

Types of Chemical Reactions - Word Problems

1) Iron pipes are strongly attacked and corroded by hydrosulfuric acid. This problem is very serious for Alberta sour natural gas wells. An "iron (II)" compound is one of the products.

Word Equation: _____

Balanced Eq'n: _____

Total/Net Ionic: _____

Rxn Type: _____

2) Iron rusts when in contact with moisture and oxygen in the air. This costs millions of dollars each year. Iron (III) hydroxide is the only product.

Word Equation: _____

Balanced Eq'n: _____

Rxn Type: _____

3) Coal (simplest formula, C_9H_6) used to be used to heat homes in Canada. If mixed with lots of oxygen it can be made to undergo complete combustion.

Word Equation: _____

Balanced Eq'n: _____

Rxn Type: _____

4) Paracelsus (1493-1541) was the first person to observe hydrogen gas when he made it by adding iron to sulfuric acid. An "iron (II)" is one of the products made.

Word Equation: _____

Balanced Eq'n: _____

Total/Net Ionic: _____

Rxn Type: _____

5) What happens if you accidentally mixed some copper (II) nitrate with hydrosulfuric acid?

Word Equation: _____

Balanced Eq'n: _____

Total/Net Ionic: _____

Rxn Type: _____

6) One substance that causes permanent hard water is dissolved magnesium sulfate. Soap (sodium stearate) will react with this substance to precipitate bathtub-ring.

Word Equation: _____

Balanced Eq'n: _____

Total/Net Ionic: _____

Rxn Type: _____

7) Iron pyrites/Fool's Gold (FeS_2) must be burned to make iron (III) oxide and sulfur dioxide in order to isolate the iron from it's ore. FeS_2 is a iron (II) / iron (III) hybrid.

Word Equation: _____

Balanced Eq'n: _____

Rxn Type: _____

8) A dilute solution of boric acid can be used to neutralize ammonium hydroxide if it is splashed into a person's eye

Word Equation: _____

Balanced Eq'n: _____

Total/Net Ionic: _____

Rxn Type: _____

9) One way to prepare ammonia for use in a chemistry lab is to react solid magnesium nitride with water. Magnesium hydroxide is also a product of this reaction.

Word Equation: _____

Balanced Eq'n: _____

Rxn Type: _____

10) Joseph Priestly (1733-1804) was the first to decompose cinnabar (mercury (II) sulfide).

Word Equation: _____

Balanced Eq'n: _____

Rxn Type: _____

11) Milk of magnesia (magnesium hydroxide) is used to settle upset stomachs due to excess stomach acid (hydrochloric acid).

Word Equation: _____

Balanced Eq'n: _____

Total/Net Ionic: _____

Rxn Type: _____

12) Phosphoric acid, which is used to make fertilizers, is made by reacting rock phosphorus (calcium phosphate) with sulfuric acid.

Word Equation: _____

Balanced Eq'n: _____

Total/Net Ionic: _____

Rxn Type: _____

13) A freshly scraped piece of aluminum reacts with oxygen in air to form a protective coating.

Word Equation: _____

Balanced Eq'n: _____

Rxn Type: _____

14) Freshly scraped aluminum will also react with very hot water.

Word Equation: _____

Balanced Eq'n: _____

Rxn Type: _____

15) Phosphorus will spontaneously combust in air to make tetraphosphorus decaoxide.

Word Equation: _____

Balanced Eq'n: _____

Rxn Type: _____

16) Calcium nitrate is mixed with sodium phosphate during a chemistry lab.

Word Equation: _____

Balanced Eq'n: _____

Total/Net Ionic: _____

Rxn Type: _____

17) Ammonium sulphide is mixed with potassium bromide during a different chemistry lab.

Word Equation: _____

Balanced Eq'n: _____

Total/Net Ionic: _____

Rxn Type: _____

18) An oxy-acetylene torch burns acetylene (C_2H_2) to produce enough heat to melt steel when welding.

Word Equation: _____

Balanced Eq'n: _____

Rxn Type: _____

19) What happens if you add a silver nitrate solution to a nickel (III) bromide solution?

Word Equation: _____

Balanced Eq'n: _____

Total/Net Ionic: _____

Rxn Type: _____

20) In 1784, Leblanc dissolved some soda ash (sodium carbonate) and reacted it with solid slaked lime (calcium hydroxide). What did he find?

Word Equation: _____

Balanced Eq'n: _____

Total/Net Ionic: _____

Rxn Type: _____