Definitions and Concepts for WJEC (Eduqas) Chemistry GCSE

Topic 3 - Chemical Formulae, Equations and Amount of Substance

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*Definitions in **bold** are for higher tier only*

Definitions have been taken, or modified from the WJEC (Eduqas) Specification for GCSE Chemistry, C410, Version 3 January 2019

Avogadro's constant: **The number of atoms, molecules or ions in a mole of a given substance.**

Conservation of mass: A law which states that no atoms are lost or made during a chemical reaction so the mass of the products equals the mass of the reactants.

Empirical formula: Simplest whole number ratio of atoms of each element in a compound.

Ion: An atom or molecule with an electric charge due to the loss or gain of electrons. A positive ion is formed when an atom loses electrons, and a negative ion is formed when an atom gains electrons.

Ionic compound: Chemical compound formed of oppositely charged ions, held together by strong electrostatic forces.

Limiting reactant: **The reactant that is completely used up since it limits the amount of products formed.**

Molar volume: **The volume occupied by one mole of gaseous molecules.**

Molar volume at RTP: **The volume occupied by one mole of molecules of any gas at room temperature and pressure (RTP). The molar volume at RTP is 24 dm^3.**

Mole: **The unit for amount of substance. The symbol for the unit mole is mol.**

Molecular formula: The actual ratio of atoms of each element present in a compound.

Relative formula mass: The sum of the relative atomic masses of the atoms in the numbers shown in the formula. Numerically equal to the mass of one mole of a substance in grams.

State symbols: The symbols used in chemical equations to denote the states of the chemicals reacting: (s) - solid, (l) - liquid, (g) - gas, (aq) - aqueous solution.