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| 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 | Na3PO4 | 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  IC (B11.6-14Y) – teal blue |
| 15 | 0.1M | Sodium acetate | NaC2H3O2 | Basic | BTB (Y6.0-7.6B) – blue  TB (Y8.0-9.6B) – greenish-yellow  PR (Y6.4-8.2R) – salmon pink |