

Solubility of Some Ionic Compounds in Water

Always Soluble

Alkali metals =	Li ⁺ , Na ⁺ , K ⁺ , Rb ⁺ , Cs ⁺
Ammonium =	NH ₄ ⁺
Acetate =	C ₂ H ₃ O ₂ ⁻
Chlorate =	ClO ₃ ⁻
Nitrate =	NO ₃ ⁻
Perchlorate =	ClO ₄ ⁻

Memorize the Always Soluble Ones!

These are the only ones you need to memorize. Others will be provided as needed.

AAA
CNP

Generally Soluble

Cl⁻, Br⁻, I⁻ Except when with: Ag⁺, Pb²⁺, Hg₂²⁺

AP-H

F⁻ Except when with: Ca²⁺, Ba²⁺, Sr²⁺, Pb²⁺, Mg²⁺

CBS-PM

Sulfate = SO₄²⁻ Except when with: Ca²⁺, Ba²⁺, Sr²⁺, Pb²⁺

CBS-P

Generally Insoluble

O²⁻, OH⁻ Except when with: Alkali metals and NH₄⁺

AA

Somewhat soluble: Ca²⁺, Ba²⁺, Sr²⁺

CBS

CO₂²⁻, CO₃²⁻

S²⁻, SO₃²⁻

PO₄³⁻

CrO₄²⁻, Cr₂O₄²⁻

Except when with: Alkali metals and NH₄⁺

AA

Insoluble = forms precipitate
Soluble = dissolves in water (aqueous)

Acronyms to help with memorizing the rules.