

CHEMISTRY

Lab 13: Concentration of Ethanoic Acid in vinegar

Procedure:

1. Measure the mass of seven NaOH pellets.
2. Put the pellets in a 250ml volumetric flask and add 150 ml of deionized water.
3. Mix well until the NaOH pellets are completely dissolved.
4. Make up to the mark with deionized water and mix once more.
5. Pipette 25ml of the vinegar into a 250ml volumetric flask, make up to the mark with deionized water and mix well.
6. Pipette 25ml of the diluted vinegar solution into a conical flask and add a few drops of phenolphthalein indicator.
7. Titrate with the NaOH solution you have prepared.

Processing:

1. Write the neutralization reaction between ethanoic acid (CH_3COOH) and sodium hydroxide.
2. Calculate the concentration of ethanoic acid in vinegar in mol/dm^3 , in g/dm^3 and in v/v% ($\text{CH}_3\text{COOH} = 1.05 \text{ gcm}^{-3}$)