

BALANCING CHEMICAL EQUATIONS (USING COMPOUND NAMES)

- WRITE THE FORMULA FOR EACH MATERIAL CORRECTLY AND THEN BALANCE THE EQUATION.
- ASSUME IONIC REACTANTS ARE IN AQUEOUS FORM. PREDICT WHICH PRODUCTS IN SUCH REACTIONS WOULD FORM PRECIPITATE AND INDICATE IN YOUR BALANCED EQUATION.
- THERE ARE SOME REACTIONS THAT REQUIRE COMPLETION.
- FORMULAS FOR COMMON ACIDS CAN BE FOUND ON PAGE 133.

1. sulfur trioxide (SO_3) and water combine to make sulfuric acid
2. lead II nitrate and sodium iodide react to make lead iodide and sodium nitrate.
3. calcium fluoride and sulfuric acid make calcium sulfate and hydrogen fluoride (Hydrofluoric acid)
4. calcium carbonate will come apart when you heat it to leave calcium oxide and carbon dioxide (CO_2)
5. ammonia gas (NH_3) when it is pressed into water will make ammonium hydroxide.
6. sodium hydroxide neutralizes carbonic acid – a double replacement reaction
7. zinc sulfide and oxygen become zinc oxide and sulfur.
8. lithium oxide and water make lithium hydroxide
9. aluminum hydroxide and sulfuric acid neutralize to make water and aluminum sulfate.
10. sulfur burns in oxygen to make sulfur dioxide (SO_2)
11. barium hydroxide and sulfuric acid make water and barium sulfate.
12. aluminum sulfate and calcium hydroxide become aluminum hydroxide and calcium sulfate.
13. copper metal and silver nitrate react to form silver metal and copper II nitrate.
14. sodium metal and chlorine react to make sodium chloride.
15. calcium phosphate and sulfuric acid make calcium sulfate and phosphoric acid.
16. phosphoric acid reacts with sodium hydroxide
17. propane (C_3H_8) burns (with oxygen) (a combustion reaction – see section 7.10)
18. zinc and copper II sulfate yield zinc sulfate and copper metal
19. sulfuric acid reacts with zinc
20. steam (H_2O) reacts with methane (CH_4) to get hydrogen and carbon dioxide
21. calcium oxide and aluminum make aluminum oxide and calcium
22. chlorine gas and sodium bromide yield sodium chloride and bromine gas



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