

safety matters

Education
Toolbox Talks for

From your safety partners at BCG Advisors, Inc.

The Use and Care of Flammable Liquids

Flammable and combustible liquids are frequently used in the educational system in the form of cleaning products and for many classroom activities. Gasoline and many common products including solvents, thinners, cleaners, adhesives, paints, waxes and polishes may be highly flammable or combustible. And 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. For instance, an explosion can occur when a student begins to heat up a beaker that used to contain a flammable liquid and was not cleaned out properly. Although the beaker is empty, it contains explosive vapors. 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 safety precautions must be followed when handling flammable and combustible liquids:

- 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 or building in an emergency situation.
- Do not store flammable or combustible liquids in areas accessible to students, children or any other unauthorized person.
- Dispense flammable and combustible liquids with approved pump or metal self-closing faucets only.
- Do not transfer liquid unless an employee 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.
- Eyewash stations are available in the classroom in case of emergency. Familiarize yourself with the location of these stations.
- 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.

Do not store flammable or combustible liquids in areas accessible to students, children or any other unauthorized person.

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If you have any questions or concerns regarding the safe handling of these liquids, contact your supervisor.