

COMPOSITION OF CONCENTRATED REAGENT SOLUTIONS

Chemical	Formula weight of Reagent	Approximate Strength of Conc. Reagent % by mass	Assay Limits % by mass	Molarity of Conc. Reagent	mL of Conc. Reagent needed to prepare 1 L of 1 Molar solution
Acetic Acid (HC ₂ H ₃ O ₂)	60.05	99.8	99.7-99.9	17.4	57.5
Hydrochloric Acid (HCl)	36.46	37.2	36.5-38.0	12.1	82.5
Hydrofluoric Acid (HF)	20.01	49.0	48.0-51.0	28.9	34.5
Nitric Acid (HNO ₃)	63.02	70.4	69.0-71.0	15.9	63.0
Phosphoric Acid (H ₃ PO ₄)	97.99	85.5	85.0-87.0	14.8	67.5
Sulfuric Acid (H ₂ SO ₄)	98.09	96.0	95.0-98.0	18.0	55.5
Ammonia (NH ₃)	17.03	28.0	-	14.5	69.0
Sodium Hydroxide (NaOH)	40.0	50.5	50.0-52.0	19.4	51.5
Potassium Hydroxide (KOH)	56.11	45.0	45.0-46.0	11.7	85.5