

Solubility rules:

1. All common compounds from Group I both as ammonium ions are soluble.
2. All nitrates, acetates, and chlorates are soluble.
3. All binary compounds of the halogens (other than F) with metals are soluble, except those of Ag, Hg(I), and Pb. Pb halides are soluble in the hot water.)
  - AgCl
4. All sulfates are soluble, except those of barium, strontium, calcium, lead, silver, and mercury (I). The latter three are slightly soluble.
  - CaSO<sub>4</sub>
  - BaSO<sub>4</sub>
5. Except for rule 1, carbonates, hydroxides, oxides, silicates, and phosphates are insoluble:
  - Zn(OH)<sub>2</sub>
  - Al(OH)<sub>3</sub>
  - Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>
  - CuO
  - CaCO<sub>3</sub>
6. Sulfides are insoluble except for calcium, barium, strontium, magnesium, sodium, potassium, and ammonium :
  - ZnS
  - CuS