be of an approved type.

**Container Type:** Section 5704.3.6.1 Containers for Class I Flammable Liquids shall be metal.

**Container Capacity:** Section 5704.3.6.2 Portable containers for Class I Flammable Liquids shall not exceed 5-gallons in capacity.

Plastic containers shall not be used for the storage of Class I or II flammable liquids. Although some poly containers are “listed” for such use, the Poway Fire Department does not approve them for the storage of flammable liquids. Once the shipping container of a flammable liquid has been opened, the remaining liquid must be stored in an approved flammable liquids storage can. An approved safety can, with a 1-hour rating, consists of the following:

1. Fire Department approved, U.L. listed
2. 18 to 22 gauge metal with electric welded seams
3. Trigger activated, spring loaded lid for the pour spout
4. Screened mesh flame arrester in the pour spout
5. Rounded top to prevent puddling of liquid in case of spill
6. 2 to 5-pound pressure relief valve



**Storage Cabinet:** Section 5704.3.4.4 in all occupancies, quantities of flammable liquids and combustible liquids in excess of 10-gallons used for the maintenance purposes and the operation of equipment shall be stored in a flammable liquids storage cabinet.

The construction of the cabinet shall be of an approved type and listed. The doors shall be well fitted, **self-closing** and be equipped with a latch. The cabinet shall be provided with a conspicuous label in red letters on a contrasting background, which reads **FLAMMABLE—KEEP FIRE AWAY**. When ordering a cabinet, they are available **without self-closing** doors; however, this cabinet would **not** be of an approved type.



When flammable liquids are to be used at individual workstations where small quantities of liquids are used for cleaning, wiping and similar operations with paper towels, rags etc., flammable liquids shall be allowed in approved dip-plungers. The dip-plunger shall be made of metal, spring loaded and supplied with a flame arrester.



**Oily Rags:** Section 304.3.1-4 Oily rags and similar materials shall be stored in approved metal containers equipped with tight fitting, self-closing lids.

When paper towels, rags, swabs or similar material are used with flammable liquids, they must be disposed of in approved oily waste cans. These cans must be metal, with self-closing lids. These cans shall be emptied at the end of each working day, to a proper container located outside of the building.

