**Solubility Rules**

You must memorize the rules highlighted in yellow. You will not be provided with a solubility table on the AP test and are expected to know the first three rules.

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| **SOLUBLE COMPOUNDS** | **EXCEPTIONS** |
| Compounds containing alkali metal ions (Li+, Na+, K+, Rb+, Cs+) | none |
| Compounds containing the ammonium ion (NH4+) | none |
| Nitrates (NO3-), acetates (C2H3O2-), chlorates (ClO3-), and bicarbonates (HCO3-) | none |
| Halides (Cl-, Br-, I-) | Ag+, Hg2+2, Pb+2 |
| Sulfates (SO4-2) | Ag+, Ba+2, Hg2+2, Pb+2 |
| **INSOLUBLE COMPOUNDS** | **EXCEPTIONS** |
| Sulfides (S-2) | Alkali metal ions, NH4+, and Ca+2, Sr+2, Ba+2 |
| Carbonates (CO3-2) | Alkali metals ions, and NH4+ |
| Phosphates (PO4-3) | Alkali metals ions, and NH4+ |
| Hydroxides (OH-) | Alkali metals ions, and NH4+, and Ca+2, Sr+2, Ba+2 |