SOLUBILITY TABLE

This is the solubility table that is available for use within ALEKS. Feel free to have this table with you when you take the assessment or when you are in learning mode in ALEKS.

Even so, you will save a lot of time (now and later in UT Chem classes) if you commit these two solubility rules to memory:

- Compounds with Group 1 cations and NH_4^+ are soluble
- Compounds with nitrates are soluble (NO_3^-)

[-] Solubility of ionic compounds in water

		anions										
		chloride Cl^-	bromide Br^-	iodide I^-	oxide O^{2-}	sulfide S^{2-}	hydroxide OH^-	carbonate CO_3^{2-}	chromate CrO_4^{2-}	sulfate SO_4^{2-}	acetate $CH_3CO_2^-$	nitrate NO_3^-
cations	NH_4^+	yes	yes	yes	--	yes	yes	yes	yes	yes	yes	yes
	Na^+	yes	yes	yes	rxn	yes	yes	yes	yes	yes	yes	yes
	K^+	yes	yes	yes	rxn	yes	yes	yes	yes	yes	yes	yes
	Mg^{2+}	yes	yes	yes	NO	rxn	NO	slight	--	yes	yes	yes
	Ca^{2+}	yes	yes	yes	rxn	rxn	slight	NO	slight	slight	yes	yes
	Ba^{2+}	yes	yes	yes	yes	yes	yes	NO	NO	NO	yes	yes
	Mn^{2+}	yes	yes	yes	NO	NO	NO	NO	--	yes	yes	yes
	Fe^{2+}	yes	yes	yes	NO	NO	NO	NO	--	yes	yes	yes
	Fe^{3+}	yes	yes	--	NO	--	NO	--	NO	yes	NO	yes
	Cu^{2+}	yes	yes	--	NO	NO	NO	NO	NO	yes	yes	yes
	Ni^{2+}	yes	yes	yes	NO	NO	NO	NO	NO	yes	yes	yes
	Cd^{2+}	yes	yes	yes	NO	NO	NO	NO	NO	yes	yes	yes
	Zn^{2+}	yes	yes	yes	NO	NO	NO	NO	yes	yes	yes	yes
	Sn^{2+}	yes	yes	slight	NO	NO	NO	--	--	yes	yes	--
	Hg^{2+}	yes	slight	NO	NO	NO	NO	NO	NO	rxn	yes	yes
	Pb^{2+}	slight	slight	NO	NO	NO	NO	NO	NO	NO	yes	yes
	Ag^+	NO	NO	NO	NO	NO	--	NO	NO	slight	slight	yes

yes	=	soluble (s > 10 g/L)
slight	=	slightly soluble (1 g/L < s < 10 g/L)
NO	=	insoluble (s < 1 g/L)
--	=	no data
rxn	=	compound reacts with water