

Acidifiers :

These are the drugs which are able to increase acidity in gastro intestinal tract

* Some of these drugs are also used to increased metabolic Acidoses

* Acidifiers are 4 types

- 1) gastric acidifiers
- 2) Systemic acidifiers
- 3) urinary acidifiers
- 4) acids

* gastric acidifiers :

These are the drugs which are used to Restore temporarily The acidity of the stomach in patient suffering from Achlorhydria & Hypochlorhydria

* Systemic acidifiers :

These are the drugs which are able to neutralise the Alkaline Body fluids particularly Blood in patients suffering from Systemic metabolic Alkalosis

* urinary acidifiers :

These are the drugs which increase the acidity of urine, which helps in the treatment of urinary tract disorders

* Acids :

used as pharmaceutical acids in the Preparation of various drugs

→

dilute HCl :

category :- Acidifier

MW :- 36.5

Synonym :- Spirit of salt

Preparation :- 274 gm of HCl is added to 726 gm of water

properties :

→ it is a colourless, clear and fuming liquid.

→ it has a pungent odour

→ it is soluble in water and alcohol

Storage → it is stored in a well closed container of glass or other inert material at a temperature not exceeding 30°

uses :

→ used as acidifier

→ used as pharmaceutical aid

→ it is also used to activate proteolytic enzyme "pepsin"

Example 2 :

② NH_4Cl → Ammonium chloride

molecular formula : NH_4Cl

Category : Acidifier

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preparation: Commercially it is prepared by neutralizing ammonia with HCl

→ The solution is evaporated till thick
viscous crystalline mass of NH_4Cl is obtained

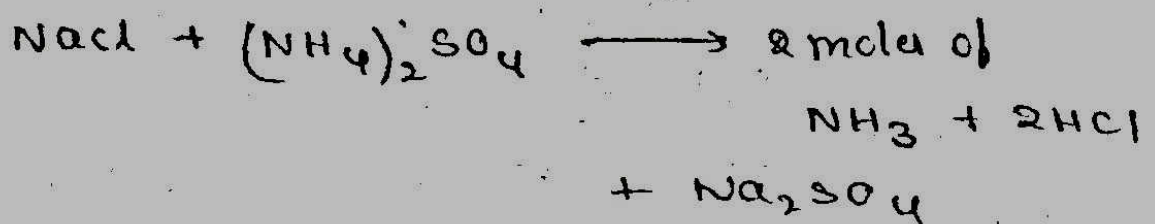


method - 2:

it is also prepared by treating
ammoniacal gas ^{liquorous} with lime and the liberated
ammonia is passed into HCl

method - 3

it is also prepared by heating
ammonium sulphate with NaCl



properties:

→ it is a white, fine and coarse crystal-
line powder

→ it is colourless

→ it is soluble in water and alcohol

→ it is freely soluble in glycerine

→ A solution of 0.8% $\frac{\text{w}}{\text{v}}$ of NH_4Cl
is isotonic with serum

uses:

• maintaining acid-base equilibrium in

Body fluids

- * it has diuretic effect
- * used as a mild expectorant

Storage:

- * Stored in a tightly closed container

Dose:

- * As Systemic acidifier 1-2 gm 4 times a day
- * for expectorant action 0.3 to 0.5 gm dose is used

- * Administered in the form of Injection and tablet

Assay:

Assay is done by acid-base titration about 0.1 gm of NH_4Cl sample is weighed accurately and kept in a conical flask about 50 ml of water is added to dissolve it followed by addition of 5 ml of neutralized formaldehyde solution. neutralisation is done by dilute NaOH solution after keeping aside for a couple of minutes the liberated HCl is made to titrate with standard NaOH by using phenolphthalein as an indicator

Equivalent factor:

Each ml of 0.1N NaOH = 0.005349 gm of NH_4Cl