

## NITROGEN DETERMINATION (NPA)

### Equipment and solutions required:

- 100-ml test tube
- 50-ml double measurement pipette
- pH meter
- Beaker
- 50-ml test tube
- 25-ml burette
- Sodium hydroxide 1N
- Sodium hydroxide N/20

### Procedure:

1. Add 50 ml of sample into the 100-ml test tube and bring to 100-ml volume with distilled water.
2. Pour it into a beaker and neutralize using 1N sodium hydroxide.
3. Adjust pH to 8.0 using N/20 sodium hydroxide and a pH meter
4. Add 30 ml of 20% methanol and titrate with N/20 sodium hydroxide until pH 8.0. This volume of titrated N/20 sodium hydroxide is used to calculate the result.

### Result expression:

The mg of NPA per liter are: ml N/20 sodium hydroxide used x 56

Normal value: 200 mg/liter.

*NOTE: Remove SO<sub>2</sub> by boiling and recover the water loss.*