

Flammable & Combustible Liquids

Stay Alert So You Don't Get Hurt

Many work activities require the use of flammable and combustible liquids, such as diesel fuel, cleaning supplies, and solvents, including aerosols and paint thinners. Though these materials vary in uses, they have an important similarity – an ability to easily ignite and burn quickly while in certain environments.

A common misconception with flammable and combustible liquids is that the liquid component is what makes these materials flammable. However, it is the vapors emitted from the liquid that readily ignite. This is why it is important to understand the hazards and how to protect yourself while handling or working near flammable and combustible liquids.

Understanding the Hazards

The two most common ways you will identify a liquid as flammable or combustible are by its SDS and labels; but once these are identified, do you know what to do next? The National Fire Protection Association (NFPA), the Occupational Safety and Health Administration (OSHA), and the Environmental Protection Agency (EPA) have each developed standards for the safe handling, storage, and disposal of flammable and combustible liquids. By following these requirements, you can prevent fires, explosions, and injuries.



Tips for Success When Talking to Your Team

Preparation is Key: Keep the topic relevant. Work with your team to review flammable & combustible liquid concerns in your workplace and discuss how they can be avoided.

Stay Positive: Keep the focus on what can be done to create a safe work place, instead of focusing on what has gone wrong in the past.

Share a Story, Ask for a Story: Storytelling is a powerful method to convey information. Stories from your employees make the topic even more relatable.

Storage

Proper storage of flammable and combustible liquid is critical in preventing a vapor release – take a look below for more storage guidelines:

- Carefully read the manufacturer's label on the flammable or combustible liquid container and the SDS before storing or handling
- Only use approved metal safety containers or the original manufacturer container; flammable liquids in excess of 60 gallons must be stored in an approved flammable liquid cabinet
- Keep containers closed when not in use and store away from exits and heat/ignition sources
- Only use flammable liquids in well-ventilated areas or, if required, use a respirator to protect yourself from harmful vapors (contact Risk Management for questions regarding respirator use)

Handling

Safe handling of flammable and combustible liquids is one the best lines of defense from exposure – below are more handling tips:

- Practice good housekeeping and use limited amounts
- Remove ignitable materials from work area
- Smoking and other ignition sources are prohibited in areas where flammable and combustible materials are stored – if an ignition source intersects with a flammable or combustible vapor, then a fire or explosion is imminent

Disposal

A fire or explosion can occur if flammable and combustible liquid wastes are not properly disposed of, which includes items such as oily rags and used oil-dry. Wastes such as these must be disposed in compliance with EPA hazardous waste regulations, including a closed container, labels & signage, and storage limits (contact Risk Management for questions regarding flammable waste)

Learn more: Flammable & Combustible Liquids training at learn.northwestern.edu.

Safety at Home

We all have a flammable liquid of some kind at home, including gasoline and diesel for yard equipment, certain cleaning supplies, and some beauty products. This means it is important that we all understand how to properly store and handle these to prevent fires and injuries – take a look below to help keep you and your loved ones safe:

- Remember to use the manufacturer's original container or an approved metal safety container for storing any flammable or combustible liquid – never use a milk jug or tupperware
- Though many people store flammable or combustible liquids in their basements or garages, it is important to keep in mind that these materials should not be stored near ignition sources, such as a water heater pilot light or a spark from electrical tools
- Always store flammable or combustible liquids in areas that cannot be accessed by children or pets



For Additional Information

Contact Gwen Butler, Director, Environmental Health & Safety, at 847.491.4936.

Do you or your team have a safety story you'd like to share? Contact Risk Management at gwen.butler@northwestern.edu for details.