1st year LMD SNV   Department of Biology
Subject: Chemistry 1   Academic year

Practical Work No. 3:
DETERMINING THE ACIDITY DEGREE OF A VINEGAR

I. Introduction:

a- Vinegar is essentially a dilute aqueous solution of ethanolic acid: CH,COOH

b- Commercial concentrations are expressed in degrees (vinegar 6° or 8°)

c- **Definition:** the degree of vinegar is equal to the mass, in grams, of pure ethanolic acid contained in 100 g of vinegar solution (density of vinegar: $p = 1.0 g/cm^3$),

d- Checking the degree of acidity of white vinegar by acid-base dosage.

II. Materials:

Erlenmeyer flask (50ml), volumetric flask (100ml), pipette with dipstick, test tube, graduated burette, beakers

III. Products used:

Potash hydroxide (KOH) or sodium hydroxide (NaOH) solution 0.1N, white vinegar, colored indicators and distilled water.

IV. Operating Mode:

a- Dilution of the vinegar solution:

- Since the vinegar solution is too concentrated, it must be diluted 10 times, to obtain a diluted solution.

b- Dosage of vinegar using a 0.1N KOH or NaOH solution:

- Precisely take, using a pipette, 10ml of diluted white vinegar and pour this volume into an Erlenmeyer flask.
- Add 2 to 3 drops of phenolphthalein as a colored indicator
- Rinse the burette with a few ml of the KOH solution 0,1N and fill it with this same solution.
- Pour the basic KOH solution drop by drop onto the acidic solution until the color changes.
- Note this volume.
- Repeat the operation 3 times to ensure results (The difference between the volumes must not be greater than 0.1ml