

Key Q's and Vocab – Formulas

Vocab:

1. **Percent Composition by Mass** – correspondence between the number of atoms present in a compound and the percentages by mass that they represent
2. **Empirical formula** – simplest whole number ratio of elements in a compound based upon percent composition by mass
3. **Molecular formula** – NOT the simplest whole number ratio of elements in a compound. Represents the actual molecular formula of a compound
4. **Purity** – can test for purity based upon experimental analysis of percent composition data and compare it to known values

Key Questions:

1. If we were to use only percent composition by mass data, explain why we will not be able to determine the purity of a sample of glucose if the contaminant is formaldehyde.
2. An empirical formula can be the same as a molecular formula. Explain and give an example where this could occur.
3. Substance A and substance B both have the same empirical formula but different chemical properties. Explain how this could happen.