

Table of Solubilities of Ionic Compounds

Key: **aq** = will dissolve in water **s** = insoluble in water **dash (-)** = unstable in water **blank space** = lack of data

ions	C ₂ H ₃ O ₂ ¹⁻	Br ¹⁻	CO ₃ ²⁻	ClO ₃ ¹⁻	Cl ¹⁻	F ¹⁻	HCO ₃ ¹⁻	OH ¹⁻	I ¹⁻	NO ₃ ¹⁻	NO ₂ ¹⁻	PO ₄ ³⁻	SO ₄ ²⁻	S ²⁻	SO ₃ ²⁻
Al ³⁺	s	aq		aq	aq	s		s	-	aq		s	aq	-	
NH ₄ ⁺	aq	aq	aq	aq	aq	aq	aq	-	aq	aq	aq	aq	aq	aq	aq
Ba ²⁺	aq	aq	s	aq	aq	s		aq	aq	aq	aq	s	s	-	s
Ca ²⁺	aq	aq	s	aq	aq	s		s	aq	aq	aq	s	s	-	s
Co ²⁺	aq	aq	s	aq	aq	-		s	aq	aq		s	aq	s	s
Cu ²⁺	aq	aq	s	aq	aq	aq		s		aq		s	aq	s	
Fe ²⁺	aq	aq	s		aq	s		s	aq	aq		s	aq	s	s
Fe ³⁺		aq			aq	s		s	aq	aq		s	aq	-	
Pb ²⁺	aq	s	s	aq	s	s		s	s	aq	aq	s	s	s	s
Li ⁺	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	s	aq	aq	aq
Mg ²⁺	aq	aq	s	aq	aq	s		s	aq	aq	aq	s	aq	-	aq
Ni ²⁺	aq	aq	s	aq	aq	aq		s	aq	aq		s	aq	s	s
K ⁺	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq
Ag ⁺	s	s	s	aq	s	aq		s	s	aq	s	s	s	s	s
Na ⁺	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq	aq
Zn ²⁺	aq	aq	s	aq	aq	aq		s	aq	aq		s	aq	s	s

General Solubility Rules

Usually Soluble	Exceptions	Usually Insoluble	Exceptions
NH ₄ ⁺		CO ₃ ²⁻	NH ₄ ⁺ , Li ⁺ , Na ⁺ , K ⁺
Alkali metal salts	Some Li ⁺	PO ₄ ³⁻	NH ₄ ⁺ , Na ⁺ , K ⁺
NO ₃ ¹⁻		OH ¹⁻	Ba ²⁺ , Li ⁺ , Na ⁺ , K ⁺
Cl ¹⁻ Br ¹⁻ I ¹⁻	Pb ²⁺ Ag ⁺	S ²⁻	NH ₄ ⁺ , Li ⁺ , Na ⁺ , K ⁺
C ₂ H ₃ O ₂ ¹⁻	Al ³⁺ Ag ⁺		
ClO ₃ ¹⁻			
SO ₄ ²⁻	Ba ²⁺ Ca ²⁺ Pb ²⁺ Ag ⁺		