



# FLAMMABLE LIQUID STORAGE CONTAINERS

## LOSS CONTROL BULLETIN

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Flammable liquid storage containers (also known as safety containers or cans) should be used when transporting, dispensing, and storing smaller quantities (5 gallons or less) of flammable liquids. Using containers that are not designed for this purpose can result in spills, leaks, and the release of highly flammable vapors.

Flammable liquid vapors are generally heavier than air and can travel considerable distances where they could potentially reach a source of ignition and cause an explosion and/or a fire.

Flammable liquids are rated according to their flash and boiling points. Flash point is the minimum temperature at which a liquid gives off a vapor in sufficient quantity to form an ignitable mixture with air. Boiling point is the temperature at which a liquid is vaporized when heated. Liquids are considered flammable when its flash point is below 100 degrees Fahrenheit. Those liquids that have a flash point above 100 degrees Fahrenheit are considered combustible liquids.

The following tables show the NFPA (National Fire Protection Association) classification requirements and examples of each classification.

Flammable Liquids	Flash Point (deg F)	Boiling Point (deg F)	Examples
<b>Class IA</b>	Below 73	Under 100	Ethyl ether, acetaldehyde
<b>Class IB</b>	Below 73	At or above 100	Gasoline, acetone, isopropyl alcohol
<b>Class IC</b>	73-100	Under 100	Styrene, xylene, butyl alcohol

Combustible Liquids	Flash Point (deg F)	Examples
<b>Class II</b>	100-140	Diesel and fuel oils, kerosene, mineral spirits
<b>Class IIIA</b>	140-200	Mineral oil, linseed oil, oil-based paints
<b>Class IIIB</b>	Above 200	Cutting and lubricating oils, ethylene glycol

The manufacturer of the liquid is required to provide a material safety data sheet (MSDS). The flash point and boiling point of the liquid will be identified in the MSDS. NFPA 30 "Flammable and Combustible Liquids Code" requires that safety containers be used when flammable liquids are used in the workplace.

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The flammable liquid storage container is built to withstand more rugged use, minimize spills or leaks, contain flammable vapors, and prevent flashback to the contents of the container. The container should have a spring-loaded, self-closing lid to prevent spills or leaks.

The container is also designed with a pressure relief device that safely vents the container if it becomes heated, preventing a possible rupture or explosion. There also is a flame arrester screen that is designed to prevent a fire from flashing back into the container. Most safety containers are made of galvanized or stainless steel but there are some that are made from a high-density polyethylene. These containers are often referred to as

“non-metallic” safety containers and must be approved for use with flammable liquids.

When a flammable liquid is transferred from its original container into a safety container, the safety container should be labeled as to its contents. Improper labeling of containers is annually one of OSHA’s most cited violations. The labeling requirements should follow your company’s Hazard Communication Program.

NFPA requirements also state that if there are more than 25 gallons of a flammable liquid used, then they must be stored in an approved flammable liquids storage cabinet, even if the liquids are stored in safety containers.

**PREVENTION IS EVERYONE’S BUSINESS. TRUST IN TOMORROW.® CONTACT YOUR AGENT TODAY TO LEARN ABOUT OUR LOSS PREVENTION PROGRAMS.**

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