

constant	symbol	value
Avogadro's number	N_A	6.02214×10^{23}
gas constant	R	$0.0820574 \text{ L}\cdot\text{atm}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$ $8.31446 \text{ J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$
speed of light in a vacuum	c	$299792458 \text{ m}\cdot\text{s}^{-1}$ (exact)
Planck constant	h	$6.62607 \times 10^{-34} \text{ J}\cdot\text{s}$
Rydberg energy	R_y	$2.17987 \times 10^{-18} \text{ J}$
Boltzmann constant	k_B	$1.38065 \times 10^{-23} \text{ J}\cdot\text{K}^{-1}$
elementary charge	e	$1.60218 \times 10^{-19} \text{ C}$
mass of electron	m_e	$9.10938 \times 10^{-31} \text{ kg}$
atomic mass unit	u	$1.66054 \times 10^{-27} \text{ kg}$
standard acceleration due to Earth's gravity	g	$9.80665 \text{ m}\cdot\text{s}^{-2}$ (exact)
ion product of water	K_w	$1.01158 \times 10^{-14} M^2$
Faraday constant	F	$96485.3 \text{ C}\cdot\text{mol}^{-1}$
Coulomb constant	k	$8.98755 \times 10^9 \text{ N}\cdot\text{m}^2\cdot\text{C}^{-2}$
permittivity of free space	ϵ_0	$8.85419 \times 10^{-12} \text{ N}^{-1}\cdot\text{m}^{-2}\cdot\text{C}^2$

name	formula	K_a
acetic acid	$\text{CH}_3\text{CO}_2\text{H}$	1.75×10^{-5}
acetylsalicylic acid	$\text{C}_9\text{H}_8\text{O}_4$	3.02×10^{-4}
ascorbic acid	$\text{C}_6\text{H}_8\text{O}_6$	9.12×10^{-5}
benzoic acid	$\text{C}_6\text{H}_5\text{CO}_2\text{H}$	6.25×10^{-5}
butanoic acid	$\text{C}_3\text{H}_7\text{CO}_2\text{H}$	1.48×10^{-5}
4-chlorobutanoic acid	$\text{C}_3\text{H}_6\text{ClCO}_2\text{H}$	3.02×10^{-5}
chlorous acid	HClO_2	1.15×10^{-2}
crotonic acid	$\text{C}_3\text{H}_5\text{CO}_2\text{H}$	2.04×10^{-5}
formic acid	HCO_2H	1.78×10^{-4}
hypochlorous acid	HClO	3.98×10^{-8}
hydrocyanic acid	HCN	6.17×10^{-10}
hydrofluoric acid	HF	6.31×10^{-4}
nitrous acid	HNO_2	5.62×10^{-4}
propionic acid	$\text{C}_2\text{H}_5\text{CO}_2\text{H}$	1.35×10^{-5}
phenol	$\text{C}_6\text{H}_5\text{OH}$	1.02×10^{-10}
trimethylacetic acid	$\text{C}_4\text{H}_9\text{CO}_2\text{H}$	9.33×10^{-6}

name	formula	K_{b1}	K_{b2}
acetate	CH ₃ CO ₂ ⁻	5.70×10 ⁻¹⁰	--
acetylsalicylate	C ₉ H ₇ O ₄ ⁻	3.02×10 ⁻¹¹	--
ammonia	NH ₃	1.78×10 ⁻⁵	--
aniline	C ₆ H ₅ NH ₂	7.41×10 ⁻¹⁰	--
benzoate	C ₆ H ₅ CO ₂ ⁻	1.60×10 ⁻¹⁰	--
tert-butylamine	(CH ₃) ₃ CNH ₂	4.79×10 ⁻⁴	--
cyanide	CN ⁻	1.62×10 ⁻⁵	--
diethylamine	(CH ₃ CH ₂) ₂ NH	6.92×10 ⁻⁴	--
dimethylamine	(CH ₃) ₂ NH	5.37×10 ⁻⁴	--
ethanolamine	HOCH ₂ CH ₂ NH ₂	3.16×10 ⁻⁵	--
ethylamine	CH ₃ CH ₂ NH ₂	4.47×10 ⁻⁴	--
ethylenediamine	H ₂ NCH ₂ CH ₂ NH ₂	8.32×10 ⁻⁵	7.59×10 ⁻⁸
fluoride	F ⁻	1.58×10 ⁻¹¹	--
formate	HCO ₂ ⁻	5.62×10 ⁻¹¹	--
hydrazine	N ₂ H ₄	1.26×10 ⁻⁶	--
isopropylamine	(CH ₃) ₂ CHNH ₂	4.27×10 ⁻⁴	--
methylamine	CH ₃ NH ₂	4.57×10 ⁻⁴	--
nitrite	NO ₂ ⁻	1.78×10 ⁻¹¹	--
phenolate	C ₆ H ₅ O ⁻	9.77×10 ⁻⁵	--
piperidine	C ₅ H ₁₀ NH	1.33×10 ⁻³	--
n-propylamine	CH ₃ CH ₂ CH ₂ NH ₂	3.47×10 ⁻⁴	--
1,3-propylenediamine	H ₂ NCH ₂ CH ₂ CH ₂ NH ₂	3.55×10 ⁻⁴	7.59×10 ⁻⁶
pyridine	C ₅ H ₅ N	1.70×10 ⁻⁹	--
triethylamine	(CH ₃ CH ₂) ₃ N	5.62×10 ⁻⁴	--
trimethylamine	(CH ₃) ₃ N	6.31×10 ⁻⁵	--
urea	H ₂ NCONH ₂	1.26×10 ⁻¹⁴	--

formula	K_{sp}
Al(OH) ₃	1.80×10 ⁻³³
BaCO ₃	2.58×10 ⁻⁹
BaC ₂ O ₄	1.10×10 ⁻⁷
BaCrO ₄	1.17×10 ⁻¹⁰
BaF ₂	1.84×10 ⁻⁷
Ba(IO ₃) ₂	4.01×10 ⁻⁹
BaSO ₄	1.08×10 ⁻¹⁰
Bi ₂ S ₃	1.60×10 ⁻⁷²
CaCO ₃	3.36×10 ⁻⁹
CaC ₂ O ₄	2.32×10 ⁻⁹
CaCrO ₄	1.00×10 ⁻⁸
CaF ₂	3.45×10 ⁻¹¹
Ca(IO ₃) ₂	6.47×10 ⁻⁶
Ca(OH) ₂	5.02×10 ⁻⁶
Ca ₃ (PO ₄) ₂	2.07×10 ⁻³³
CaSO ₄	4.93×10 ⁻⁵
CdCO ₃	1.0×10 ⁻¹²
Cd(OH) ₂	7.2×10 ⁻¹⁵

CdS	8.00×10 ⁻²⁸
CoCO ₃	1.00×10 ⁻²⁴
Co(OH) ₂	5.92×10 ⁻¹⁵
CoS	4.00×10 ⁻²¹
Cr(OH) ₃	3.00×10 ⁻²⁹
CuBr	6.27×10 ⁻⁹
CuCl	1.72×10 ⁻⁷
CuCO ₃	3.00×10 ⁻¹²
CuI	1.27×10 ⁻¹²
Cu(OH) ₂	2.20×10 ⁻²⁰
CuS	6.00×10 ⁻³⁷
Fe(OH) ₂	4.87×10 ⁻¹⁷
Fe(OH) ₃	2.79×10 ⁻³⁹
FePO ₄	1.30×10 ⁻²²
FeS	6.00×10 ⁻¹⁹
Hg ₂ Br ₂	6.40×10 ⁻²³
Hg ₂ Cl ₂	1.43×10 ⁻¹⁸
Hg ₂ CO ₃	3.6×10 ⁻¹⁷

Hg ₂ (CN) ₂	5.00×10 ⁻⁴⁰
Hg ₂ I ₂	5.2×10 ⁻²⁹
HgS	4.00×10 ⁻⁵⁴
Hg ₂ SO ₄	6.5×10 ⁻⁷
PbBr ₂	6.60×10 ⁻⁶
PbCl ₂	1.70×10 ⁻⁵
PbCO ₃	7.40×10 ⁻¹⁴
PbCrO ₄	2.00×10 ⁻¹⁴
PbF ₂	3.3×10 ⁻⁸
PbI ₂	9.8×10 ⁻⁹
Pb(IO ₃) ₂	3.69×10 ⁻¹³
PbS	3.40×10 ⁻²⁸
PbSO ₄	2.53×10 ⁻⁸
MgCO ₃	6.82×10 ⁻⁶
MgF ₂	5.16×10 ⁻¹¹
Mg(OH) ₂	5.61×10 ⁻¹²
Mg ₃ (PO ₄) ₂	1.04×10 ⁻²⁴
Mn(OH) ₂	1.60×10 ⁻¹³
MnS	3.00×10 ⁻¹⁴

NiCO ₃	1.42×10 ⁻⁷
Ni(OH) ₂	5.48×10 ⁻¹⁶
NiS	1.40×10 ⁻²⁴
RaSO ₄	2.00×10 ⁻¹¹
AgBrO ₃	5.38×10 ⁻⁵
Ag ₂ CO ₃	8.46×10 ⁻¹²
AgBr	5.35×10 ⁻¹³
AgCl	1.77×10 ⁻¹⁰
Ag ₂ CrO ₄	1.12×10 ⁻¹²
AgCN	5.97×10 ⁻¹⁷
AgI	8.52×10 ⁻¹⁷
AgIO ₃	3.17×10 ⁻⁸
Ag ₃ PO ₄	8.89×10 ⁻¹⁷
Ag ₂ S	6.00×10 ⁻⁵¹
Ag ₂ SO ₄	1.20×10 ⁻⁵
SnS	1.00×10 ⁻²⁶
SrCO ₃	5.60×10 ⁻¹⁰
SrF ₂	4.33×10 ⁻⁹
Sr(IO ₃) ₂	1.14×10 ⁻⁷
Sr(OH) ₂	3.20×10 ⁻⁴
SrSO ₄	3.44×10 ⁻⁷
ZnCO ₃	1.46×10 ⁻¹⁰
Zn(IO ₃) ₂	3.90×10 ⁻⁶
Zn(OH) ₂	3.00×10 ⁻¹⁷
ZnS	3.00×10 ⁻²³