

## Solubility Product Constants at 25°C

Compound	Formula	$K_{sp}$	Notes
Aluminum hydroxide	$\text{Al}(\text{OH})_3$	$3 \times 10^{-34}$	
Barium carbonate	$\text{BaCO}_3$	$5.0 \times 10^{-9}$	
Barium chromate	$\text{BaCrO}_4$	$2.1 \times 10^{-10}$	
Barium hydroxide	$\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$	$3 \times 10^{-4}$	
Barium iodate	$\text{Ba}(\text{IO}_3)_2$	$1.57 \times 10^{-9}$	
Barium oxalate	$\text{BaC}_2\text{O}_4$	$1 \times 10^{-6}$	
Barium sulfate	$\text{BaSO}_4$	$1.1 \times 10^{-10}$	
Cadmium carbonate	$\text{CdCO}_3$	$1.8 \times 10^{-14}$	
Cadmium hydroxide	$\text{Cd}(\text{OH})_2$	$4.5 \times 10^{-15}$	
Cadmium oxalate	$\text{CdC}_2\text{O}_4$	$9 \times 10^{-8}$	
Cadmium sulfide	$\text{CdS}$	$1 \times 10^{-27}$	
Calcium carbonate	$\text{CaCO}_3$	$4.5 \times 10^{-9}$	Calcite
	$\text{CaCO}_3$	$6.0 \times 10^{-9}$	Aragonite
Calcium fluoride	$\text{CaF}_2$	$3.9 \times 10^{-11}$	
Calcium hydroxide	$\text{Ca}(\text{OH})_2$	$6.5 \times 10^{-6}$	
Calcium oxalate	$\text{CaC}_2\text{O}_4 \cdot \text{H}_2\text{O}$	$1.7 \times 10^{-9}$	
Calcium sulfate	$\text{CaSO}_4$	$2.4 \times 10^{-5}$	
Cobalt(II) carbonate	$\text{CoCO}_3$	$1.0 \times 10^{-10}$	
Cobalt(II) hydroxide	$\text{Co}(\text{OH})_2$	$1.3 \times 10^{-15}$	
Cobalt(II) sulfide	$\text{CoS}$	$5 \times 10^{-22}$	$\alpha$
	$\text{CoS}$	$3 \times 10^{-26}$	$\beta$
Copper(I) bromide	$\text{CuBr}$	$5 \times 10^{-9}$	
Copper(I) chloride	$\text{CuCl}$	$1.9 \times 10^{-7}$	
Copper(I) hydroxide*	$\text{Cu}_2\text{O}^*$	$2 \times 10^{-15}$	
Copper(I) iodide	$\text{CuI}$	$1 \times 10^{-12}$	
Copper(I) thiocyanate	$\text{CuSCN}$	$4.0 \times 10^{-14}$	
Copper(II) hydroxide	$\text{Cu}(\text{OH})_2$	$4.8 \times 10^{-20}$	
Copper(II) sulfide	$\text{CuS}$	$8 \times 10^{-37}$	
Iron(II) carbonate	$\text{FeCO}_3$	$2.1 \times 10^{-11}$	
Iron(II) hydroxide	$\text{Fe}(\text{OH})_2$	$4.1 \times 10^{-15}$	
Iron(II) sulfide	$\text{FeS}$	$8 \times 10^{-19}$	
Iron(III) hydroxide	$\text{Fe}(\text{OH})_3$	$2 \times 10^{-39}$	
Lanthanum iodate	$\text{La}(\text{IO}_3)_3$	$1.0 \times 10^{-11}$	
Lead carbonate	$\text{PbCO}_3$	$7.4 \times 10^{-14}$	
Lead chloride	$\text{PbCl}_2$	$1.7 \times 10^{-5}$	
Lead chromate	$\text{PbCrO}_4$	$3 \times 10^{-13}$	
Lead hydroxide	$\text{PbO}^\dagger$	$8 \times 10^{-16}$	Yellow
	$\text{PbO}^\ddagger$	$5 \times 10^{-16}$	Red
Lead iodide	$\text{PbI}_2$	$7.9 \times 10^{-9}$	
Lead oxalate	$\text{PbC}_2\text{O}_4$	$8.5 \times 10^{-9}$	$\mu = 0.05$
Lead sulfate	$\text{PbSO}_4$	$1.6 \times 10^{-8}$	
Lead sulfide	$\text{PbS}$	$3 \times 10^{-28}$	
Magnesium ammonium phosphate	$\text{MgNH}_4\text{PO}_4$	$3 \times 10^{-13}$	
Magnesium carbonate	$\text{MgCO}_3$	$3.5 \times 10^{-8}$	

Compound	Formula	$K_{sp}$	Notes
Magnesium hydroxide	$Mg(OH)_2$	$7.1 \times 10^{-12}$	
Manganese carbonate	$MnCO_3$	$5.0 \times 10^{-10}$	
Manganese hydroxide	$Mn(OH)_2$	$2 \times 10^{-13}$	
Manganese sulfide	$MnS$	$3 \times 10^{-11}$	Pink
	$MnS$	$3 \times 10^{-14}$	Green
Mercury(I) bromide	$Hg_2Br_2$	$5.6 \times 10^{-23}$	
Mercury(I) carbonate	$Hg_2CO_3$	$8.9 \times 10^{-17}$	
Mercury(I) chloride	$Hg_2Cl_2$	$1.2 \times 10^{-18}$	
Mercury(I) iodide	$Hg_2I_2$	$4.7 \times 10^{-29}$	
Mercury(I) thiocyanate	$Hg_2(SCN)_2$	$3.0 \times 10^{-20}$	
Mercury(II) hydroxide	$HgO^\ddagger$	$3.6 \times 10^{-26}$	
Mercury(II) sulfide	$HgS$	$2 \times 10^{-53}$	Black
	$HgS$	$5 \times 10^{-54}$	Red
Nickel carbonate	$NiCO_3$	$1.3 \times 10^{-7}$	
Nickel hydroxide	$Ni(OH)_2$	$6 \times 10^{-16}$	
Nickel sulfide	$NiS$	$4 \times 10^{-20}$	$\alpha$
	$NiS$	$1.3 \times 10^{-25}$	$\beta$
Silver arsenate	$Ag_3AsO_4$	$6 \times 10^{-23}$	
Silver bromide	$AgBr$	$5.0 \times 10^{-13}$	
Silver carbonate	$Ag_2CO_3$	$8.1 \times 10^{-12}$	
Silver chloride	$AgCl$	$1.82 \times 10^{-10}$	
Silver chromate	$Ag_2CrO_4$	$1.2 \times 10^{-12}$	
Silver cyanide	$AgCN$	$2.2 \times 10^{-16}$	
Silver iodate	$AgIO_3$	$3.1 \times 10^{-8}$	
Silver iodide	$AgI$	$8.3 \times 10^{-17}$	
Silver oxalate	$Ag_2C_2O_4$	$3.5 \times 10^{-11}$	
Silver sulfide	$Ag_2S$	$8 \times 10^{-51}$	
Silver thiocyanate	$AgSCN$	$1.1 \times 10^{-12}$	
Strontium carbonate	$SrCO_3$	$9.3 \times 10^{-10}$	
Strontium oxalate	$SrC_2O_4$	$5 \times 10^{-8}$	
Strontium sulfate	$SrSO_4$	$3.2 \times 10^{-7}$	
Thallium(I) chloride	$TlCl$	$1.8 \times 10^{-4}$	
Thallium(I) sulfide	$Tl_2S$	$6 \times 10^{-22}$	
Zinc carbonate	$ZnCO_3$	$1.0 \times 10^{-10}$	
Zinc hydroxide	$Zn(OH)_2$	$3.0 \times 10^{-16}$	Amorphous
Zinc oxalate	$ZnC_2O_4$	$8 \times 10^{-9}$	
Zinc sulfide	$ZnS$	$2 \times 10^{-25}$	$\alpha$
	$ZnS$	$3 \times 10^{-23}$	$\beta$

Most of these data are taken from A. E. Martell and R. M. Smith, *Critical Stability Constants*, Vol. 3–6, New York: Plenum, 1976–1989. In most cases, the values are for infinite dilution (ionic strength  $\mu = 0.0$ ) and the temperature 25°C.