



# Fire Fighting at Work

## Fire Extinguishers

### Type of Extinguishers

**WATER AND FOAM** fire extinguishers extinguish the fire by taking away the heat element of the fire triangle. Foam agents also separate the oxygen element from the other elements. Water extinguishers are for Class A fires only - they should not be used on Class B or C fires.

**FOAM** extinguishers can be used on Class A & B fires only. They are not for use on Class C fires due to the shock hazard.

**CARBON DIOXIDE** fire extinguishers extinguish the fire by taking away the oxygen element of the fire triangle and also by removing the heat with a very cold discharge. Carbon dioxide can be used on Class B & C fires. They are usually ineffective on Class A fires.

**WET CHEMICAL** is a new agent that extinguishes the fire by removing the heat of the fire triangle and prevents reigniting by creating a barrier between the oxygen and fuel elements. Wet chemical (**Class K**) extinguishers were developed for modern, high efficiency deep fat fryers in commercial cooking operations. Some may also be used on Class A fires in commercial kitchens.

### HALOGENATED OR CLEAN AGENT

extinguishers include the halon agents as well as the newer and less ozone depleting halocarbon agents. They extinguish the fire by interrupting the chemical reaction of the fire triangle. Clean agent extinguishers are primarily for Class B & C fires. Some larger clean agent extinguishers can be used on Class A, B and C fires.

**DRY POWDER** extinguishers are similar to dry chemical except that they extinguish the fire by separating the fuel from the oxygen element or by removing the heat element of the fire triangle. However, dry powder extinguishers are for Class D or combustible metal fires, only. They are ineffective on all other classes of fires.



Class A fires are fires in ordinary combustibles such as wood, paper, cloth, trash, and plastics..

Water and Foam extinguishers  
Water mist extinguishers  
Cartridge Operated Dry Chemical  
Wet chemical or Class K extinguishers (some)  
Halogenated or Clean Agent extinguishers (some)  
Water mist extinguishers



Class B fires are fires in flammable liquids such as gasoline, petroleum oil and paint, and also include flammable gases such as propane and butane. *Class B fires do not include fires involving cooking oils and grease.*

Foam extinguishers  
Carbon dioxide fire extinguishers  
Halogenated or Clean Agent extinguishers  
Cartridge Operated Dry Chemical  
Ordinary dry chemical



Class C fires are fires involving energized electrical equipment such as motors, transformers, and appliances. Remove the power and the Class C fire becomes one of the other classes of fire.

Carbon dioxide fire extinguishers  
Water mist extinguishers  
Halogenated or Clean Agent extinguishers  
Cartridge Operated Dry Chemical  
Water mist extinguishers  
Ordinary dry chemical



Class D fires are fires in combustible metals such as potassium, sodium, aluminum and magnesium.

Dry Powder extinguishers



Class K fires are fires in cooking oils and greases such as animal fats and vegetable fats.

Wet chemical or Class K extinguishers



### The Three "A"s

In case of fire, your actions must follow this order:

**ACTIVATE** the building alarm system or notify the fire department by calling 911. Or, have someone else do this for you.

**ASSIST** any persons in immediate danger, or those incapable on their own, to exit the building, without risk to yourself.

**ATTEMPT** to extinguish the fire, only after completing ACTIVATE & ASSIST.

### Q & A

1. What type of fire extinguishers are in your work area?

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2. Where are they located?

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### TRUE OR FALSE

1. You can use a halogenated or clean agent extinguisher on A, B, and C fires. T or F
2. Class B fires include flammable liquids like gasoline. T or F
3. Class K fire are fires in cooking oils and have a special wet chemical or Class D extinguisher. T or F
4. When using a fire extinguisher you should aim at the base of the fire.
5. When you are indoubt about being able to fight the fire you should man up and be persistant.

ANSWERS: 1. T, 2. T, 3. F, 4. T, 5. F



### USING A FIRE EXTINGUISHER

Most fire extinguishers operate using the following P.A.S.S. technique:

**PULL**... Pull the pin. This will also break the tamper seal.

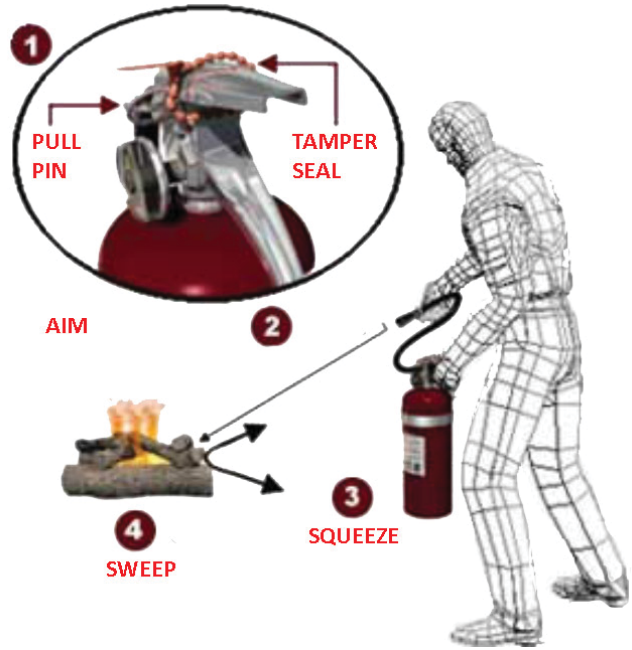
**AIM**... Aim low, pointing the extinguisher nozzle (or its horn or hose) at the base of the fire.

*NOTE: Do not touch the plastic discharge horn on CO2 extinguishers, it gets very cold and may damage skin.*

**SQUEEZE**... Squeeze the handle to release the extinguishing agent.

**SWEEP**... Sweep from side to side at the base of the fire until it appears to be out. Watch the area. If the fire re-ignites, repeat steps 2 - 4.

**If you have the slightest doubt about your ability to fight a fire....EVACUATE IMMEDIATELY!**



## SAFETY TRAINING SIGN-IN

Company Name: \_\_\_\_\_ Date: \_\_\_\_\_

Subject: Fire Extinguishers

The following employees participated in this training.

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