

NAME \_\_\_\_\_

HAVE EXCESS FUN WITH THIS LIMITING REACTANT ACTIVITY (on your own paper) !!!

- 1) 10.0 grams of sodium phosphate is added to 10.0 grams of silver nitrate.
- A) What is the LR? **Silver nitrate**  
What is the ER? **Sodium phosphate**  
(Remember: for LR and ER, convert each to moles and compare to the "recipe")
- B) What mass of insoluble product forms? **8.21 grams**  
(Remember: this is a stoich problem)
- C) What mass of ER reacts? **3.21 grams**  
(Remember: this is another stoich problem)
- D) What mass of ER remains unreacted after the reaction is complete? **6.79 grams**  
(Remember: this is simply a subtraction problem)
- 2) 20.0 grams of nickel (III) oxide is added to 20.0 liters of carbon dioxide gas at STP.
- A) What is the LR? **Nickel(III) oxide**  
What is the ER? **Carbon dioxide**
- B) What mass of product forms? **35.8 grams**
- C) What mass or volume of ER reacts? **8.1 liters**  
(Note: Answer should be in grams if nickel (III) oxide is excess. Answer should be in L if carbon dioxide is excess.)
- D) What mass or volume of ER remains unreacted after the reaction is complete?  
(Note: Answer should be in grams if nickel (III) oxide is excess. Answer should be in L if carbon dioxide is excess.) **11.9 liters**
- 3) 50.0 mL of 2.5 M phosphoric acid are added to 1.00 gram of sodium carbonate.
- A) What is the LR? **Sodium carbonate**  
What is the ER? **Phosphoric acid**
- B) What volume of gaseous product forms? **.21 liters**
- C) What mass or volume of ER reacts? **2.5 ml**  
(Note: Answer should be in grams if sodium carbonate is excess. Answer should be in mL if phosphoric acid is excess.)
- D) What mass or volume of ER remains unreacted after the reaction is complete?  
(Note: Answer should be in grams if sodium carbonate is excess. Answer should be in mL if phosphoric acid is excess.) **47.5 ml**