

# SAFETY AWARENESS

*Brief Topic Safety Refresher Training For Associates*

**2024**

## Working with Flammable and Combustible Liquids

Flammable and combustible liquids are present at many worksites in the plumbing industry. Products such as solvents, thinners, cleaners, and fuels may be highly flammable or combustible. If used or stored improperly, these types of liquids can cause serious injury or death.

To understand the dangers of flammable and combustible liquids, it is important to know that it is the vapor—not the liquid—that burns. If the vapor concentration is within the explosive range and a source of ignition is introduced, an explosion can easily occur.

### **General Safety Rules**

The following work practices must be followed when handling flammable and combustible liquids at the worksite:

- Use Class I flammable liquids (any liquid that can ignite at less than 100° F) only where no open flame or other ignition source is in the path of the vapor.
- All containers must be properly labeled and marked with the complete chemical name.
- All containers must be metal, sealed with a cap or lid, and not damaged or leaking.
- Don't store flammable liquid containers next to exits, aisles, stairways or doors – even for a brief time. Flammable containers may also not be placed where they can interfere with the exit from an area in an emergency situation.
- Dispense flammable and combustible liquids with approved pump or metal self-closing faucets only.
- Do not transfer liquid unless a worker who is trained to stop the transfer in the event of a spill is present.
- When transferring flammable liquids from one container to another, the two containers must be connected by a conducting wire and one container must be grounded.
- Remember that welding, flame cutting and soldering, and other flame-, heat- or spark-producing work is not allowed within 25 feet of liquid use and storage areas.
- Never smoke in storage and handling areas of combustible and flammable liquids, or in a 25-foot radius around these areas.
- Maintain access to fire extinguishers and other emergency response equipment at all times. At least one fire extinguisher must be located within 10 feet of any flammable and/or combustible liquid storage area, and within 50 feet of a flammable liquid use area.

### **Don't Trust Your Nose - Ventilate**

Don't trust your nose to tell you whether an area or container is vapor free. Not all dangerous liquids give off vapors that you can smell. Some vapors are poisonous as well as flammable. Use flammable liquids only where there is plenty of ventilation.

Vapors given off by flammable liquids are usually heavier than air and collect in the lowest area they can reach. Without good ventilation to dissipate them, you have a potential disaster awaiting that one small spark to set it off.

