

# Workplace Health and Safety

## Preventative fire safety in office and administrative areas

Created by Stabstelle Sicherheit (Health and Safety Office) Nov. 2010  
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**"The fact that decades may pass in many buildings with no fires does not prove there is no danger, but instead represents a stroke of luck, the end of which must be expected at any time!"**  
**!"**

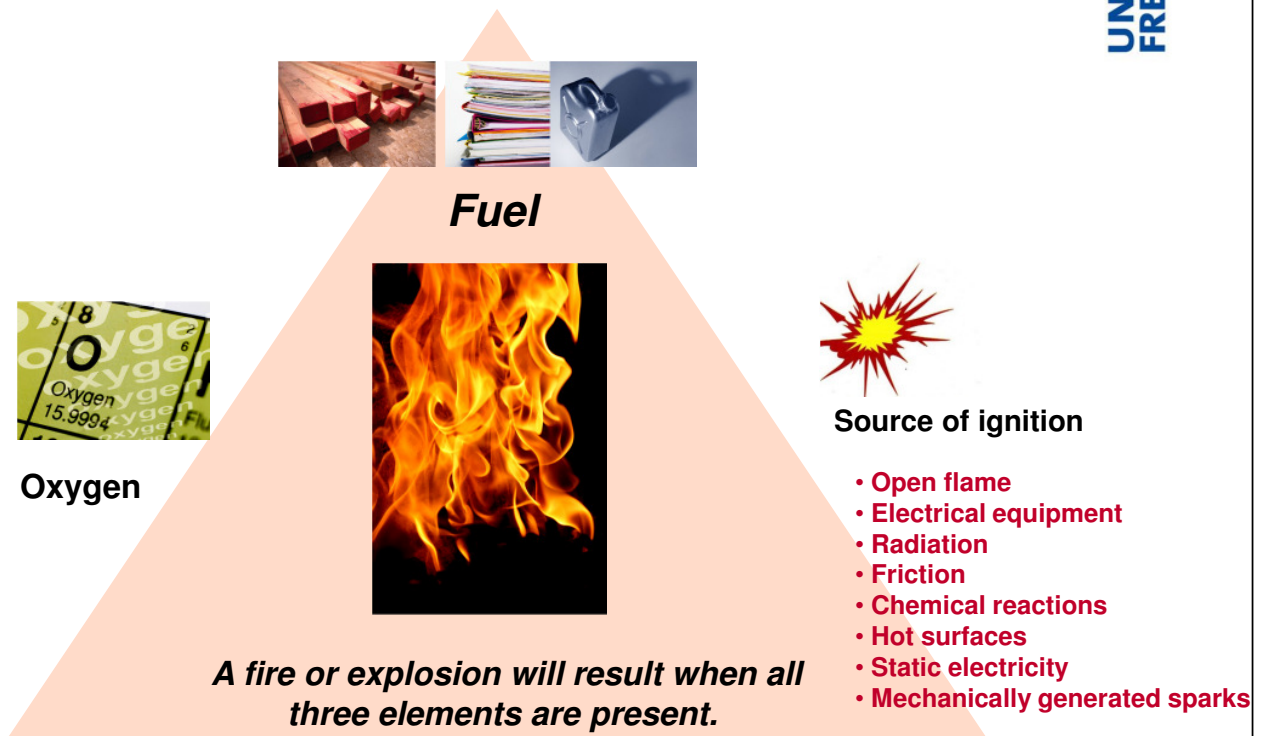
**Supreme Administrative Court, 10A 363/86 dated 1987-12-11**

# Requirement for a fire

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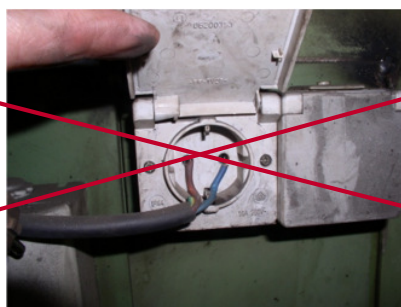
## Electrical equipment can cause fires

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- ▶ Visually inspect before using, everytime!
- ▶ Never use defective electrical appliances, extension cords, power strips etc.
- ▶ Immediately mark and discard defective electrical equipment, cables, etc., or hand in for repair

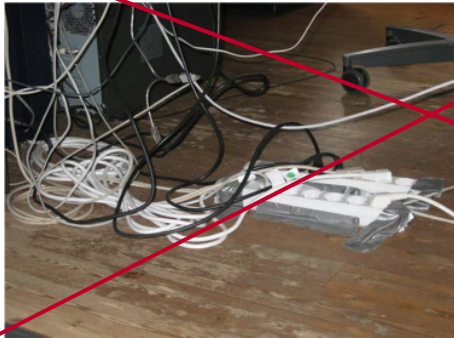


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# Electrical equipment can cause fires

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- Do not overload the power supply
- No stand-by mode
- No cable spaghetti



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## Extra Attention Must Be Given to Coffee machines, kettles etc.

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- Test portable electrical appliances such as coffee machines, kettles, microwaves, etc., regularly - even privately owned devices must be tested!



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# A fire is always accompanied by smoke

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**The smoke produced by a fire is often underestimated. A building can be completely filled within 2-3 minutes.**

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## Measures for fire prevention / preventative management

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### Structural fire protection:

- Fire zones
- Escape and rescue routes
- Emergency exits



### Operational / Organizational fire protection :

- Reduction of fire loads
- Training of employees regarding:
  - Escape and rescue routes
  - Available fire fighting equipment(Fire extinguishers, fire blankets, safety showers, etc.)
- Practical fire fighting exercises



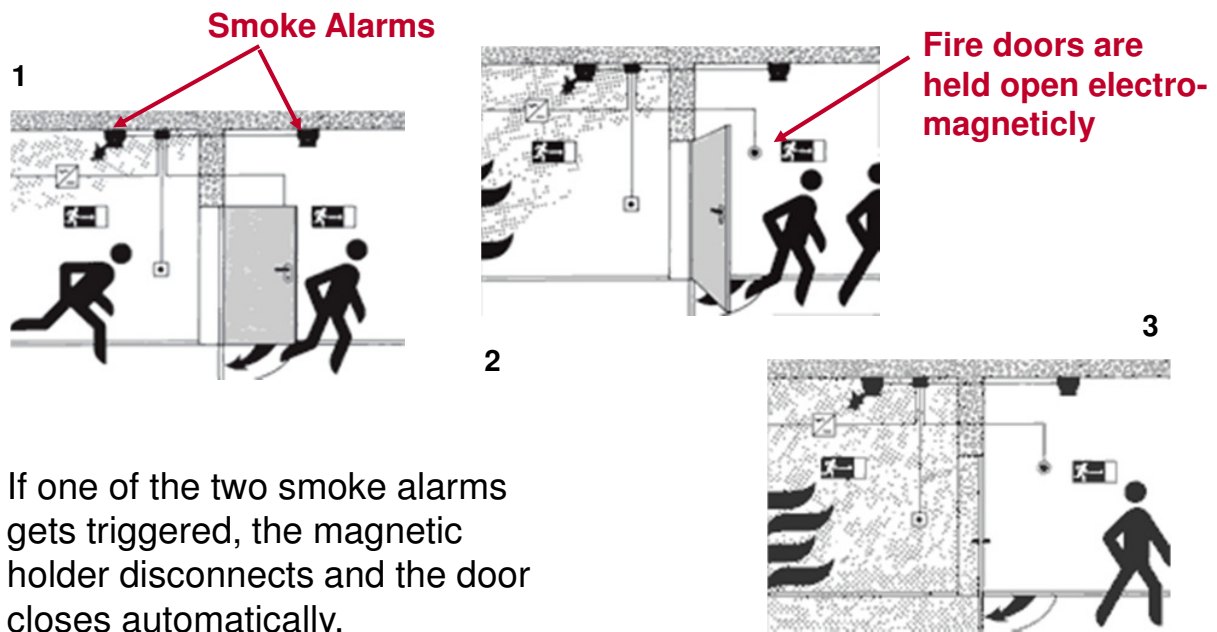
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# Structural fire protection: fire zones and self-closing fire doors

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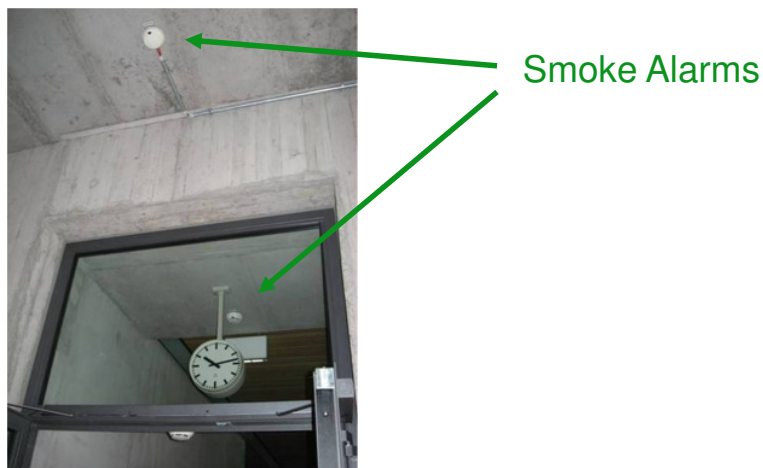
## Self Closing Fire Doors



## Self Closing Fire Doors

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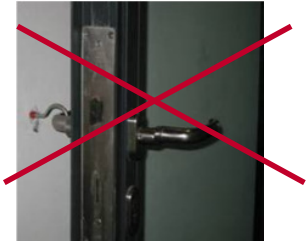
Self Closing fire doors controlled by smoke alarms may remain open during the day - the doors will close automatically when smoke is detected.



# Simple Fire Doors

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Simple fire doors without smoke alarms must be kept closed at all times to provide protection in case of fire.



Holding these doors open is permitted only for the duration of an action that requires it, e.g., to transport something through. They must then be re-closed immediately.

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# Structural fire protection: Escape and rescue routes

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The escape and rescue plan can usually be found near building entryways.



Learn the locations of all available emergency exits and escape routes!

In case of fire, you must know how to leave the building quickly.

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# Structural fire protection: Escape and rescue routes

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**Follow the escape and rescue route signs!**



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# Structural Fire Safety: Emergency Exits

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**Emergency exits are equipped with panic locks, i.e., they can be opened from the inside at any time without a key!**

Emergency exits must always be accessible and always be openable from the inside!



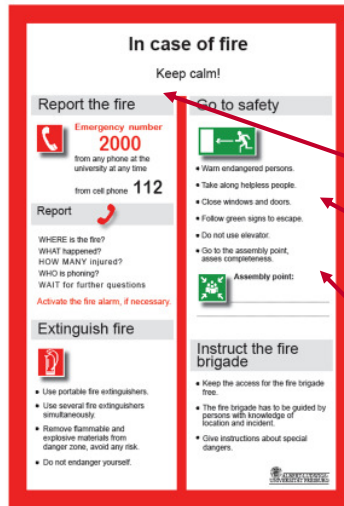
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# Organizational fire protection: Fire regulations

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The fire safety regulations of the University of Freiburg contain a lot of information about fires.

Don't wait to study them!



Report the fire

Go to safety

Report to the building's emergency assembly point

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# Organizational Fire Protection: Emergency Number

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The fire department can be reached from every university telephone using this number:

**2000**

This number may also be used to call an ambulance.

Alternative emergency numbers: 0-112 for fire control center 0-19222 for EMS control center.

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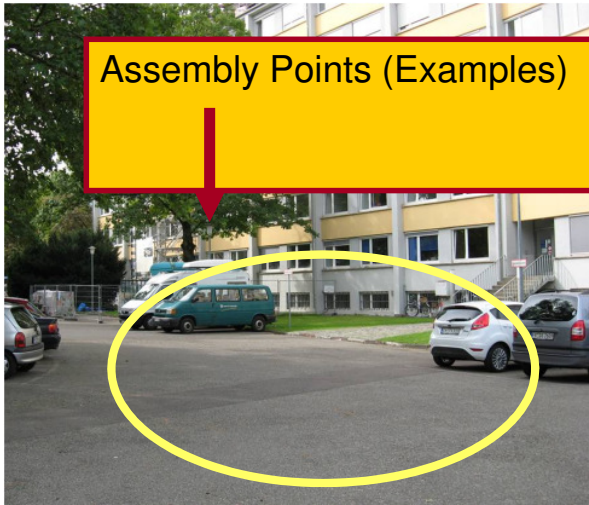


# Organizational Fire Protection: Assembly Points (Examples)

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Go directly to the assembly point and stay there until the fire department certifies the building is safe!

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# Organizational Fire Protection Reduction of Fire Load

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# Organizational Fire Protection

## No open flames in the office

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**Burning candles  
are not allowed!**

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# Organizational Fire Protection

## Conduct In Case of Fire

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Leave the building immediately upon discovery of fire and/or at the sound of an alarm

Warn your colleagues, take unfamiliar persons or those needing help with you.

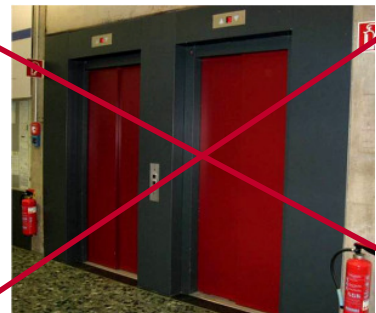
Do not use elevators to leave the building!

Never use smoke filled escape routes – **High Danger!**

Proceed immediately to the assembly point!

Gather as a work or department group in order to determine if everyone has escaped.

Remain there until the fire department gives further instructions.



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# Organizational Fire Protection Conduct In Case of Fire

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**For buildings with fire alarm, public address  
and/or other audible warning signal systems:**

**Never ignore an  
alarm!**

**There is always a first time!**

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## Organizational Fire Protection: Fire Extinguisher

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### **Inform yourself!**

- Where are the fire extinguishers?
- What kind of fire extinguishers are they?
- Which fire extinguisher should you use first?



**Dry Powder Extinguisher   CO2 Extinguisher**



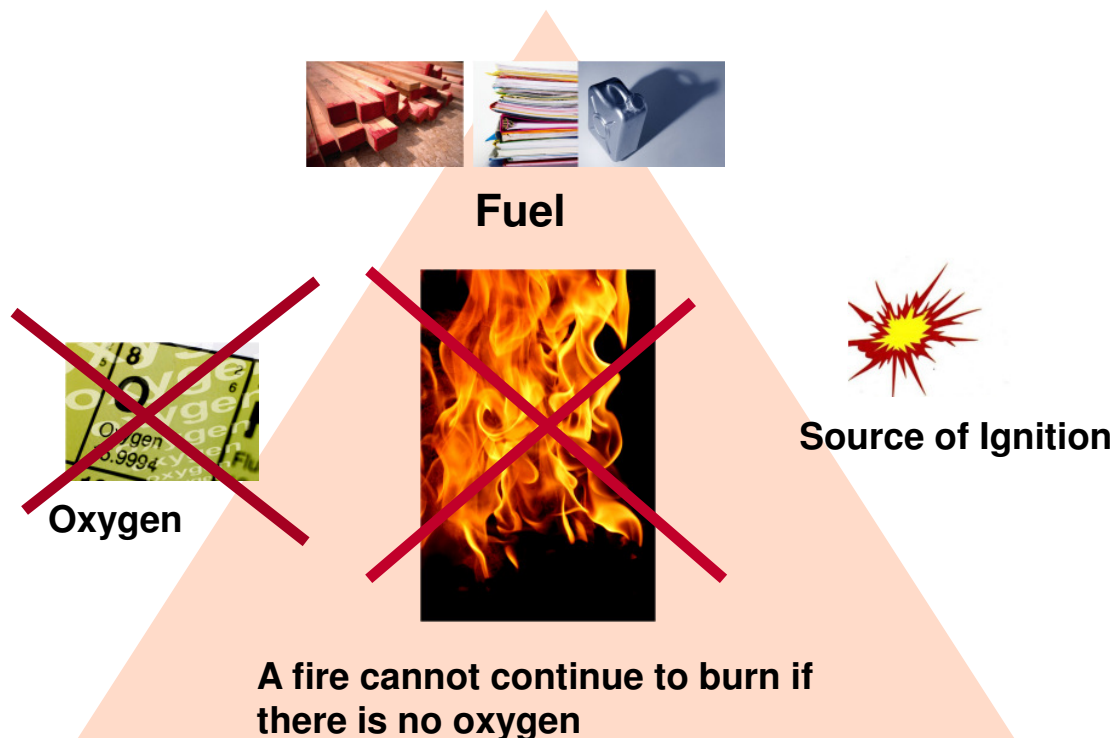
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# Requirements to Stop a Fire

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# Types of Fire

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**Combustible solids (flame and embers) e.g., wood, paper, textiles**



**Combustible solids (flame and embers) e.g., wood, paper, textiles**



**Combustible metals, e.g., Al, Mg, Li, Na, K**



**Combustible fluids (flame producer) e.g., gasoline/petrol/benzine, grease, oil, alcohol**



**Grease fires (vegetable & animal oils and fats) in deep fat frying and baking equipment or in other kitchen facilities**



**Combustible gases (flame producer) e.g., methane, propane**

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## Carbon Dioxide CO<sub>2</sub>

CO<sub>2</sub> extinguishers are pressurized units, i.e. they are under constant internal pressure with the combined pressurizing gas and extinguishing agent held in one container. They are easy to use. The CO<sub>2</sub> evaporates completely.



## Dry Powder

Dry powder extinguishers are cartridge extinguishers. The extinguishing agent is not under pressure in the extinguisher. A compressed gas is stored in a separate, internal steel cylinder or cartridge. The extinguisher is pressurized only when used.



- Foam
- Water
- Metal Fire

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# Fire fighting using a dry powder extinguisher

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Dry powder extinguishers are of the ABC type. They are recommended for extinguishing fires involving solid, liquid or gaseous combustible materials.



Remove safety pin



Löschler aufladen



Löschpistole betätigen

Look at your fire extinguishers in your work area.

Method of activation is described on the extinguisher. There are various models of dry powder extinguishers.

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# Fire fighting using a CO<sub>2</sub> extinguisher

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CO<sub>2</sub> extinguishers are recommended for extinguishing fires involving Class B liquids and for electrical fires



Remove safety pin



Operate extinguisher

Never return a used extinguisher to its regular place!

Please notify Stabstelle Sicherheit (Health and Safety Office: tel. 203-9031). It arranges to refill fire extinguishers that have been used.

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## Fire extinguishers must always be instantly accessible!

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# Practical fire fighting training is offered by Stabstelle Sicherheit

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The Stabstelle Sicherheit (Health and Safety Office) provides a fire safety seminar and subsequent fire fighting exercises for employees of the university on the last Thursday of every month.

For more information and registration, go to:

<http://www.sicherheit.uni-freiburg.de/termine/loschuebung2010>

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(On the corner of Stefan-Meier-Str. / Albertstr.)

More information can be found on our homepage: <http://www.sicherheit.uni-freiburg.de>  
or under "Wie geht das?"

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