VIDYA BHAWAN BALIKA VIDYAPEETH

STUDY MATERIAL SCIENCE
CLASS-VIII

Date : 20-06-2021 Teacher : Poonam Kumari

Combustion :

Carbon dioxide extinguishers are of two types :

In one type the gas is stored under pressure in a small cylinder, which released by means of a valve during use. The other type uses a dry powder, typically sodium bicarbonate or potassium bicarbonate. When the dry powder is sprinkled over fire, the chemicals decompose and release carbon dioxide, cutting off the supply of oxygen.

Types of combustion :

When a combustible substance is ignited, it catches fire. But all combustible substances do not catch fire in the same way. When a lighted match is brought near a gas stove and the gas is turned on, it catches fire instantly. Similarly, if a little alcohol is taken in a petri dish or a watch glass and a lighted match is brought near it, the alcohol catches fire instantly and burns with a blue flame. Such a type of combustion is known as **rapid combustion.**

Some combustible substances, such as white phosphorus, catch fire and burn at room temperature when exposed to air. They appear to burst into flames suddenly. This type of combustion without any external heat source is called **spontaneous combustion**. An explosion is an

extremely rapid combustion during which a brilliant flash of light and heat are produced along with a large amount of gas, which expands rapidly causing a loud noise. This is typically seen in bursting crackers and crude bombs.

Flame :

When there is fire, flames are usually see. A flame is actually An exploding firecrackers the burning gas. However, all burning objects do not produce a flame. Only the substances that vaporise during burning, produce flame. Thus, burning coal, smouldering wood or dung cake only glow; they do not produce a flame because they do not produce any vapour or gas. But a candle, a kerosene lamp and a gas burner produce flame because they burn a gas or vapour. In case of a candle, to wax around the wick melts as soon as the wick is lit. The wick then draws the molten wax by capillary action, which turns into vapour due to the heat. It is the vapour that burns with a flame; the wick does not burn and only acts as a medium. Similarly, in a kerosene lamp, the wick draws kerosene from the container below by capillary action, which turns into vapour and burns with a flame. In the case of a Bunsen burner or a gas burner in the kitchen, the gas that is fed into the burner by a pipe, burns and produces the flame.