SDRMA

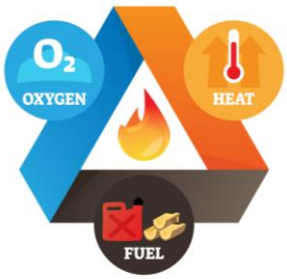
SAFETY talk

Fire Extinguisher Safety

While other trainings focus on fire prevention, this safety talk discusses how to select, use, store, and maintain fire extinguishers.

Before learning the basics of fire extinguisher safety, you need to understand how a fire burns and the different classes of fire.

FUEL + OXYGEN + HEAT = FIRE



A fire needs to maintain a balance of three things to sustain itself: fuel, oxygen, and heat. Control any of these elements and the fire will be extinguished. Imagine if your flammable liquid cabinet was on fire. Would a water-based (Class A) fire extinguisher work?

No, it would make the fire worse for several reasons. Although it appears to eliminate oxygen, water-based extinguishers work by quickly absorbing heat which stops the exothermic reaction extinguishing the fire, but this only applies to ordinary combustibles involving wood, paper, cloth, rubber and plastics.

Flammable liquid fires generate higher temperatures boiling the water instead of suppressing the heat. Additionally, water is denser than many flammable liquids sinking below the liquid fuel where it evaporates and carries the flammable liquid into the air causing further spread and intensifying the fire. If the fire is hot enough, water can quickly vaporize causing a steam explosion.

CLASSES OF FIRE

Before grabbing a fire extinguisher, identify the type of materials fueling the fire, for example:

Wood, paper cloth, rubber, and many plastics

Gasoline, petroleum, greases, tars, oils, Oil-based paints, solvents, alcohols, propane, butane

Computers, servers, motors, transformers, appliances

Magnesium, titanium, zirconium, lithium, potassium

Animal & vegetable fats

For each type of fire, there is a corresponding extinguisher. Most fire extinguishers can be used on multiple types of fire and are labeled A-B-C. Always use the appropriate type of extinguisher for the fuel involved in the fire.

Fire Extinguisher Safety

WHEN TO USE A FIRE EXTINGUISHER

After identifying the type of fire involved, don't reach for the fire extinguisher just yet. First, notify others of the workplace fire. Sound the alarm, call 911, and assess the situation.

Only use a fire extinguisher if you have a clear escape route, **and** the fire is small. Fire extinguishers are designed for use on small fires. If a fire is too large or spreading rapidly, it's important to evacuate immediate.

REMEMBER 'PASS'

When using a fire extinguisher remember the acronym **PASS – Pull, Aim, Squeeze, Sweep**

PULL the pin at the top of the fire extinguisher. This will break the tamper seal and allow you to discharge the extinguisher.

AIM the nozzle or hose at the base of the fire. Do not aim at the flames; instead, direct the extinguishing agent at the source of the fire.

SQUEEZE the handle to discharge the extinguishing agent. Release the handle to stop the discharge. Use short bursts rather than a continuous stream to conserve the extinguishing agent.

SWEEP the nozzle or hose from side to side while continuing to aim at the base of the fire. This sweeping motion helps to ensure that the entire area of the fire is covered.

OTHER TIPS:

- ✓ Stand at a safe distance from the fire, but close enough to effectively aim and control the extinguisher
- ✓ Even if you think you've extinguished the fire, keep an eye on the area in case it reignites
- ✓ If you're unable to control the fire, if it's spreading rapidly, or if you're uncertain, evacuate the area immediately and call emergency services.
- ✓ Ensure that fire extinguishers are regularly inspected and maintained to ensure they are in working order.

This *Safety Talk* provides awareness level training on fire extinguisher safety.
If this information is unclear or if you have any additional questions, please talk to your supervisor.