

Table 17.3 Solubilities of Ionic Compounds* aq = aqueous (dissolves in water); s = solid (does not dissolve in water)

Ions	Acetate	Bromide	Carbonate	Chlorate	Chloride	Fluoride	Hydrogen Carbonate	Hydroxide	Iodide	Nitrate	Nitrite	Phosphate	Sulfate	Sulfide	Sulfite
Aluminum	s	aq		aq	aq	s		s	—	aq		s	aq	—	
Ammonium	aq	aq	aq	aq	aq	aq	aq	—	aq	aq	aq	aq	aq	aq	aq
Barium	aq	aq	s	aq	aq	s		aq	aq	aq	aq	s	s	—	s
Calcium	aq	aq	s	aq	aq	s		s	aq	aq	aq	s	s	—	s
Cobalt(II)	aq	aq	s	aq	aq	—		s	aq	aq		s	aq	s	s
Copper(II)	aq	aq	s	aq	aq	aq		s		aq		s	aq	s	
Iron(II)	aq	aq	s		aq	s		s	aq	aq		s	aq	s	s
Iron(III)	—	aq			aq	s		s	aq	aq		s	aq	—	
Lead(II)	aq	s	s	aq	s	s		s	s	aq	aq	s	s	s	s
Lithium	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	s	aq	aq	aq
Magnesium	aq	aq	s	aq	aq	s		s	aq	aq	aq	s	aq	—	aq
Nickel	aq	aq	s	aq	aq	aq		s	aq	aq		s	aq	s	s
Potassium	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq
Silver	s	s	s	aq	s	aq		—	s	aq	s	s	s	s	s
Sodium	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq
Zinc	aq	aq	s	aq	aq	aq		s	aq	aq		s	aq	s	s

Polyatomic Ions Chart

Formula	Name	Formula	Name
NH_4^+	Ammonium	CrO_4^{2-}	Chromate
NH_3	Ammonia	$\text{Cr}_2\text{O}_7^{2-}$	Dichromate
$\text{C}_2\text{H}_3\text{O}_2^-$	Acetate	MnO_4^-	Permanganate
CH_3COO^-	Acetate	MnO_4^{2-}	Manganate
CN^-	Cyanide	NO_2^-	Nitrite
CO_3^{2-}	Carbonate	NO_3^-	Nitrate
HCO_3^-	Bicarbonate	OH^-	Hydroxide
$\text{C}_2\text{O}_4^{2-}$	Oxalate	PO_4^{3-}	Phosphate
ClO^-	Hypochlorite	SCN^-	Thiocyanate
ClO_2^-	Chlorite	$\text{Fe}(\text{CN})_6^{3-}$	Ferricyanide
ClO_3^-	Chlorate	SO_3^{2-}	Sulfite
ClO_4^-	Perchlorate	SO_4^{2-}	Sulfate
$\text{S}_2\text{O}_3^{2-}$	Thiosulfate	HSO_4^-	Hydrogen sulfate
BrO^-	Hypobromite	IO_3^-	Iodate
AsO_2^{3-}	Arsenite	SeO_4^{2-}	Selenate
BrO_3^-	Bromate	HSO_3^-	Hydrogen sulfite