Portable Fire Extinguishers

University at Albany
Office of Environmental Health & Safety
What to do if you discover a fire…

- Rescue anyone in immediate danger
- Activate the alarm (or have someone call for help)
- Contain the fire
- Extinguish flames you can see
Parts of a Fire Extinguisher

- Handle/Lever
- Locking Pin
- Pressure Gauge
- Discharge Nozzle or Horn
- Label
Class of Fires/Extinguisher

- Knowing what type of material is burning is important to select the correct extinguisher
- Three basic classes of fires
- Two Specialized classes of fires
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<th>Description</th>
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Class A Fires- Common Combustibles

• Identified by symbol shown below
• Typically consists of:
  • Wood, Paper
  • Cloth, Rubber
  • Many Plastics
Class B Fires- Flammable Liquids

• Typically consists of:
  • Liquids, Oils
  • Greases, Gases
  • Tars, Oil based paint
• Identified by symbol shown below
Class C Fires- Energized Electrical Equipment

- Fires with Energized Electrical Equipment
Class D- Flammable Metal Fires

• May Include:
  – Magnesium, Titanium
  – Sodium, Lithium
  – Potassium, Zirconium
Class K- Cooking Fires

• Fires in cooking appliances that involve combustible cooking media (vegetable or animal oils and fats)
Types of Fire Extinguishers

- TYPE A – usually water or dry chemical
- TYPE B – usually carbon dioxide or dry chemical (ammonium phosphate)
- TYPE C – usually carbon dioxide or dry chemical (ammonium phosphate)
- TYPE D – usually sodium chloride
- TYPE K – specialized potassium bicarbonate or potassium acetate
- On campus, can find Type A, B, C extinguishers (usually dry chemical) or Type B, C extinguishers (carbon dioxide) or Type A extinguishers (water) or Type D on the third floor of Chemistry only or Type K in the kitchens
How to use a PFE:

- P
- A
- S
- S
Pull the Pin
Aim the nozzle
Squeeze the handle
Sweep the base
How does an extinguisher work?

- By removing one triangle of the tetrahedron, we can interrupt the chemical chain reaction and end the fire event.
When should you use an extinguisher?

- First, activate fire alarm to evacuate the building, and to notify fire department
- Select the proper extinguisher
- Use only if you know how, and are confident about using the extinguisher
- Use only if fire is small and contained
- Always keep a clear exit to your back
- Stay low to avoid breathing in smoke
What if I am not sure...

- When in Doubt:
- Get Out!
- Activate the alarm system on your way out.
Thank You for your time!

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