

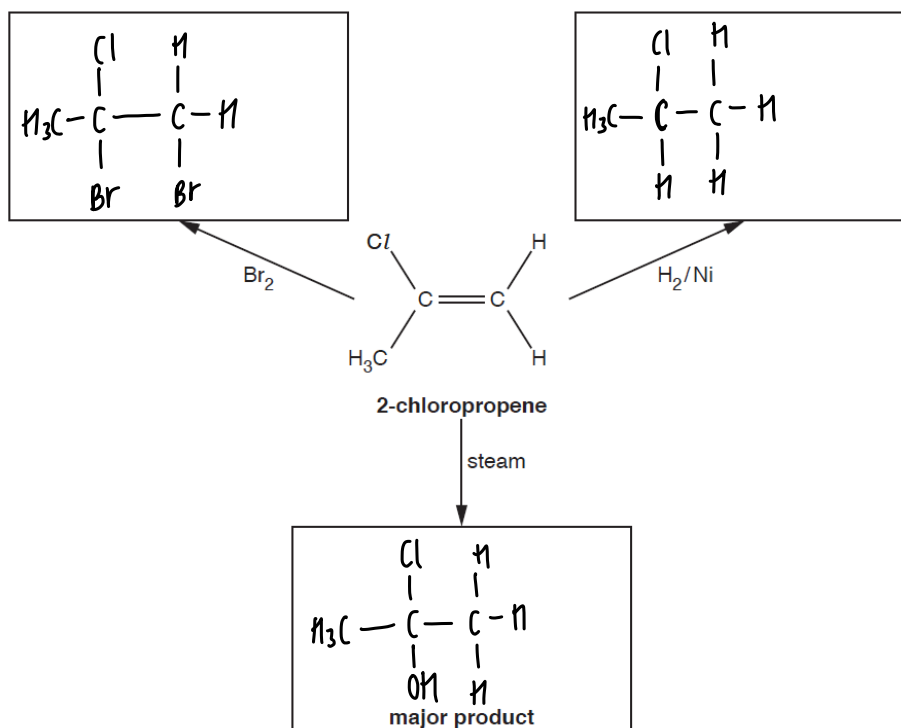
AS Level Chemistry A
H032/01 Breadth in chemistry

Question Set 8

1. This question is about 2-chloropropene, C_3H_5Cl . \rightarrow $C \begin{matrix} Cl \\ | \\ =C \\ | \\ -C \end{matrix}$

(a) Three reactions of 2-chloropropene are shown in the flowchart below.

(i) Complete the flowchart to show the organic products formed in the reactions.



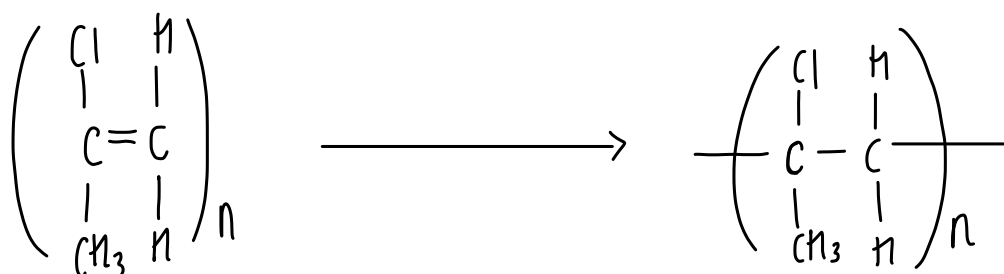
(ii) The reaction of 2-chloropropene with steam requires a catalyst. [3]

State a suitable catalyst for this reaction. *concentrated sulfuric acid* [1]

(b) 2-Chloropropene can be polymerised to form poly(2-chloropropene).

(i) Write a balanced equation for the formation of this polymer.

The equation should include the structure of the repeat unit of the polymer. [2]



(ii) After their useful life, waste polymers can be disposed of by combustion. [2]

State **one** particular problem with disposal of poly(2-chloropropene) by combustion.

produces chlorine gas which is toxic [1]

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