

## PHARMACEUTICAL CHEMISTRY

### EXPERIMENT NO -24

**OBJECT:** To perform assay of Magnesium sulphate IP 1996.

#### REFERENCE

Parle A., "Pharmaceutical chemistry I Laboratory Manual", CBS Publishers and distributors Pvt. Ltd, Ed I<sup>st</sup>, 2008, pp 139-140.

#### STANDARDS

Magnesium sulphate contains not less than 99.00% and not more than 100.5% of MgSO<sub>4</sub>.

#### REQUIREMENTS

**Chemical required:** Ammonium chloride, strong ammonia, ammonium chloride solution.

**Apparatus required:** conical flask, burette, pipette, beaker, etc.

#### THEORY

This is a complexometric titration (Direct titration).

#### PROCEDURE

Your unknown for this experiment is a solution. When you obtain your unknown, you need to quantitatively transfer it to a 100 mL volumetric flask and dilute it to the mark, resulting in the "prepared" unknown solution. You are to report the results of this "prepared" unknown. Transfer exactly 10 mL of the prepared unknown solution into 3 or 4 Erlenmeyer flasks. Add approximately 15 mL of pH 10 buffer in the hood and 20 or 25 mL of distilled, deionized water to each flask. Add a few crystals of Eriochrome Black T indicator -- it is crucial that you only add enough indicator to produce a light, wine-red color. Titrate each solution with your standardized EDTA solution to a clear blue color. Report your results as percent magnesium (% w/v) in your "prepared" unknown sample. Also report the 95% confidence interval.

#### RESULT:

The percentage purity of magnesium sulphate in the given sample is \_\_\_\_\_ % w/w.