

## **Worker Safety Fire Protection and Prevention Plan**

### **In case of a fire, evacuate the building and call 911**

(if using our internal office phones, dial 9 then 911)

When it is safely possible, use the centrally located fire extinguisher to extinguish the fire.  
Do not risk personal injury.

### **Fire Extinguishers and General Fire Prevention Practices**

Fire extinguishers shall be provided so that the travel distance from any CDI work area to the nearest extinguisher is less than 100 feet (30.5 meters).

When 5 gallons (19 liters) or more of a flammable or combustible liquid is being used, an extinguisher must be within 50 feet (15.2 meters).

- Extinguishers must:
  - be maintained in a fully charged and operable condition;
  - be visually inspected each month; and
  - undergo a maintenance check each year.
- The area in front of extinguishers must be kept clear.
- Post “Exit” signs over exiting doors (i.e., construction trailers, and post “Fire Extinguisher” signs over/at extinguisher locations.
- Combustible materials stored outside should be at least 10 feet (3 meters) from any building.
- Solvent waste and oily rags must be kept in a fire resistant, covered container until removed from the site.
- Keep areas neat. Housekeeping is important.

### **Dispensing of Flammable/Combustible Liquids**

This includes spray paint and spray glue.

- Areas in which flammable or combustible liquids are dispensed in quantities greater than 5 gallons (22.7 liters) (shall be separated from other operations by at least 25 feet (7.6 meters).
- Drainage away from storm drains or surface waters or other means of containment shall be provided to control spills.
- Adequate natural or mechanical ventilation shall be provided to maintain the concentration of flammable vapor at or below 10 percent of the lower flammable limit.
- Dispensing of flammable liquids from one container to another shall be done only when containers are electrically interconnected (bonded).
- Dispensing flammable or combustible liquids by means of air pressure on the container or portable tanks is prohibited.
- Dispensing devices and nozzles for flammable liquids shall be of an approved type.

## Fire Triangle:

To understand how fire extinguishers work, you need to understand a little about fire. Fire is a very rapid chemical reaction between oxygen and a combustible material, which results in the release of heat, light, flames, and smoke.

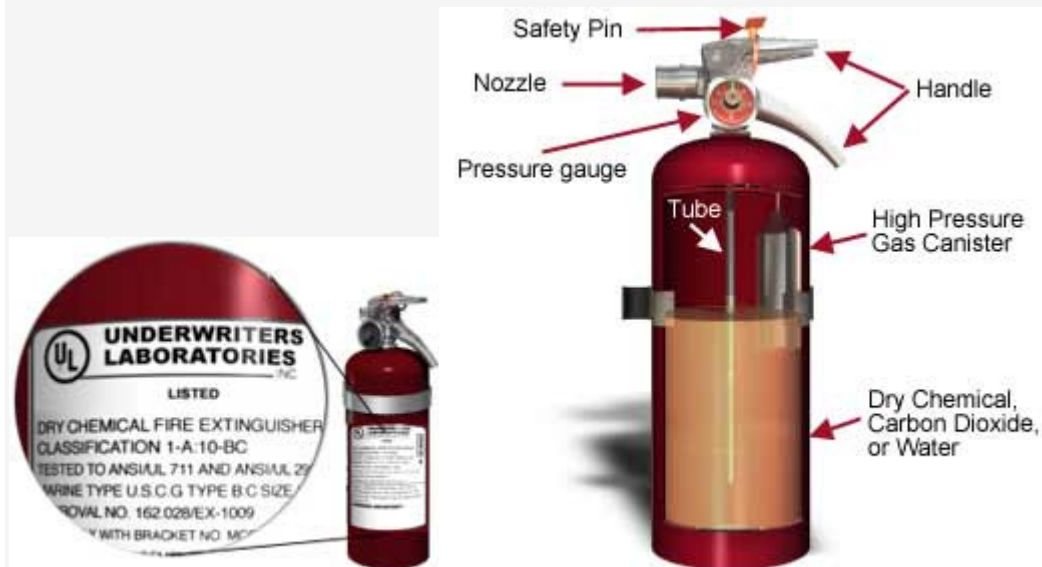


For fire to exist, the following four elements must be present at the same time:

- Enough oxygen to sustain combustion.
- Enough heat to raise the material to its ignition temperature.
- Some sort of fuel or combustible material.
- The chemical reaction that is fire.

## How a Fire Extinguisher Works:

Portable fire extinguishers apply an extinguishing agent that will either cool burning fuel, displace or remove oxygen, or stop the chemical reaction so a fire cannot continue to burn. When the handle of an extinguisher is compressed, agent is expelled out the nozzle.



## Multi-purpose - Dry Chemical Extinguishers



Dry chemical extinguishers put out fires by coating the fuel with a thin layer of fire retardant powder, separating the fuel from the oxygen. The powder also works to interrupt the chemical reaction, which makes these extinguishers extremely effective.

Dry chemical extinguishers are usually rated for class B and C fires and may be marked multiple purpose for use in A, B, and C fires. They contain an extinguishing agent and use a compressed, non-flammable gas as a propellant.

ABC fire extinguishers are red in color, and range in size from five pounds to 20 pounds.

Dry Chemical extinguishers will have a label indicating they may be used on class A, B, and/or C fires.



### Locations:

These extinguishers will be found in a variety of locations including: public hallways, laboratories, mechanical rooms, break rooms, chemical storage areas, offices, commercial vehicles, and other areas with flammable liquids.