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**Chemistry: *Chemical Word Equations***

*Directions: Write a balanced chemical equation for each of the word equations below.*

1. aqueous sodium chloride reacts with aqueous lead (II) nitrate to yield a lead (II) chloride precipitate and

aqueous sodium nitrate

2NaCl(aq) + Pb(NO3)2(aq) 🡪 PbCl2(s) + 2NaNO3(aq)

1. aqueous barium nitrate reacts with sulfuric acid [H2SO4(aq)] to yield a barium sulfate precipitate and nitric acid [HNO3(aq)]

Ba(NO3)2(aq) + H2SO4(aq) 🡪 BaSO4(s) + 2HNO3(aq)

1. silver nitrate reacts in solution with potassium chromate to yield a silver chromate precipitate and soluble potassium nitrate

2Ag(NO3)(aq) + K2(CrO4)(aq) 🡪 Ag2(CrO4)(s) + 2KNO3(aq)

1. solid calcium carbonate reacts with hydrochloric acid [HCl(aq)] to yield aqueous calcium chloride, carbon dioxide gas, and liquid water

CaCO3(s) + 2HCl(aq) 🡪 CaCl2(aq) + CO2(g) + H2O(l)

1. aqueous zinc chloride reacts with dihydrogen monosulfide gas to yield a zinc sulfide precipitate and hydrochloric acid

ZnCl2(aq) + H2S(g) 🡪 ZnS(s) + 2HCl(aq)

1. magnesium nitrate reacts in solution with potassium hydroxide to yield a magnesium hydroxide precipitate and soluble potassium nitrate

Mg(NO3)2(aq) + 2KOH(aq) 🡪 Mg(OH)2(s) + 2KNO3(aq)

1. solid aluminum hydroxide reacts with nitric acid to yield soluble aluminum nitrate and liquid water
2. aqueous lead (IV) nitrate reacts with aqueous sodium sulfate to yield a lead (IV) sulfate precipitate and soluble sodium nitrate
3. aqueous sodium hydroxide reacts with carbon dioxide gas to yield soluble sodium carbonate and liquid water
4. solid magnesium oxide reacts with hydrochloric acid to yield a solution of magnesium chloride and liquid water
5. solid zinc metal reacts with sulfuric acid to yield aqueous zinc sulfate and hydrogen gas
6. solid ferric oxide reacts with solid aluminum metal to yield solid aluminum oxide and solid iron metal