

CHAPTER 02

Acids, Bases and Salts

Baking soda & Washing soda:**Baking soda:**

Chemical name of baking soda is sodium hydrogen carbonate. NaHCO_3 . Baking soda is obtained by sodium chloride solution. When sodium chloride solution is saturated with ammonia carbon dioxide gas is passed through this solution, it gives sodium hydrogen carbonate with ammonium chloride as one more product.



Sodium hydrogen carbonate is a mild non - corrosive base and also used to produce sodium carbonate.

Heating of NaHCO_3 produce Na_2CO_3

**Uses:**

Baking soda is used,

- In the preparation of baking powder.

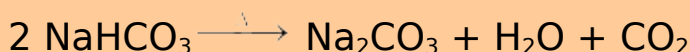
Baking powder is a mixture of baking soda with a mild powder like tartaric acid. When baking powder or baking soda is dissolved into water it release carbon dioxide, which makes the food raise and makes it spongy & fluffy.

- As a mild antacid. As it is basic in nature and can raise p^H of stomach.
- As a fire extinguisher. It release carbon dioxide and can control the fire.

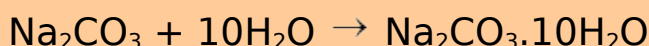
Washing soda:

Chemical name of washing soda is sodium carbonate decahydrate. $Na_2CO_3 \cdot 10H_2O$. It is obtained from sodium carbonate, which in turn is obtained from sodium bicarbonate.

Strong heating of sodium bicarbonate makes it decompose and gives sodium carbonate.



Sodium carbonate is dissolved in certain quantity of water and recrystallized to give sodium carbonate decahydrate ($Na_2CO_3 \cdot 10H_2O$), which is washing soda.



Uses:

Washing soda is used as,

- Main ingredient in paper, textile and glass industries.
- As a cleaning agent for domestic purpose.
- For the preparation of sodium compounds such as borax.
- For removal of permanent hardness of water means to convert hard water into soft water.

