TIKRIT UNIVERSITY
COLLEGE OF PHARMACY

Inorganic Pharmaceutical Chemistry

Lab5

Preparation and standardization of 1N NaOH

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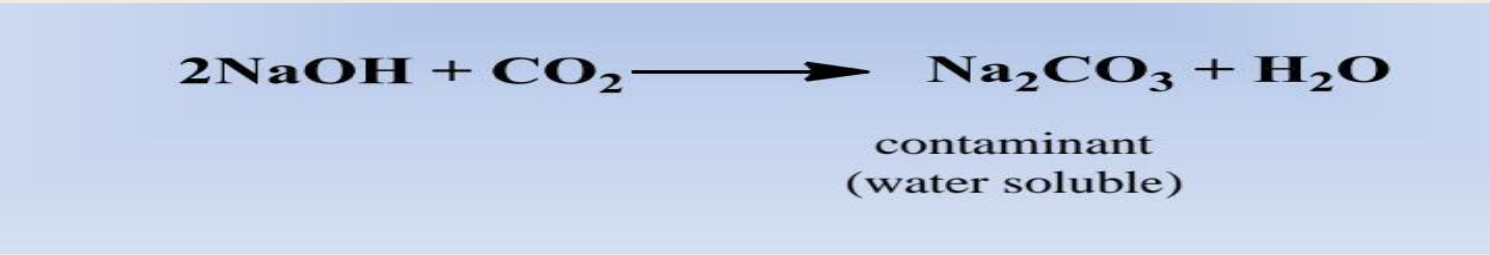
Sodium hydroxide

Sodium hydroxide is a strong base that is usually used to prepare standard alkaline solutions useful for volumetric analysis of acidic compounds. Sodium hydroxide is hygroscopic and can react with atmospheric carbon dioxide.



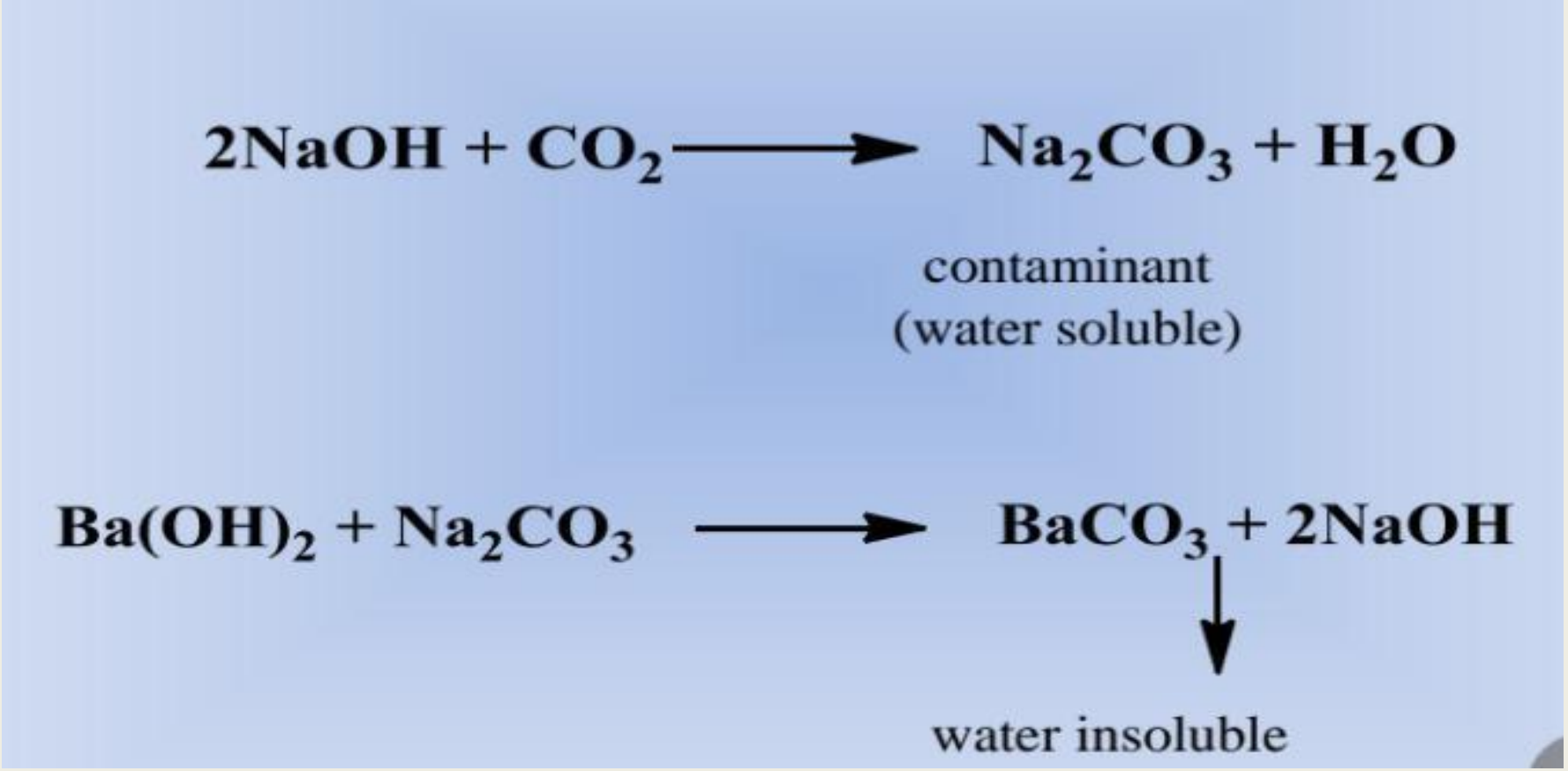
Toxicology of alkaline

Following exposure to an alkaline xenobiotic,dissociated hydroxide (OH–) ions penetrate tissue surfaces, producing a histologic pattern of liquefactive necrosis. This process includes protein dissolution, collagen destruction, fat saponification, cell membrane emulsification, transmural thrombosis, and cell death. Animal studies of alkali exposure to the eye demonstrate rapid formation of corneal epithelial defects with eventual deep penetration that may lead to perforation

Preparation and standardization of 1N of NaOH

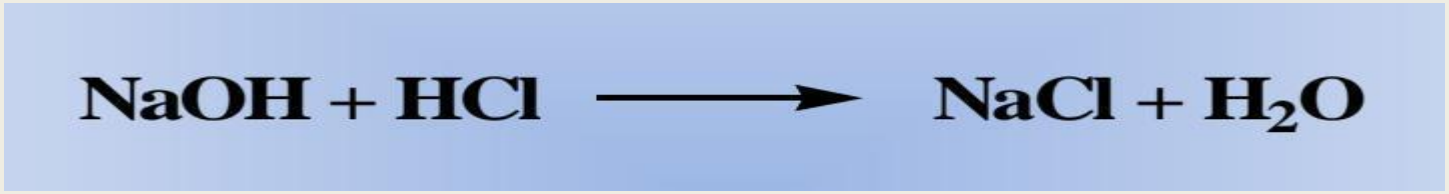
- Dissolve 1.25 g of sodium hydroxide in 25mL distilled water, allow to cool, and then add barium chloride solution drop wise with stirring until a precipitate is formed. Leave aside allowing for complete precipitation, filter, and collect the filtrate to be standardized against 1 N HCl solution

Preparation and standardization of 1N of NaOH



Preparation and standardization of 1N of NaOH

- Standardization



- 1N of HCL solution used as standard solution
- Phenolphthalein use as the indicator

Titration

PH 8.3

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Procedure

- Take 1.25 gm of NaOH and dissolve with distil water to final volume 25 ml
- Add barium chloride. drop wise with stirring until a precipitate is formed
- Leave aside for complete precipitation,then filter and collect the filtrate.
- Transport 10 ml into conical flask for titration
- Add 3 drop of ph.ph indicator .
- Prepare the standard solution of HCL 1N 25ml.
- Start titration until the end point.
- Record the volume change HCL.

Calculation

N1:the normality of NaOH solution
V1:the volume of NaOH solution used

N2:the normality of HCl
V2: volume of HCl solution used