



Oxford Cambridge and RSA

GCSE Chemistry B (Twenty First Century Science)

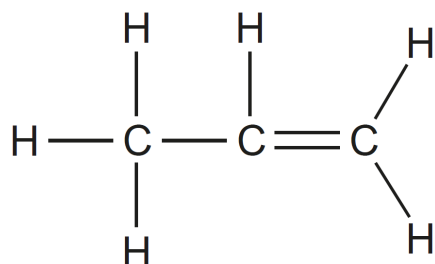
J258/03 Breadth in chemistry (Higher Tier)

Question Set 31

1 Drinking cups can be made from poly(propene) or aluminium.

(a) Poly(propene) is made from propene.

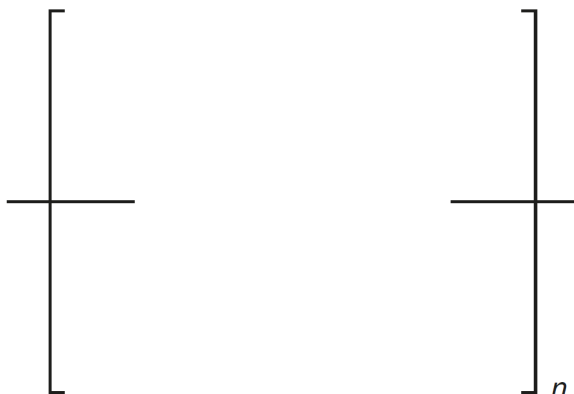
The displayed formula for propene is shown below:



(i) What is the empirical formula of propene?

[1]

(ii) Draw the structure for a repeating unit of poly(propene).



[2]

(b) Aluminium melts at 660 °C. Poly(propene) melts at 130 °C.

Hot water from a kettle has a temperature of between 90 °C and 100 °C.

James says,



Aluminium drinking cups are better than poly(propene) cups. They are less likely to go soft when hot water is added from a kettle.

Do you agree with James?

Yes

No

Explain your answer.

[1]

(c) Which statements about polymers are **true**, and which are **false**?

Tick (✓) **one** box in each row.

	True	False
When monomers form condensation polymers, a small molecule is also formed.	<input type="checkbox"/>	<input type="checkbox"/>
DNA is a polymer formed from nucleotides.	<input type="checkbox"/>	<input type="checkbox"/>
To make a condensation polymer, each monomer needs only one functional group.	<input type="checkbox"/>	<input type="checkbox"/>

[3]

Total Marks for Question Set 31: 7

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