

# SOLUBILITY PRODUCT CONSTANTS

Compound	Formula	$K_{sp}$ (25 °C)
Aluminium hydroxide	Al(OH) <sub>3</sub>	$3 \times 10^{-34}$
Aluminium phosphate	AlPO <sub>4</sub>	$9.84 \times 10^{-21}$
Barium bromate	Ba(BrO <sub>3</sub> ) <sub>2</sub>	$2.43 \times 10^{-4}$
Barium carbonate	BaCO <sub>3</sub>	$2.58 \times 10^{-9}$
Barium chromate	BaCrO <sub>4</sub>	$1.17 \times 10^{-10}$
Barium fluoride	BaF <sub>2</sub>	$1.84 \times 10^{-7}$
Barium hydroxide octahydrate	Ba(OH) <sub>2</sub> × 8H <sub>2</sub> O	$2.55 \times 10^{-4}$
Barium iodate	Ba(IO <sub>3</sub> ) <sub>2</sub>	$4.01 \times 10^{-9}$
Barium iodate monohydrate	Ba(IO <sub>3</sub> ) <sub>2</sub> × H <sub>2</sub> O	$1.67 \times 10^{-9}$
Barium molybdate	BaMoO <sub>4</sub>	$3.54 \times 10^{-8}$
Barium nitrate	Ba(NO <sub>3</sub> ) <sub>2</sub>	$4.64 \times 10^{-3}$
Barium selenate	BaSeO <sub>4</sub>	$3.40 \times 10^{-8}$
Barium sulfate	BaSO <sub>4</sub>	$1.08 \times 10^{-10}$
Barium sulfite	BaSO <sub>3</sub>	$5.0 \times 10^{-10}$
Beryllium hydroxide	Be(OH) <sub>2</sub>	$6.92 \times 10^{-22}$
Bismuth arsenate	BiAsO <sub>4</sub>	$4.43 \times 10^{-10}$
Bismuth iodide	BiI	$7.71 \times 10^{-19}$
Cadmium arsenate	Cd <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub>	$2.2 \times 10^{-33}$
Cadmium carbonate	CdCO <sub>3</sub>	$1.0 \times 10^{-12}$
Cadmium fluoride	CdF <sub>2</sub>	$6.44 \times 10^{-3}$
Cadmium hydroxide	Cd(OH) <sub>2</sub>	$7.2 \times 10^{-15}$
Cadmium iodate	Cd(IO <sub>3</sub> ) <sub>2</sub>	$2.5 \times 10^{-8}$
Cadmium oxalate trihydrate	CdC <sub>2</sub> O <sub>4</sub> × 3H <sub>2</sub> O	$1.42 \times 10^{-8}$
Cadmium phosphate	Cd <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	$2.53 \times 10^{-33}$
Cadmium sulfide	CdS	$1 \times 10^{-27}$
Caesium perchlorate	CsClO <sub>4</sub>	$3.95 \times 10^{-3}$
Caesium periodate	CsIO <sub>4</sub>	$5.16 \times 10^{-6}$
Calcium carbonate (calcite)	CaCO <sub>3</sub>	$3.36 \times 10^{-9}$
Calcium carbonate (aragonite)	CaCO <sub>3</sub>	$6.0 \times 10^{-9}$

Calcium fluoride	CaF <sub>2</sub>	3.45×10 <sup>-11</sup>
Calcium hydroxide	Ca(OH) <sub>2</sub>	5.02×10 <sup>-6</sup>
Calcium iodate	Ca(IO <sub>3</sub> ) <sub>2</sub>	6.47×10 <sup>-6</sup>
Calcium iodate hexahydrate	Ca(IO <sub>3</sub> ) <sub>2</sub> ×6H <sub>2</sub> O	7.10×10 <sup>-7</sup>
Calcium molybdate	CaMoO <sub>4</sub>	1.46×10 <sup>-8</sup>
Calcium oxalate monohydrate	CaC <sub>2</sub> O <sub>4</sub> ×H <sub>2</sub> O	2.32×10 <sup>-9</sup>
Calcium phosphate	Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	2.07×10 <sup>-33</sup>
Calcium sulfate	CaSO <sub>4</sub>	4.93×10 <sup>-5</sup>
Calcium sulfate dihydrate	CaSO <sub>4</sub> ×2H <sub>2</sub> O	3.14×10 <sup>-5</sup>
Calcium sulfate hemihydrate	CaSO <sub>4</sub> ×0.5H <sub>2</sub> O	3.1×10 <sup>-7</sup>
Cobalt(II) arsenate	Co <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub>	6.80×10 <sup>-29</sup>
Cobalt(II) carbonate	CoCO <sub>3</sub>	1.0×10 <sup>-10</sup>
Cobalt(II) hydroxide (blue)	Co(OH) <sub>2</sub>	5.92×10 <sup>-15</sup>
Cobalt(II) iodate dihydrate	Co(IO <sub>3</sub> ) <sub>2</sub> ×2H <sub>2</sub> O	1.21×10 <sup>-2</sup>
Cobalt(II) phosphate	Co <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	2.05×10 <sup>-35</sup>
Cobalt(II) sulfide (alpha)	CoS	5×10 <sup>-22</sup>
Cobalt(II) sulfide (beta)	CoS	3×10 <sup>-26</sup>
Copper(I) bromide	CuBr	6.27×10 <sup>-9</sup>
Copper(I) chloride	CuCl	1.72×10 <sup>-7</sup>
Copper(I) cyanide	CuCN	3.47×10 <sup>-20</sup>
Copper(I) hydroxide *	Cu <sub>2</sub> O	2×10 <sup>-15</sup>
Copper(I) iodide	CuI	1.27×10 <sup>-12</sup>
Copper(I) thiocyanate	CuSCN	1.77×10 <sup>-13</sup>
Copper(II) arsenate	Cu <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub>	7.95×10 <sup>-36</sup>
Copper(II) hydroxide	Cu(OH) <sub>2</sub>	4.8×10 <sup>-20</sup>
Copper(II) iodate monohydrate	Cu(IO <sub>3</sub> ) <sub>2</sub> ×H <sub>2</sub> O	6.94×10 <sup>-8</sup>
Copper(II) oxalate	CuC <sub>2</sub> O <sub>4</sub>	4.43×10 <sup>-10</sup>
Copper(II) phosphate	Cu <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	1.40×10 <sup>-37</sup>
Copper(II) sulfide	CuS	8×10 <sup>-37</sup>
Europium(III) hydroxide	Eu(OH) <sub>3</sub>	9.38×10 <sup>-27</sup>
Gallium(III) hydroxide	Ga(OH) <sub>3</sub>	7.28×10 <sup>-36</sup>
Iron(II) carbonate	FeCO <sub>3</sub>	3.13×10 <sup>-11</sup>
Iron(II) fluoride	FeF <sub>2</sub>	2.36×10 <sup>-6</sup>
Iron(II) hydroxide	Fe(OH) <sub>2</sub>	4.87×10 <sup>-17</sup>

Iron(II) sulfide	FeS	$8 \times 10^{-19}$
Iron(III) hydroxide	Fe(OH) <sub>3</sub>	$2.79 \times 10^{-39}$
Iron(III) phosphate dihydrate	FePO <sub>4</sub> ×2H <sub>2</sub> O	$9.91 \times 10^{-16}$
Lanthanum iodate	La(IO <sub>3</sub> ) <sub>3</sub>	$7.50 \times 10^{-12}$
Lead(II) bromide	PbBr <sub>2</sub>	$6.60 \times 10^{-6}$
Lead(II) carbonate	PbCO <sub>3</sub>	$7.40 \times 10^{-14}$
Lead(II) chloride	PbCl <sub>2</sub>	$1.70 \times 10^{-5}$
Lead(II) chromate	PbCrO <sub>4</sub>	$3 \times 10^{-13}$
Lead(II) fluoride	PbF <sub>2</sub>	$3.3 \times 10^{-8}$
Lead(II) hydroxide	Pb(OH) <sub>2</sub>	$1.43 \times 10^{-20}$
Lead(II) iodate	Pb(IO <sub>3</sub> ) <sub>2</sub>	$3.69 \times 10^{-13}$
Lead(II) iodide	PbI <sub>2</sub>	$9.8 \times 10^{-9}$
Lead(II) oxalate	PbC <sub>2</sub> O <sub>4</sub>	$8.5 \times 10^{-9}$
Lead(II) selenate	PbSeO <sub>4</sub>	$1.37 \times 10^{-7}$
Lead(II) sulfate	PbSO <sub>4</sub>	$2.53 \times 10^{-8}$
Lead(II) sulfide	PbS	$3 \times 10^{-28}$
Lithium carbonate	Li <sub>2</sub> CO <sub>3</sub>	$8.15 \times 10^{-4}$
Lithium fluoride	LiF	$1.84 \times 10^{-3}$
Lithium phosphate	Li <sub>3</sub> PO <sub>4</sub>	$2.37 \times 10^{-4}$
Magnesium ammonium phosphate	MgNH <sub>4</sub> PO <sub>4</sub>	$3 \times 10^{-13}$
Magnesium carbonate	MgCO <sub>3</sub>	$6.82 \times 10^{-6}$
Magnesium carbonate trihydrate	MgCO <sub>3</sub> ×3H <sub>2</sub> O	$2.38 \times 10^{-6}$
Magnesium carbonate pentahydrate	MgCO <sub>3</sub> ×5H <sub>2</sub> O	$3.79 \times 10^{-6}$
Magnesium fluoride	MgF <sub>2</sub>	$5.16 \times 10^{-11}$
Magnesium hydroxide	Mg(OH) <sub>2</sub>	$5.61 \times 10^{-12}$
Magnesium oxalate dihydrate	MgC <sub>2</sub> O <sub>4</sub> ×2H <sub>2</sub> O	$4.83 \times 10^{-6}$
Magnesium phosphate	Mg <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	$1.04 \times 10^{-24}$
Manganese(II) carbonate	MnCO <sub>3</sub>	$2.24 \times 10^{-11}$
Manganese(II) iodate	Mn(IO <sub>3</sub> ) <sub>2</sub>	$4.37 \times 10^{-7}$
Manganese(II) hydroxide	Mn(OH) <sub>2</sub>	$2 \times 10^{-13}$
Manganese(II) oxalate dihydrate	MnC <sub>2</sub> O <sub>4</sub> ×2H <sub>2</sub> O	$1.70 \times 10^{-7}$
Manganese(II) sulfide (pink)	MnS	$3 \times 10^{-11}$
Manganese(II) sulfide (green)	MnS	$3 \times 10^{-14}$
Mercury(I) bromide	Hg <sub>2</sub> Br <sub>2</sub>	$6.40 \times 10^{-23}$

Mercury(I) carbonate	Hg <sub>2</sub> CO <sub>3</sub>	3.6×10 <sup>-17</sup>
Mercury(I) chloride	Hg <sub>2</sub> Cl <sub>2</sub>	1.43×10 <sup>-18</sup>
Mercury(I) fluoride	Hg <sub>2</sub> F <sub>2</sub>	3.10×10 <sup>-6</sup>
Mercury(I) iodide	Hg <sub>2</sub> I <sub>2</sub>	5.2×10 <sup>-29</sup>
Mercury(I) oxalate	Hg <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	1.75×10 <sup>-13</sup>
Mercury(I) sulfate	Hg <sub>2</sub> SO <sub>4</sub>	6.5×10 <sup>-7</sup>
Mercury(I) thiocyanate	Hg <sub>2</sub> (SCN) <sub>2</sub>	3.2×10 <sup>-20</sup>
Mercury(II) bromide	HgBr <sub>2</sub>	6.2×10 <sup>-20</sup>
Mercury(II) hydroxide <a href="#"><u>**</u></a>	HgO	3.6×10 <sup>-26</sup>
Mercury(II) iodide	HgI <sub>2</sub>	2.9×10 <sup>-29</sup>
Mercury(II) sulfide (black)	HgS	2×10 <sup>-53</sup>
Mercury(II) sulfide (red)	HgS	2×10 <sup>-54</sup>
Neodymium carbonate	Nd <sub>2</sub> (CO <sub>3</sub> ) <sub>3</sub>	1.08×10 <sup>-33</sup>
Nickel(II) carbonate	NiCO <sub>3</sub>	1.42×10 <sup>-7</sup>
Nickel(II) hydroxide	Ni(OH) <sub>2</sub>	5.48×10 <sup>-16</sup>
Nickel(II) iodate	Ni(IO <sub>3</sub> ) <sub>2</sub>	4.71×10 <sup>-5</sup>
Nickel(II) phosphate	Ni <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	4.74×10 <sup>-32</sup>
Nickel(II) sulfide (alpha)	NiS	4×10 <sup>-20</sup>
Nickel(II) sulfide (beta)	NiS	1.3×10 <sup>-25</sup>
Palladium(II) thiocyanate	Pd(SCN) <sub>2</sub>	4.39×10 <sup>-23</sup>
Potassium hexachloroplatinate	K <sub>2</sub> PtCl <sub>6</sub>	7.48×10 <sup>-6</sup>
Potassium perchlorate	KClO <sub>4</sub>	1.05×10 <sup>-2</sup>
Potassium periodate	KIO <sub>4</sub>	3.71×10 <sup>-4</sup>
Praseodymium hydroxide	Pr(OH) <sub>3</sub>	3.39×10 <sup>-24</sup>
Radium iodate	Ra(IO <sub>3</sub> ) <sub>2</sub>	1.16×10 <sup>-9</sup>
Radium sulfate	RaSO <sub>4</sub>	3.66×10 <sup>-11</sup>
Rubidium perchlorate	RuClO <sub>4</sub>	3.00×10 <sup>-3</sup>
Scandium fluoride	ScF <sub>3</sub>	5.81×10 <sup>-24</sup>
Scandium hydroxide	Sc(OH) <sub>3</sub>	2.22×10 <sup>-31</sup>
Silver(I) acetate	AgCH <sub>3</sub> COO	1.94×10 <sup>-3</sup>
Silver(I) arsenate	Ag <sub>3</sub> AsO <sub>4</sub>	1.03×10 <sup>-22</sup>
Silver(I) bromate	AgBrO <sub>3</sub>	5.38×10 <sup>-5</sup>
Silver(I) bromide	AgBr	5.35×10 <sup>-13</sup>
Silver(I) carbonate	Ag <sub>2</sub> CO <sub>3</sub>	8.46×10 <sup>-12</sup>

Silver(I) chloride	AgCl	$1.77 \times 10^{-10}$
Silver(I) chromate	Ag <sub>2</sub> CrO <sub>4</sub>	$1.12 \times 10^{-12}$
Silver(I) cyanide	AgCN	$5.97 \times 10^{-17}$
Silver(I) iodate	AgIO <sub>3</sub>	$3.17 \times 10^{-8}$
Silver(I) iodide	AgI	$8.52 \times 10^{-17}$
Silver(I) oxalate	Ag <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	$5.40 \times 10^{-12}$
Silver(I) phosphate	Ag <sub>3</sub> PO <sub>4</sub>	$8.89 \times 10^{-17}$
Silver(I) sulfate	Ag <sub>2</sub> SO <sub>4</sub>	$1.20 \times 10^{-5}$
Silver(I) sulfite	Ag <sub>2</sub> SO <sub>3</sub>	$1.50 \times 10^{-14}$
Silver(I) sulfide	Ag <sub>2</sub> S	$8 \times 10^{-51}$
Silver(I) thiocyanate	AgSCN	$1.03 \times 10^{-12}$
Strontium arsenate	Sr <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub>	$4.29 \times 10^{-19}$
Strontium carbonate	SrCO <sub>3</sub>	$5.60 \times 10^{-10}$
Strontium fluoride	SrF <sub>2</sub>	$4.33 \times 10^{-9}$
Strontium iodate	Sr(IO <sub>3</sub> ) <sub>2</sub>	$1.14 \times 10^{-7}$
Strontium iodate monohydrate	Sr(IO <sub>3</sub> ) <sub>2</sub> ×H <sub>2</sub> O	$3.77 \times 10^{-7}$
Strontium iodate hexahydrate	Sr(IO <sub>3</sub> ) <sub>2</sub> ×6H <sub>2</sub> O	$4.55 \times 10^{-7}$
Strontium oxalate	SrC <sub>2</sub> O <sub>4</sub>	$5 \times 10^{-8}$
Strontium sulfate	SrSO <sub>4</sub>	$3.44 \times 10^{-7}$
Thallium(I) bromate	TlBrO <sub>3</sub>	$1.10 \times 10^{-4}$
Thallium(I) bromide	TlBr	$3.71 \times 10^{-6}$
Thallium(I) chloride	TlCl	$1.86 \times 10^{-4}$
Thallium(I) chromate	Tl <sub>2</sub> CrO <sub>4</sub>	$8.67 \times 10^{-13}$
Thallium(I) hydroxide	Tl(OH) <sub>3</sub>	$1.68 \times 10^{-44}$
Thallium(I) iodate	TlIO <sub>3</sub>	$3.12 \times 10^{-6}$
Thallium(I) iodide	TlI	$5.54 \times 10^{-8}$
Thallium(I) thiocyanate	TlSCN	$1.57 \times 10^{-4}$
Thallium(I) sulfide	Tl <sub>2</sub> S	$6 \times 10^{-22}$
Tin(II) hydroxide	Sn(OH) <sub>2</sub>	$5.45 \times 10^{-27}$
Yttrium carbonate	Y <sub>2</sub> (CO <sub>3</sub> ) <sub>3</sub>	$1.03 \times 10^{-31}$
Yttrium fluoride	YF <sub>3</sub>	$8.62 \times 10^{-21}$
Yttrium hydroxide	Y(OH) <sub>3</sub>	$1.00 \times 10^{-22}$
Yttrium iodate	Y(IO <sub>3</sub> ) <sub>3</sub>	$1.12 \times 10^{-10}$
Zinc arsenate	Zn <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub>	$2.8 \times 10^{-28}$

Zinc carbonate	ZnCO <sub>3</sub>	1.46×10 <sup>-10</sup>
Zinc carbonate monohydrate	ZnCO <sub>3</sub> ×H <sub>2</sub> O	5.42×10 <sup>-11</sup>
Zinc fluoride	ZnF	3.04×10 <sup>-2</sup>
Zinc hydroxide	Zn(OH) <sub>2</sub>	3×10 <sup>-17</sup>
Zinc iodate dihydrate	Zn(IO <sub>3</sub> ) <sub>2</sub> ×2H <sub>2</sub> O	4.1×10 <sup>-6</sup>
Zinc oxalate dihydrate	ZnC <sub>2</sub> O <sub>4</sub> ×2H <sub>2</sub> O	1.38×10 <sup>-9</sup>
Zinc selenide	ZnSe	3.6×10 <sup>-26</sup>
Zinc selenite monohydrate	ZnSe×H <sub>2</sub> O	1.59×10 <sup>-7</sup>
Zinc sulfide (alpha)	ZnS	2×10 <sup>-25</sup>
Zinc sulfide (beta)	ZnS	3×10 <sup>-23</sup>