

# Solubility Rules

**Knowing whether compounds are **soluble** or **insoluble** from these rules tells you if a **PRECIPITATE** forms... which tells you **IF** a **Double-Replacement Reaction** happened or not!**



# Solubility Rules

- 1) Salts of ammonium and alkali metals are always **SOLUBLE**
- 2) All chlorides, bromides, and iodides are **SOLUBLE** except when combined with Ag, Hg, and Pb which are **INSOLUBLE**
- 3) Chlorates, acetates, and nitrates are **SOLUBLE**
- 4) Sulfates are **SOLUBLE** except with Ca, Sr, Ba, Ag, Hg, and Pb which are **INSOLUBLE**



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5) Phosphates, carbonates, and sulfides are **INSOLUBLE** except ammonium and alkali metal compounds are **SOLUBLE**

6) All metallic oxides are **INSOLUBLE** except ammonium and alkali metal compounds are **SOLUBLE**

7) All hydroxides are **INSOLUBLE** except ammonium, alkali metal compounds, and group 2A from Ca down are **SOLUBLE**

