

## Properties and Applications of Hydrogen Gas

### Physical Properties of Hydrogen Gas

1. Hydrogen is gas at room temperature
2. Hydrogen gas is Odorless and colourless
3. It is Tasteless
4. Hydrogen non-metallic in nature.

### Chemical Properties of Hydrogen Gas

1. Hydrogen gas can exist in ionic ( $H^+$ ,  $H^-$  or  $H\cdot$ ) and molecular form ( $H_2$ )
2. It is lighter than air
3. It acts as reducing agent in many reactions
4. It is non-toxic

### Applications of Hydrogen gas

#### As a Fuel

1. It acts as a clean fuel
2. It can be used as fuel for car, bus and many commercial vehicles.
3. Hydrogen gas acts an alternative fuel in place of petrol or diesel
4. It also acts as fuel for spacecraft propulsion

#### Other applications

1. It acts as reducing agent in many reactions
2. It acts as energy carrier
3. It acts as coolant
4. It is used in welding
5. Acts as lifting gas