

# SOLUBILITY RULES FOR SALTS

Chem 100

SOLUBLE				
Cation	Anion			
Li <sup>+</sup>	NO <sub>3</sub> <sup>-</sup>			
Na <sup>+</sup>	C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>-</sup>			
K <sup>+</sup>				
NH <sub>4</sub> <sup>+</sup>				
SOLUBLE		INSOLUBLE		
		Except with these cations:		
		Ag <sup>+</sup>	Hg <sub>2</sub> <sup>2+</sup>	Pb <sup>2+</sup>
	Cl <sup>-</sup>			
	Br <sup>-</sup>			
	I <sup>-</sup>			
SOLUBLE		INSOLUBLE		
		Except with these cations:		
		Ag <sup>+</sup>	Ca <sup>2+</sup>	Ba <sup>2+</sup>
	SO <sub>4</sub> <sup>2-</sup>			

Salts containing any of these ions are soluble in water, regardless of what the counterion is. (Counterion is the ion of opposite charge in the salt).

If a salt does not contain any of the ions listed in the two columns above, assume that the salt is INSOLUBLE in water.