

CHEM 1031

DETERMINATION OF THE
PERCENT ACETIC ACID IN
A VINEGAR SAMPLE

- PART I - DETERMINE THE CONCENTRATION OF HCl USING Na_2CO_3 .
- PART II - NaOH USING HCl
- PART III - ACETIC ACID IN VINEGAR USING NaOH

PROCEDURE - PART 1

- OBTAIN VIAL OF Na_2CO_3 , BURET, AND PAPER STRIP FROM STOCK ROOM.
- IN A 500 ml FLAT BOTTOM BOILING FLASK, ADD 250 ml dH_2O
- IN A 10 ml CYLINDER, MEASURE 8.4 ml OF 6M HCl AND ADD TO FLASK.

- GET 3 250 ml ERLLENMEYER FLASKS AND ADD ~.2-.25 g Na_2CO_3 .
- ADD ~30-50 ml dH_2O TO EACH FLASK.
- ADD THREE DROPS BROMOPHENOL BLUE INDICATOR

- CLEAN BURETS, THEN RINSE 3 TIMES WITH 5 ml SAMPLES OF HCl.
- FILL BURET WITH HCl.
- TITRATE SOLUTION.
- SAVE HCl.

PROCEDURE - PART 2

- STOCKROOM: BURET, 25 ml VOLUMETRIC PIPET.
- IN A LARGE BROWN BOTTLE, ADD 8.2 ml OF 6M NaOH. DILUTE TO 500 ml. (STOP UP NaOH)

- CLEAN PIPET WITH 5 ml dH₂O.
RINSE 3 TIMES WITH 5 ml
SAMPLES OF HCl.
- PIPET 25 ml HCl INTO 3
ERLENMEYER FLASKS.
- ADD 50 ml dH₂O TO EACH.

- ADD 3 DROPS OF PHENOLPHTHALEIN INDICATOR.
- RINSE BURET WITH 5 ml SAMPLES OF NaOH.
- FILL BURET WITH NaOH AND TITRATE SAMPLES.

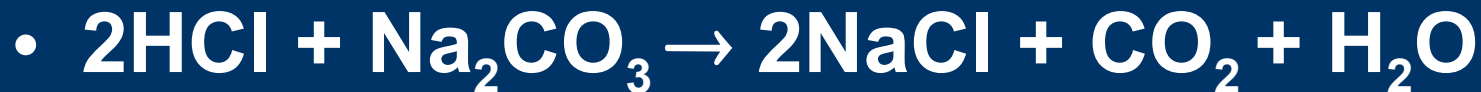
PROCEDURE - PART 3

- OBTAIN 50 ml OF VINEGAR SAMPLE IN A 250 ml BEAKER.
- CLEAN A 10 ml PIPET WITH 1 ml dH_2O , THEN 3 TIMES WITH 1 ml VINEGAR SAMPLE.

- ADD 5 ml OF VINEGAR SAMPLE INTO 3 ERLLENMEYER FLASKS.
- ADD 40 ml dH₂O AND 3 DROPS OF PHENOLPHTHALEIN INDICATOR TO EACH FLASK.
- TITRATE SAMPLES.

REACTIONS

PART I



PART II



PART III

