

AP Chemistry

Solubility Guidelines for Salts in Water

Memorize these!

1. Common salts containing the alkali metal ions and the NH_4^+ ion are soluble.
2. All common nitrates, chlorates, perchlorates and acetates are soluble.
3. Most chloride, bromide and iodide salts are soluble **except** those of silver, mercury(I) and lead.
4. Most sulfate salts are soluble **except** those of barium, strontium, calcium, lead, and mercury.
5. Except for those in Rule 1, carbonates, hydroxides, oxides, sulfites, sulfides and phosphates and chromates are insoluble.

Some fine points

- Most hydroxides are only slightly soluble. The hydroxides of barium, calcium and strontium are marginally soluble.
- Most fluorides and most silver salts are insoluble.