

## Base



The substances that are bitter in taste and soapy (slippery) to touch are called **bases**.

The bases which are soluble in water called **alkalis**.



### Properties of Bases:

- Bases are bitter to taste.
- Bases turn red litmus to blue.
- Some of the bases are soluble in water they are called alkalis (potassium hydroxide and sodium hydroxide).
- Bases react with acids to form a salt and water.



(Ammonium Hydroxide) + (Hydrochloric acid)  $\rightarrow$  (Ammonium chloride) + (Water)

- Bases react with metals to form salt and hydrogen gas



(Sodium hydroxide) + (Zinc)  $\rightarrow$  (Sodium Zincate) + (Hydrogen)



### Uses of Bases

- Sodium hydroxide is used in the production of soap, paper, and rayon, a synthetic fibre.
- Calcium hydroxide (also known as slaked lime) is used in the production of bleaching powder.
- Magnesium hydroxide is used as an antacid to neutralize excess stomach acid and cure indigestion.
- Sodium carbonate is used to soften hard water and as a washing soda.
- Sodium hydrogen carbonate is used in baking soda, baking powders, as an antacid to treat indigestion, and in soda-acid fire extinguishers.