

General solubility rules for salts	Some common strong electrolytes		
<u>Soluble</u> • All nitrates (NO_3^-), bicarbonates (HCO_3^-) and chlorates (ClO_3^-) • All acetates ($\text{C}_2\text{H}_3\text{O}_2^-$ or CH_3COO^-) except Ag^+ • All halides (Cl^-, Br^-, I^-) except Ag^+, Pb^{2+}, Hg_2^{2+} • All sulfates (SO_4^{2-}) except Ag^+, Ca^{2+}, Sr^{2+}, Ba^{2+}, Pb^{2+}, Hg_2^{2+} • All alkali metal ion (Na^+, K^+, Rb^+, Li^+, Cs^+), NH_4^+ salts • All common inorganic acids	<u>Acids</u> • HCl • HNO_3 • H_2SO_4 • HClO_4	<u>Bases</u> • NaOH • KOH • $\text{Ba}(\text{OH})_2$ • Etc	<u>Salts</u> all soluble salts with a few exceptions, see below.
<u>Insoluble</u> • All hydroxides (OH^-) except alkali metal ions, NH_4^+, Ba^{2+} • All chromates (CrO_4^{2-}), carbonates (CO_3^{2-}), phosphates (PO_4^{3-}), and oxalates ($\text{C}_2\text{O}_4^{2-}$) except alkali metals and NH_4^+ • All sulfides (S^{2-}) except Na^+, K^+, NH_4^+, Mg^{2+}, Ca^{2+}, Ba^{2+}	<u>Some common weak electrolytes</u>		
	<u>Acids</u> • $\text{HC}_2\text{H}_3\text{O}_2$ • HF • HNO_2 • H_3PO_4 • $\text{H}_2\text{C}_2\text{O}_4$ • H_2SO_3 • H_2CO_3 • H_2S	<u>Bases</u> • NH_3 • $\text{Mg}(\text{OH})_2$ • $\text{Ca}(\text{OH})_2$ • $\text{Fe}(\text{OH})_3$ • etc	<u>Salts/other</u> • HgCl_2 • $\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2$ • H_2O • etc

The table above is a more complete table for your reference.
The table below contains the rules I expect you to memorize.

A portion of the solubility table	Some common strong electrolytes		
<u>Soluble</u> - Nitrates (NO_3^-) - Halides (Cl^-, Br^-, I^-) except Ag^+, Pb^{2+} - All alkali metal ion (Na^+, K^+, Rb^+, Li^+, Cs^+), NH_4^+ salts - All common inorganic acids	<u>Acids</u> HCl HNO_3 H_2SO_4 HClO_4	<u>Bases</u> NaOH KOH $\text{Ba}(\text{OH})_2$	<u>Salts</u> all soluble salts with a few exceptions
<u>Insoluble</u> - Hydroxides (OH^-) - Carbonates (CO_3^{2-}) - Sulfides (S^{2-}) (Don't forget that alkali metal ion and NH_4^+ salts are <u>always</u> soluble.)	<u>Some common weak electrolytes</u>		
	<u>Acids</u> All other acids	<u>Bases</u> NH_3 - All other bases	<u>Salts/other</u> H_2O