

Concentrations of Stock Acid and Base Solutions

Name	Empirical Formula	Molar Mass	Mass Percent	Density	Molarity
Acetic Acid	$\text{HC}_2\text{H}_3\text{O}_2$ or CH_3COOH	60.052	99.8	1.05	17.4
Hydrochloric Acid	HCl	36.461	37.2	1.18	12.1
Hydrofluoric Acid	HF	20.006	49.0	1.15	28.9
Nitric Acid	HNO_3	63.013	70.4	1.41	15.9
Perchloric Acid	HClO_4	100.458	70.5 or 61.3	1.66	11.7 or 9.5
Phosphoric Acid	H_3PO_4	97.995	85.5	1.68	14.8
Sulfuric Acid	H_2SO_4	98.073	96.0	1.84	18.0
Ammonium Hydroxide	NH_4OH (NH_3 (aq))	35.046	56.6 (28.8% NH_3)	0.90	14.5
Sodium Hydroxide	NaOH	39.997	50	1.52	19