



Chemistry Practice

Worksheet (1) Stiochiometry questions

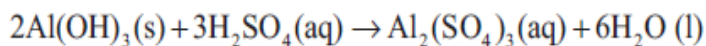
Name: _____

Grade: 9 IB : _____

Answer the following questions:

Question 1:

0.600 mol of aluminium hydroxide is mixed with 0.600 mol of sulfuric acid, and the following reaction occurs:



(a) Determine the limiting reactant. [2]

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(b) Calculate the mass of $\text{Al}_2(\text{SO}_4)_3$ produced. [2]

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(c) Determine the amount (in mol) of excess reactant that remains. [1]

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Question 2:

- (a) An organic compound, **X**, with a molar mass of approximately 88 g mol^{-1} contains 54.5 % carbon, 36.3 % oxygen and 9.2 % hydrogen by mass.

- (i) Distinguish between the terms *empirical formula* and *molecular formula*. [2]

Empirical formula:

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Molecular formula:

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- (ii) Determine the empirical formula of **X**. [2]

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- (iii) Determine the molecular formula of **X**. [1]

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