

Background

What is fire?

Fire is a common chemical reaction that can be useful and equally hazardous. For fire to occur, three elements have to meet (see the triangle below):

- A fuel source (combustible material)
- Heat (to reach ignition temperature)
- Oxygen (to sustain combustion)

Fire is then extinguish by removing anyone of the three elements.

How is it classified?

Fires are classified by the type of fuel that it burns, i.e. paper, grease, electrical, etc.

Understanding the type of fire that you are dealing with will allow you to use the correct extinguisher to extinguish it efficiently.



Extinguishers

Using the correct extinguisher:

Using a fire extinguisher that matches the classification of the fire is crucial, because you may not be able to stop or even control the fire otherwise.

Types of extinguishers:

- **Type A:** flammable solids i.e. wood, paper, cloth, most plastics
- **Type B:** flammable liquids and gases i.e. oil, grease, tar, gasoline
- **Type C:** Electrical equipment i.e. energized electrical equipment, Computers, TV, Radio
- **Type D:** Flammable metals i.e. magnesium, aluminum, potassium, titanium

Keep in mind, a lot of modern extinguishers can cater to more than one classification i.e. ABC extinguishers.

Tip:

Remember to always follow the instructions displayed on the extinguisher; extinguishers usually have different maximum effective ranges.

Fire Safety

Fire safety is crucial is construction sites. Fires are a destructive force than can grow quickly and cause millions of dollars in property damage and even worse, lost lives.

- Always dispose of combustible materials properly
- Job site housekeeping is essential for preventing fire hazards
- Do not use any power tools or equipment with frayed or damaged wires
- Have all electrical tools and equipment connected to a GFCI outlet
- Always have a fire guard and extinguisher ready near any kind of hot works
- If sparks are falling between multiple levels, a fire guard is also required on the next elevation
- Keep combustible materials away from hot works
- Fuel oil containers must be properly labeled and stored
- Acetylene gas and oxygen must be kept separated by 5' tall half-hour rated barrier