

Theoretical and Percent Yield Worksheet

1. Given the following equation:



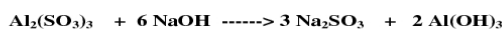
- a) Balance the equation.
- b) Determine the theoretical yield of KCl if you start with 34.5 grams of NH₃.
- c) Starting with 34.5 g of NH₃, and you isolate 76.4 g of Pt(NH₃)₂Cl₂, what is the percent yield?

2. Given the following equation:



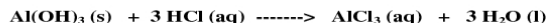
- a) If 49.0 g of H₃PO₄ is reacted with excess KOH, determine the percent yield of K₃PO₄ if you isolate 49.0 g of K₃PO₄.

3. Given the following equation:



- a) If you start with 389.4 g of Al₂(SO₄)₃ and you isolate 212.4 g of Na₂SO₃, what is your percent yield for this reaction?

4. Given the following equation:



- a) If you start with 50.3 g of Al(OH)₃ and you isolate 39.5 g of AlCl₃, what is the percent yield?

5. Given the following equation:



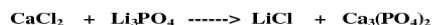
- a) Balance the equation.
- b) Determine the theoretical yield of KCl if you start with 34.5 g of K₂CO₃.
- c) Starting with 34.5 g of K₂CO₃, and you isolate 3.4 g of H₂O, what is the percent yield?

6. Given the following equation:



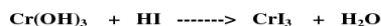
- a) If 98.0 g of H₂SO₄ is reacted with excess Ba(OH)₂, determine the percent yield of BaSO₄ if you isolate 213.7 g of BaSO₄.

7. Given the following equation:



- a) If you start with 82.4 g of CaCl₂ and you isolate 82.4 g of Ca₃(PO₄)₂, what is your percent yield for this reaction?

8. Given the following equation:



- a) If you start with 50.3 g of Cr(OH)₃ and you isolate 39.5 g of CrI₃, what is the percent yield?