EXPERIMENT NO -14

OBJECT: To perform the identification test of sodium chloride.

REFERENCE

1. Singh H.R., Kapoor V.K. "Practical Pharmaceutical chemistry", Vallabh Prakashan, Ed Ist, 2008, pp 19-20.
2. Chatwal GR, "Pharmaceutical chemistry inorganic" Himalaya publishing house, Ed 5th, 2010, pp 256-257

REQUIREMENTS

Chemical required: Sodium chloride, Potassium carbonate, potassium antimonite solution, acetic acid, magnesium uranyl acetate solution, nitric acid, silver nitrate solution, dilute ammonia solution, potassium dichromate, sulphuric acid, etc

Apparatus required: Volumetric flask, conical flask, Burette, Pipette, Glass rod.

THEORY

Any process that can provide a qualitative determination of the ions present in a simple inorganic compound is based upon knowledge of acid/base chemistry, redox chemistry, and solubility. In this regard, the identification of a single pure compound is therefore very much simpler than the identification of a mixture. This experiment deals only with the identification of simple compounds, ie those that contain only one cation and one anion.

PROCEDURE

REACTIONS OF SODIUM IONS

S.NO	TEST	OBSERVATION	INFERENCE
1	Take 2 ml of the test solution, add 2 ml of 15% solution of potassium carbonate. Heat to boiling. Add 4 ml of potassium antimonite solution. Heat to boiling. Cool in ice.		
2	To 2 ml of the test, solution add 0.5 ml of 1 M acetic acid followed by a large excess of magnesium uranyl acetate solution.		

REACTION 0F CHLORIDES

S. NO	TEST	OBSERVATION	INFERENCE
1	Dissolve 2mg of sample in 2ml of water. Acidify with dilute nitric acid. Add 0.5 ml of silver nitrate solution.Shake and allow to stand.add ammonia+nitric acid.		
2	Mix 10 mg sample with 0.2 gm of potassium dichromate in a test tube..Add 1 ml of sulfuric acid. Place a filter paper strip, moistened with 0.1ml of diphenyl carbazide solution,over the mouth of the test tube.		

RESULT:

An identification test of sodium chloride was performed.