



REAGENT STANDARDIZATION

Equipment

125 ml Erlenmeyer flask(s)
Burette assemblies
Pipet(s), volumetric, Class A
Safety bulb

Reagents

See table

Procedure

Accurately pipet the amount shown of the suggested standard into an Erlenmeyer flask.
Add the indicator listed.

Fill buret with the reagent to be standardized and titrate standard to the end point.

Calculate the normality of the reagent.

Calculation

$$N_{\text{reagent}} = \frac{N_{\text{standard}} \times \text{Volume}_{\text{standard}}}{\text{Volume}_{\text{reagent}}}$$

Disposal

In sink

Notes

REAGENT	SUGGESTED STANDARD	Volume of Standard	Indicator
0.1N Sodium Hydroxide	0.1N Hydrochloric Acid	5 mL	Phenolphthalein
0.01N Sodium Hydroxide	0.01N Hydrochloric Acid	5 mL	Phenolphthalein
0.02N Iodine	0.02N Sodium Thiosulfate	5 mL	Starch

For NBS-traceable procedures, see the Reagent Preparation Manual for standardization of Sodium Hydroxide against Potassium Biphthalate and Sodium Thiosulfate against Potassium Dichromate.

Example: Using 5 mL 0.1N Hydrochloric Acid with 2 drops of Phenolphthalein, Titrate with 0.1N Sodium Hydroxide until faint pink endpoint reached. If the volume of Sodium Hydroxide used is 5.1mL, the Sodium Hydroxide Normality is calculated as 5mL (0.1N) / 5.1mL = 0.098N.