

LivSafe is a conscious safety initiative of Liberty Videocon to help people live safer, secure lives through an education series of proactive and preventative suggestions in the safety arena. This document does not purport to promote any product, directly, or indirectly.

## Measures to augment proper and safe ways of firefighting and protection



Source: [http://archives.deccanchronicle.com/sites/default/files/mediaimages/gallery/2012/Nov/India-Fire\\_Kand-\(3\).jpg](http://archives.deccanchronicle.com/sites/default/files/mediaimages/gallery/2012/Nov/India-Fire_Kand-(3).jpg)

### Overview

April 14th is celebrated as a 'Fire Extinguishing Day' to create awareness of the dangers of fires and inspiring people to prevent the injuries, deaths and destruction cause by them. Fighting fires is a dangerous business. In most cases, you have only seconds to put out a fire before it flares out of control, and if you're not successful, the damages could be unprecedented. It is possible to extinguish a fire before it consumes a premises or building and it's important to know how to respond in case of a fire.

We at Liberty Videocon General Insurance value the importance of safe methods of fighting fire; and intend to suggest some useful measures to augment the same. We sincerely hope that the measures suggested in this document will help follow proper and safe practices when it comes to firefighting.

### The Fire Triangle

Fire requires the following three elements to exist. These three elements, called the 'fire triangle', create a chemical exothermic reaction, which is fire.



- Heat:** Heat is required to elevate the temperature of a material to its ignition point. Sources of heat include matches, stoves, sparks, etc.
- Fuel:** The fuel for a fire may be a solid (e.g., coal, wood, paper, cloth, hay, etc.), liquid (e.g., gasoline, kerosene, alcohol, paint, cooking oil, etc.), or gas (e.g., propane, natural gas, butane, etc.). The type and quantity of the fuel determine the method to be used to extinguish the fire.
- Oxygen:** Most fires will burn vigorously in any atmosphere of at least 20 percent oxygen. Without oxygen, most fuels will vaporize when heated, without burning.

### Suitable Firefighting Equipment

Fire at incipient stage can be fought with Portable Fire Extinguisher. This is one of the most effective pieces of firefighting equipment. Various types of hand appliances are available but all are not equally effective on all kinds of fires. For this reason, the nature of contents of a building, the processes carried out therein and the types of fires, which may occur, should be taken into consideration while selecting fire appliances.

Class	Combustibles	Hand Appliances
A	Fires in ordinary combustibles (wood, vegetable fibres, rubber, plastics, paper and the likes).	Gas expelled water and antifreeze type extinguishers and water buckets.
B	Fires in flammable liquids, paints, grease, solvents and the likes.	Chemical extinguishers of carbon dioxide type, dry powder type and sand buckets.
C	Fires in gaseous substances under pressure and liquefied gases.	Chemical extinguishers of carbon dioxide and dry powder type.
D	Fires in reactive chemicals, active metals and the likes.	Special type of dry powder, extinguishers and sand buckets.

*Note: Where energised electrical equipment are involved in a fire, the non-conductivity of the extinguishing media is of utmost importance and only extinguishers expelling dry powder or carbon dioxide (without metal horn) should be used. Once the electrical equipment is de-energised, extinguishers suitable for class a, b and c, may be used safely.*

## Installation

The appliances are to be so distributed over the entire floor such that a person has to travel not more than 15 metres to reach the nearest appliance. Generally Portable Fire Extinguishers (PFE) are to be placed as near as possible to exits or staircase landings by also taking into consideration (wherever possible) the normal routes of escape of persons. PFEs to be so located that the top of the extinguisher is located at a height of 1.5 metres from the finished floor level, or that the bottom of the extinguisher is located at a height of 1 metre from the finished floor level.

## Safety Tips for augmenting proper and safe ways of firefighting

- Use the right extinguisher for firefighting. These key pieces of firefighting equipment come in several different classes. For example, you should never use water on a fire, unless you know what is burning. Water conducts electricity, causing the problem to spread and cause more shorting in the equipment. Water will also move burning oil, gas, and other petroleum products into new areas to ignite. 
- If you get fire on your clothes, the worst thing you can do is run. The rushing air will fuel the fire and make it grow. Instead, drop and roll on the ground until the flames are smothered. 
- Call 101 to report emergencies - don't assume someone else has called for help. When talking to emergency personnel, remain calm and give the dispatcher as much information as you can. 
- Never use the elevator during a fire. You may become trapped if the power goes out. 

## Things to ensure before deciding to fight a fire

- The fire is small and not spreading. A fire can double in size within two or three minutes.
- You have the suitable fire extinguisher for what is burning.
- The fire won't block your exit if you can't control it. A good way to ensure this is to keep the exit at your back.
- Stand several feet away from the fire, moving closer once the fire starts to diminish.
- You know how to use your fire extinguisher. There's not enough time to read instructions when a fire occurs.
- Use a sweeping motion and aim at the base of the fire.
- Be sure to watch the area for a while to ensure it doesn't re-ignite.

## When you should never fight a fire

- **The fire is spreading rapidly**  
Only use a fire extinguisher when the fire is in its early stages. If the fire is already spreading quickly, evacuate and call the fire department.
- **You don't know what is burning**  
Unless you know what is burning, you won't know what type of fire extinguisher to use. Even if you have an ABC extinguisher, there could be something that will explode or produce highly toxic smoke.
- **You don't have the suitable fire extinguisher**  
The wrong type of extinguisher can be dangerous or life threatening.
- **There is too much smoke or you are at risk of inhaling smoke**  
Seven out of ten fire-related deaths occur from breathing poisonous gases produced by the fire.
- **The fire is emitting toxic smoke**  
If you suspect or simply don't know if the smoke is toxic, leave it to the professionals.