

Flammable Liquids: Are Yours Protected?

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In the last year I have come across more instances of improper storage of flammable liquids than I can recall for the five previous years despite the good-faith efforts of business owners and their employees. A quick summary follows for you to double-check to see if the basic safety measures are in place at your business.

Flammable liquids come in all types of containers in varying sizes making a general rule of thumb difficult to follow when storing them properly. There are however several quick and simple methods for storing the most commonly seen containers. These include flammable storage cabinets, outdoor storage units and specially built flammable storage rooms. The purpose of this article will be to review best practice for storing flammable liquids when a room has not been built.

In all cases, flammable liquids should be stored away from combustible materials and ignition sources. Quantities should be limited to what is truly needed within operations and with more being ordered from the supplier as needed.

Drum storage is typically the largest type of daily use flammable material storage container I see during property visits. These are often stored on the production floor with no additional protection.

The best practice is to store these drums in a flammable cabinet within the facility or in an outdoor storage unit if the liquid can be transferred and used from a smaller container in the scope of operations. Limiting the quantity outside of a protected area is the first step in preventing fires in uncontrolled areas.

Once the storage location has been decided the drums should be placed on a spill containment device, often built in to the cabinets. These can also be plastic containers used to catch any leaks or overflowing liquid.

Grounding the drum should be done to negate the build-up of static electricity; to do this a grounding cable should be attached to the drum and then attached to a grounding source, something that is in the ground.

A bonding cable should be used when transferring the liquid from a drum to a smaller container. This gives each container the same static potential which eliminates the chance of a static discharge. The points of contact must be metal-to-metal and should be free of rust, dirt or other debris.

Safety cabinets may be the most often seen method of storing flammable materials. They are designed for smaller containers typically used in day-to-day operations, like gasoline cans and paint to 55-gallon drums.

These cabinets serve many purposes, including providing a heat resistant enclosure, a storage solution near points-of-use within the production process and a method to quickly segregate, organize and identify the liquids. The cabinets are typically yellow and should have a visible “Flammable-Keep Fire Away” sticker or painted on label.

Flammable cabinets have venting to allow potentially dangerous vapors to escape the enclosed space. As with the drums the cabinet should be grounded and containers bonded during transfer.

Meeting your needs; cabinets are available in many sizes from as little as four gallons all the way up to 120 gallons.

Know the liquids you are storing. OSHA states that no more than 60 gallons of Class I and II flammable liquids or more than 120 gallons of Class III liquids may be stored in a single cabinet.

A safe place to install the cabinet is important; keep them away from areas where they can be damaged by forklifts or other operations.

Train employees on properly closing the doors on the cabinet when not being used; many newer cabinets have been designed with self-closing/latching doors to prevent leaving it open accidentally. If you are doing business in Idaho, Montana, Oregon, Utah or Washington your flammable cabinets are required to have self-closing style doors per state fire codes.

For more information, please visit [OSHA](#) and the [National Fire Protection Association](#) (NFPA).

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