

# Help prevent fires involving flammable liquids.



Ensure flammable liquids are properly identified and labeled.

According to a 2014 report published by the National Fire Protection Association (NFPA), 11,710 non-residential fires starting with the ignition of flammable or combustible liquid occurred in the U.S. between 2007 and 2011. Those fires accounted for 34 civilian deaths, 458 injuries, and \$374 million in property damage.<sup>1</sup>

## What's the risk to your business?

Flammable and combustible liquids can become ignited easily by any number of hazardous practices in the workplace, including unsuitable storage, incorrect usage, unsafe containers, poor ventilation and improper handling, among others. As a responsible business owner, you need to understand the potential hazards associated with flammable liquids, and take steps to protect your employees, customers and property from harm.

## Some practical advice to help you stay safe.

When using flammable or combustible liquids in the workplace or on your property, consider incorporating the following best practices for the handling of these materials:

- **Limit the amount of flammable/combustible liquids used.** A one-day supply is recommended. Avoid purchasing quantities that will result in the need to store leftover quantities in your facility.
- **Use “UL” listed or “FM” approved safety cans.** The Occupational Safety and Health Administration (OSHA) defines safety cans as “an approved container, of not more than 5 gallons capacity, having a spring-closing lid and spout cover and so designed that it will relieve internal pressure safely when subjected to fire exposure.”
- **Pre-plan usage of flammable liquids.** Use these materials *only* in areas where there are no open flames or other sources of ignition within the potential path of vapor travel. Possible ignition sources could include: appliances with gas pilot lights, floor-mounted gas water heaters, gas stoves, open flame temporary heating units, welding and cutting equipment, mechanical sparks (such as those produced by metal cutoff saws), smoking materials, lighting, hot surfaces, frictional heat, static and electrical sparks, radiant heat and sources of spontaneous ignition that can cause heat-producing chemical reactions.

<sup>1</sup> *Fires Starting with Flammable Gas or Flammable or Combustible Liquid*, John R. Hall, Jr., (2/14), p. 3.

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- **Never fuel portable gas-powered equipment inside a structure.** Equipment such as lawn mowers, construction equipment, or gas-powered cutoff saws should *always* be fueled outdoors — and *only* when the device is cool.
- **Make sure areas where flammable liquids are used have proper ventilation.** This can be accomplished by natural or mechanical ventilation with discharge or exhaust to a safe location *outside* of the building. Sufficient make-up air should be available for the ventilation capacity. Proper ventilation needs to be available in all floor areas or pits where flammable vapors may collect.
- **Use caution in dispensing flammable liquids into containers.** Flammable liquids should not be dispensed into containers unless the nozzle and container are electrically interconnected or bonded to the container during filling operations by means of a bonding wire to prevent electric spark.
- **Ensure electrical wiring and equipment is installed properly.** All electrical wiring and equipment used in the vicinity of flammable liquids should meet the installation requirements of the NFPA and the National Electric Code.
- **Ensure waste is disposed of properly.** Carefully discard waste and residue generated by the use of combustible/flammable liquids (like product-laden rags) to avoid spontaneous combustion. Minimize the use of combustible waste material and store what you have in covered metal receptacles for daily disposal.
- **Make sure approved portable fire extinguishers are handy wherever flammable liquids are used or stored.** These devices should be of the appropriate size, type and number required by the NFPA.
- **Ensure all containers for flammable liquids are properly identified and labeled as to their contents and degree and nature of hazard.** (Refer to OSHA 1910.1200 for more information.)
- **Exercise care in storing flammable/combustible liquids.** Do not store these materials (including stock for sale) near exits, stairways, or areas normally used for the safe egress of people.

Use safety cans of not more than five gallons with a spring-closing lid and spout cover so that internal pressure is safely relieved when subjected to fire exposure.



Providing solutions to help our members manage risk.<sup>SM</sup>



For your risk management and safety needs, contact Nationwide Loss Control Services: 1-866-808-2101 or [LCS@nationwide.com](mailto:LCS@nationwide.com).