



Advice for Newcomers

Fire



Illustrations William Augel, Prévention Infos, mai 2015, n°39



dépasser les frontières



CentraleSupélec

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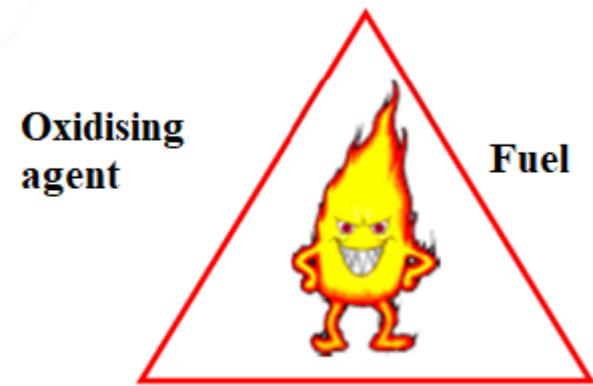
General informations about fire : nature

How does a fire start?

Combustion requires the following three elements:

- fuel (flammable liquid, paper, oil-soaked rag, etc.),
- an oxidising agent (generally oxygen from the air),
- activation energy (electrical short circuit, cigarette end, hot tool, spark, naked flame, etc.).

Together these form what is known as the fire triangle.
If one of these three elements is missing or disappears,
the fire cannot continue to burn.

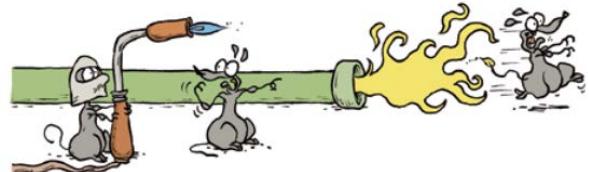
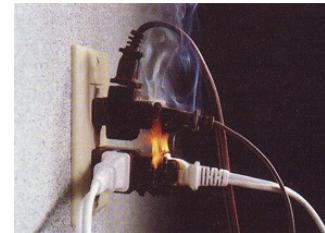


Activation energy

General informations about fire

: causes

- Electrical equipments
- Heating systems
- Hot work
- Smokers negligence
- Storage of flammable products and combustible materials
- Natural causes : lightning



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Prevention/Good Practices

- **Prevention** : reduce and, if it's possible, suppress the likelihood of fire.
- **Protection** : limit and slow down the start and spread of fires.



Prevention/Good Practices

- Preventing fire: Follow the rules!
- Warning : Manual switching of alarm in case of fire start or smoke start
- Knowing fire escape routes, clear emergency exits, safety instructions, evacuation plan and fire assembly points before a fire starts will greatly enhance the ability to react calmly.





Prevention/Good Practices

- Limiting fire spreading : fire doors, opening smoke vents (manual), fire training (extinguishing equipment)

**IT IS SAID THAT TO EXTINGUISH AN
INCIPIENT DRY FIRE, YOU NEED:**

*a glass in the first
minute...*



*a bucket in the second
minute*



*a tank after three
minutes*



after...





Prevention/Good Practices

- Help the emergency services to act as safely and effectively as possible.

**CONSIGNES SECURITE / SAFETY INSTRUCTIONS
ÉCOLE CENTRALESUPELEC Paris-Saclay GIF s/ YVETTE**

**USEFUL NUMBERS /
NUMÉROS UTILES :**
(opening hours) / (heures ouvertes)

RECEPTION /ACCUEIL
Eiffel et Bouygues building / standard:
01 75 31 60 00

Breguet & GeePs / standard :
01 69 85 12 12

**Medical office /
Infirmérie:**
Bouygues – H 033
01 75 31 63 40

DPIET
(Technical service / travaux-logistique)
Bouygues – SD 017
01 75 31 66 66

Occupational safety / Prévention
Bouygues – RDC, H 031
01 75 31 60 93

Short numbers from the internal phones/
M's courts depuis les postes fixes en interne

ALERT / ALERTEZ
In case of... / En cas de ...

fire or accident- dizzy spell, heart attack- or intrusion, attack /
incendie ou accident – malaise, défaillance cardiaque –
ou intrusion, acte malveillant :

01 75 31 77 77 / #77 77 (Bréguet)
(Security Post / Eiffel building – southern entrance)
(PC Sécurité – Eiffel entrée sud)

or emergency services: 112 / 18-pompiers / 15- SAMU / 17- police

secours externes:

fire / incendie :

operate nearest fire-alarm unit / actionner un boîtier incendie

use nearest extinguisher if possible and safe /
si vous pouvez les utiliser : extincteur le plus proche

Sound alarm / Alarme incendie

Evacuate calmly and proceed to the nearest assembly point outside /
Evacuez calmement vers les issues de secours et restez au point de rassemblement le plus proche
(à défaut, esplanades des entrées Bréguet, entrées nord et sud Eiffel & Bouygues)

Operate unlocking-units if necessary /
Actionner un boîtier de déverrouillage des portes si nécessaire

*Follow the safety instructions you will be given by the security officers /
Suivez les consignes données par les équipiers du PC sécurité
ou les chargés d'évacuation de l'école*





Extinguishing equipment : fire classes



Solid materials forming embers



Liquids and liquefiable solids



Gases



Metals



Plant or animal oils and fats



Extinguishing equipment

Action on:

Fuel:

- Stopping gas emission
- Lowering temperature

Oxidising agent:

- Smother
- Removing oxygen

Activation energy:

- Lowering temperature

Water + additives "lowering temperature"



- 1 - Enlever la sécurité en tirant sur l'anneau.
- 2 - Appuyer sur la poignée pour la mise en pression.
- 3 - Presser la soufflette et diriger le jet sur la base des flammes.

Dry-chemical "inhibition"



- 1 - Enlever la sécurité en tirant sur l'anneau.
- 2 - Appuyer sur la poignée pour la mise en pression.
- 3 - Presser la soufflette et diriger le jet sur la base des flammes.

CO₂ "smother"



- 1 - Enlever la sécurité en tirant sur l'anneau.
- 2 - Diriger le tromblon sur la base des flammes.
- 3 - Appuyer sur le levier de commande.



Fire Risks: Conclusion

Preventing fires involves the following:

- Limiting the causes of fire:
 - Do not smoke in the buildings
 - Store flammable products and combustible materials in the good place
 - Periodically verify installations
- Keep emergency exits and extinguishing equipment clear
- Do not obstruct aisles
- Learn how to fight fire start
- Take part in fire drills