

Solution Number	Concentration of Solution	Name of Solution	Formula of Solution	Predicted pH (qualitative)	Indicator Results
1	0.001M	Hydrochloric acid	HCl	5	BTB (Y6.0-7.6B) – yellow MR (R4.4-6.2Y) – pink AYR (Y10.0-12.1R) – yellow
2	0.001M	Sodium hydroxide	NaOH	11	BTB (Y6.0-7.6B) – blue AYR (Y10.0-12.1R) – orange IC (B11.6-14Y) – blue
3	0.001M	Acetic acid	HC2H3O2	3.5	BTB (Y6.0-7.6B) – yellow OIV (R1.2-4.8Y) – yellow MO (R3.1-4.4Y) – yellow/orange
4	0.001M	Ammonium hydroxide	NH4OH	8.5	BTB (Y6.0-7.6B) – blue THPH (C9.3-10.5B) – colorless PR (Y6.4-8.2R) – red
5	0.1M	Sodium chloride	NaCl	5	BTB (Y6.0-7.6B) – yellow BPB (Y3.0-4.6B) – blue CR (B3.0-5.0R) – red
6	1.0M	Ammonium hydroxide	NH4OH	11	BTB (Y6.0-7.6B) – blue PHTH (C8.2-10.0P) – pink IC (B11.6-14Y) – blue
7	0.1M	Sodium bisulfite	NaHSO3	2.75	BTB (Y6.0-7.6B) – yellow CR (B3.0-5.0R) – black OIV (R1.2-4.8Y) – yellow
8	0.1M	Sodium carbonate	Na2CO3	11.5	BTB (Y6.0-7.6B) – blue PHTH (C8.2-10.0P) – pink AYR (Y10.0-12.1R) – red
9	0.1M	Sodium bicarbonate	NaHCO3	8.5	BTB (Y6.0-7.6B) – blue THPH (C9.3-10.5B) – colorless PR (Y6.4-8.2R) – red
10	0.1M	Ammonium chloride	NH4Cl	5	BTB (Y6.0-7.6B) – yellow BPB (Y3.0-4.6B) – blue BCG (Y3.8-5.4B) – blue-green
11	1.0M	Acetic acid	HC2H3O2	2.75	BTB (Y6.0-7.6B) – yellow CR (B3.0-5.0R) – black AYR (Y10.0-12.1R) – yellow
12	0.1M	Ammonium acetate	NH4C2H3O2	9	BTB (Y6.0-7.6B) – green PR (Y6.4-8.2R) – red AYR (Y10.0-12.1R) – yellow
13		Deionized water	H2O	6	BTB (Y6.0-7.6B) – yellow CR (B3.0-5.0R) – red BCP (Y5.2-6.8Pur) - purple

14	0.1M	Sodium phosphate	Na ₃ PO ₄	Basic	BTB (Y6.0-7.6B) – blue TB (Y8.0-9.6B) – blue THPH (C9.3-10.5B) – blue AYR (Y10.0-12.1R) – brick red/ orange
15	0.1M	Sodium acetate	NaC ₂ H ₃ O ₂	Basic	BTB (Y6.0-7.6B) – blue TB (Y8.0-9.6B) – greenish-yellow PR (Y6.4-8.2R) – salmon pink