



नैनो एवं मृदु पदार्थ विज्ञान केंद्र

CENTRE FOR NANO AND
SOFT MATTER SCIENCES

Autonomous Institute under the Dept. of Science and Technology, Govt. of India

Fire Safety Program

In case of unmanageable FIRE calamity, quickly call

Fire Brigade

- Fire Toll free: **101**

- Fire Control room

080-22971550

080-22971600

080-22971500

- Fire Wireless operator

080-22971571

- Nearest Fire Station :

Yelahanka

080 22796680

9341776119 / 09

The aim of fire safety program at CeNS is to broadly

- generate the fire safety awareness effectively
- reduce the risk & number of fires
- reduce loss of life, injury and property damage
- focus on prevention by identifying and rectifying unsafe behaviors.
- developing & practicing escape plans

through education, training and inspection as well as policy and standard developments.

Objectives:

CeNS members should be able to:

- Identify common fire hazards at the workplace
- How to prevent fire incidences
- Follow the emergency procedures in case of fire
- Demonstrate how to correctly use a fire extinguisher
- Take part in a company fire drill, and demonstrate the correct emergency response

NEVER fight a fire if:

- If you are not equipped with proper extinguisher
- The fire has spread beyond its point of origin and limit

Action: Mercilessly “Get Out Quickly But

Calmly & Loudly Say

“FIRE, FIRE, FIRE, HELP, HELP”

Raise the alarm & call the fire Brigade

Evacuation Instruction

- **Get out of the fire-site/building/area calmly but as quickly as possible & don't leave personal belongings**
- **Don't run, it leads to panic (you remain helpless/confused)**
- **Use staircase and never use elevators/lift**
- **If accessible, follow instruction strictly from Safety Officer/Police/Security, and never ask details and argue with them**
- **If possible switch-off equipments, electricity, gases etc.**
- **Try to help and bring out ladies, children and old people**
- **Don't obstruct passage of your own, police /Fire squad**
- **Wait in assembly area till instruction from Safety Officer.**

FIRE Management : Healthy Habits

Make sure that you are aware of

- Escape routes
- Exit doors and how to undo them
- Locations of fire fighting equipment
- Types of fire fighting equipment (Extinguishers / Blankets)
- Locations of call points
- The assembly points
- Cell numbers of Safety Office / in-charge
- Phone / Cell Numbers fire brigade

FIRE Drill

- Mock fire drills are absolutely essential to ensure that all the members know how to get out of a building to a safe area in case of a fire/emergency
- Mock drills provide you protocols to prepare for a fire / emergency and the action to be taken when the fire alarm rings
- Mock drill enables us to prepare for a fire/any disaster without the disruption.

Understanding the Basics of FIRE

FIRE : It is chemical reaction (combustion) producing heat and light

It is RAPID, HOT, DARK & DEADLY

FUEL, HEAT & OXYGEN are essential to initiate and sustain **FIRE**

It exists until one or more of these elements is removed

FIRE triangle: FIRE exists when 3 elements of the triangle are present



Remove one or
more of these
components to
put-off **FIRE**

Wild (uncontrollable) FIRE leads to

- **Huge (thick) smoke:** Kills / Creates health problems as it contains CO & HCN
- **Fumes :** Kills / Destroys as it raises the temp. up to 1250°C
- **Soot :** Kills / Health problems - gets absorbed in the skin & eyes
Bronchitis & asthma, Heart attack and Stroke, and even cancer)
- **Burns :** Injury to skin, or other tissues, caused by heat)
- **Breathing difficulties**
- **Asphyxiation :** Deficient supply of oxygen to the body that arises from abnormal breathing
- **Poisoning**
- **Building debris/ Property loss / Damage**
- **Trips**
- **Trampling**

Following are the common fire hazards in the workplace:

- Waste and combustible materials
- Flammable vapours, liquids & solids
- Plastics
- Stationary items
- Wood
- Fabric
- Dust accumulation
- Heat generating objects
- Faulty electrical equipment
- Overloading power sockets
- Dry garden wastes
- Smoking
- Human error and negligence

FIRE Prevention Tips

- **NEVER Smoke or use match stick in labs**
- **Don't overload electrical sockets in labs**
- **Don't use any frayed electrical cords in labs**
- **Don't run cords under or over furniture**
- **Never put cords against walls or across doorways**
- **Use standard (tested & approved) power strips & extension cords**
- **Management of fire hazard materials (segregation of incompatibles)**

- **The dispensing units should be protected against collision damage**
- **Keep chemical / solvent containers closed when not in use**
- **Store Chemicals / solvents in Fire Resistant Cabinets**
- **Use inert atmosphere when using organometallics**

- **Turn off & unplug all instrument at the end of the day**

Keep Fire Extinguishers at the Places Identified by Safety Officer

TYPES of FIRE EXSTIGUISHERS

Symbols on fire extinguishers & Meaning	WATER	FOAM SORAY	ABC POWDER	CARBON DIOXIDE	WET CHEMICAL
 Wood, paper & textiles	✓	✓	✓	✗	✓
 Flammable Liquids	✗	✓	✓	✓	✗
 Flammable Gases	✗	✗	✓	✗	✗
 Electrical Contacts	✗	✗	✓	✓	✗
 Cooking oils and fats	✗	✗	✗	✗	✓