

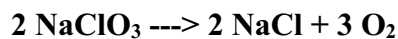
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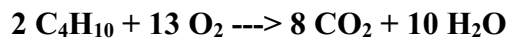
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Stoichiometry Mass, Volume, Particle Practice

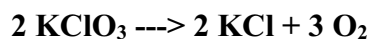
Directions: Use the equations below to answer the following mole to mole questions. You MUST show your work with units and chemical formulas to receive full credit.



1. If you have 68.22 g of NaClO_3 what is the theoretical yield in liters of oxygen?
2. If you produced 114.25 g NaCl how many grams of NaClO_3 did you decompose?
3. How many particles of NaClO_3 are needed to produce 68.30 L oxygen?



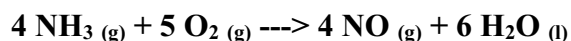
4. You have 35.25 L of C_4H_{10} what is the theoretical yield in grams of carbon dioxide?
5. You have 68.75 g of C_4H_{10} what is the theoretical yield in grams of water?
6. If you produced 25.25 liters of carbon dioxide how many molecules of oxygen did you use?
7. What is the theoretical yield in grams of water when 25.34 grams of C_4H_{10} is consumed?



8. How many grams of KClO_3 are decomposed if you produce 8.24×10^{25} molecules of oxygen?

9. How many grams of KCl are produced with 16.25 liters of oxygen?

10. How many formula units of KClO_3 are decomposed if you produce 6.95 g of KCl ?



11. If you react 9.25 g of ammonia (NH_3) with excess oxygen how many grams of water are produced?

12. If you react 44.28 L of oxygen with excess ammonia (NH_3) how many liters of NO are produced?

13. You produce 28.14 g of water how many molecules of ammonia did you consume?

14. If 12.39 L of oxygen are consumed, what is the theoretical yield in grams of water?

Stoichiometry Mass, Volume Particle Practice Answers: All answers are rounded to the correct number of significant figures.

1. 21.54 L O_2	8. 1120 g KClO_3
2. 208.09 g NaClO_3	9. 36.05 g KCl
3. 1.223×10^{24} part NaClO_3	10. 5.55×10^{22} F.U. KCl
4. 277.0 g CO_2	11. 14.67 g H_2O
5. 106.5 g H_2O	12. 47.36 g NO
6. 1.103×10^{24} mls O_2	13. 6.267×10^{23} mls NH_3
7. 39.27 g H_2O	14. 11.96 g H_2O