

LAB 1

Experimental work

Prepare the following using suitable glassware and lab equipments:

- 50 ml of **0.5 M NaCl solution** (M.wt NaCl = 58.5 gm/mol); **then**, using the prepared solution, prepare 50 ml of **0.1 M NaCl solution**.
- 50 ml of **0.5 N Na₂CO₃ solution** (M.wt Na₂CO₃ = 106 gm/mol); **then**, using the prepared solution, prepare 50 ml of **0.1 N Na₂CO₃ solution**.
- 50 ml of **10 % (w/v) NaCl solution**; **then**, using the prepared solution, prepare 50 ml of **2 % (w/v) NaCl solution**.
- 50 ml of **5 % (v/v) Ethanol solution**; **then**, using the prepared solution, prepare 50 ml of **2 % (v/v) ethanol solution**.
- 5 gm of **2 % (w/w) ZnO in talc powder**; **then** using the prepared mixture prepare 5 gm of **0.5 % (w/w) ZnO in talc powder**.

Group number	Chemicals required	Glassware required
1	NaCl DW	100 ml beaker Washing bottle Stirrer 50 ml Volumetric flask Pipette sucker
2	Sodium carbonate DW	100 ml beaker Washing bottle Stirrer 50 ml Volumetric flask Pipette sucker
3	NaCl DW	100 ml beaker Washing bottle Stirrer 50 ml Volumetric flask Pipette sucker
4	Ethanol DW	100 ml beaker Washing bottle 50 ml Volumetric flask Pipette sucker
5	ZnO Talc	Mortar and pestle
Total class requirements	• NaCl powder • Sodium carbonate • Talc powder • ZnO powder • Ethanol • DW	• Burette with stand and clamp (1): fill with ethanol and stopper. • Washing bottle (4) • Stirrer (3) • 50 ml volumetric flask (4) • 100 ml beaker (4) • Mortar and pestle (1) • Electrical balance (1) • 10 ml graduated pipette (4) • Pipette sucker (4) • Plastic spoon or weighing spatula for each powder container (4)-if not available, provide at least one for each class.