

APPENDICES

PROPERTIES OF COMMON CONCENTRATED ACIDS USED IN THE LABORATORY

REAGENT	HCl	HNO ₃	H ₂ SO ₄	HCO ₂ H	CH ₃ CO ₂ H	NH ₄ OH
NAME	Hydrochloric acid	Nitric acid	Sulfuric acid	Formic acid or methanoic acid	Acetic acid or ethanoic acid	Ammonium hydroxide
Density (g/ml)	1.18	1.41	1.84	1.20	1.06	0.90
% acid (by weight)	37	70	97	90	~100	29
Molecular weight (g/mol)	36.47	63.02	98.08	46.03	60.05	35.05
Molarity of conc. acid	12	16	18	23.4	17.5	15
Molarity of 10% soln	2.74	1.59	1.02	2.17	1.67	5.63
Volume of conc to make 1L of 1M (ml)	83	64	56	42	58	67
Volume of conc to make 1L of 10% (ml)	227	101	56	93	95	375

% by weight solutions