

Concentrations of Common Commercial Acids and Bases

Item	Formula Weight	Specific Gravity	Molarity	Normality	Reagent Percent (w/w)	To Prepare 1L of 1 Molar Solution
Acetic Acid, Glacial (CH ₃ COOH)	60.05	1.05	17.4	17.4	99.7%	57.5mL
Acetic Anhydride (CH ₃ CO) ₂ O	102.09	1.08	-	-	97.0%	-
Ammonium Hydroxide (NH ₄ OH)	35.05	0.90	14.8	14.8	57.0%	69.0mL
Formic Acid (HCOOH)	46.03	1.29	23.6	23.6	90.5%	42.5mL
Hydrochloric Acid (HCl)	36.46	1.19	12.1	12.1	37.0%	82.5mL
Hydrofluoric Acid (HF)	20.01	1.18	28.9	28.9	49.0%	34.5mL
Nitric Acid (HNO ₃)	63.01	1.42	15.8	15.8	70.0%	63.0mL
Perchloric Acid 70% (HClO ₄)	100.46	1.67	11.7	11.7	70.0%	85.5mL
Perchloric Acid 60% (HClO ₄)	100.46	1.54	9.1	9.1	60.0%	110.0mL
Phosphoric Acid (H ₃ PO ₄)	98.00	1.70	14.8	44.6	85.0%	67.5mL
Potassium Hydroxide (KOH)	56.11	1.46	11.7	11.7	45.0%	85.5mL
Sodium Hydroxide (NaOH)	40.01	1.53	19.3	19.3	50.0%	52.3mL
Sulfuric Acid (H ₂ SO ₄)	98.08	1.84	18.0	36.0	96.0%	55.5mL