



WHMIS

Quick Facts

Workplace Hazardous Materials Information System



Flammable and Combustible Liquids

Common flammable liquids are:
gasoline, turpentine, acetone.

Common combustible liquids are:
diesel fuel, kerosene.

Flammable liquids give off vapour that can easily be ignited at normal working temperatures.

A **combustible liquid** does not catch fire as easily as a flammable liquid. Under WHMIS, a flammable liquid has a flash point* under 37.8° C (100° F).

A combustible liquid has a flash point, above normal working temperature, from 37.8 to 93.3° C (100 to 200° F).



Hazards of Flammable/Combustible Liquids

Fire or Explosion – A fire/explosion requires fuel (such as flammable vapour), air, and an ignition source*.

Remember there are many hidden ignition sources. Always assume there are ignition sources around you.

The best protection from fire/explosion is to minimize the amount of flammable vapour and mists released into the workplace air in order to prevent the buildup of a flammable atmosphere.

Combustible liquids used in high temperature processes can be as hazardous as flammable liquids.

Other Hazards – Even if you are working well below the lower explosive limit (LEL)*, remember that many of these liquids can also pose health hazards and be reactive.

Working Safely with Flammable Materials

- CONSULT** the Material Safety Data Sheet (MSDS) for information about the hazards and necessary precautions for the materials you are using.
- PREVENT** the release of flammable vapours and mists into the workplace air to minimize fire/explosion risk.
- USE** only in well-ventilated areas.
- KEEP** containers closed.
- USE** the smallest amount of flammable liquid necessary in the work area.

* GLOSSARY OF TERMS *

Flash Point The lowest temperature at which a liquid "burns". At the flash point the liquid gives off enough vapour to form a flammable air-vapour mixture near its surface.

Lower Explosive Limit (LEL) The lowest concentration of vapour in air that will burn or explode upon contact with a source of ignition.

Ignition Source(s) Common ignition sources include sparks, flames, friction, and hot surfaces. "Hidden" sources include static electricity, light switches, and other electrical devices such as power tools.

- CLEAN** up spills immediately.
- USE** non-sparking ventilation systems and equipment.
- GROUND** all metal drums, transfer vessels, hoses and piping to prevent buildup of static charge. Ground clips must contact bare metal.
- USE** only containers and dispensing equipment (faucet, pump, drip can) that are approved for use with flammable liquids.
- PRACTICE** good housekeeping by keeping areas clear of materials that can burn.
- REPORT** leaks, spills and ventilation failures to your supervisor immediately.
- UNDERSTAND** and **PRACTICE** emergency procedures so that you know what to do if it becomes necessary.
- DO NOT HEAT** containers or distribution systems containing flammable or combustible liquids.
- DO NOT USE** flammable or combustible liquids for anything other than their intended uses.

In the event of an emergency...
Warn people in the area and move to a safe location to call for emergency help.

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