2.25 Alcohols, Carboxylic Acids and Polymers: 10-minute Pack

Total Marks

AQA 8464 · Calculator allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Alcohols are a homologous series of organic compounds.

(a) Define the term 'homologous series'. **(2)**

(b) The table shows the first four alcohols. Complete the table by giving the missing name or molecular formula. **(3)**

Carbon atoms	Name	Molecular formula
1	methanol	CH_3OH
2	(i)	C_2H_5OH
3	propan-1-ol	(ii)
4	butan-1-ol	C_4H_9OH

(c) Name the functional group found in all alcohols, and give its formula. **(2)**

(Total for Question 1 is 7 marks)

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Mark scheme · 2.25 Alcohols, Carboxylic Acids and Polymers: 10-minute Pack

Question 1

(a) a family/series of compounds that all share the same general formula, oe **B1**

(a) each successive member differs from the last by a CH_2 unit, showing a gradual trend in physical properties and similar chemical properties, oe **B1**

(a) Answer: A homologous series is a family of compounds with the same general formula, in which each member differs from the next by a CH_2 unit, and which shows a gradual trend in physical properties and similar chemical properties.

(b) (i) ethanol **B1**

(b) (ii) C_3H_7OH cao **B1**

(b) general formula for the alcohols correctly stated as $C_nH_{2n+1}OH$ **B1**

(b) Answer: (i) ethanol; (ii) C_3H_7OH; general formula $C_nH_{2n+1}OH$

(c) hydroxyl group **B1**

(c) -OH cao **B1**

(c) Answer: Hydroxyl group, -OH.

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