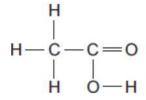
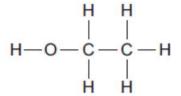
0 1 Compounds A and B are both colourless liquids.

Compound A

Compound B





A test tube contains a colourless liquid, which could be either compound A or compound B.

Describe a simple chemical test to show which compound, A or B, is in the test tube.

TOP TIP:

Credit will be given to any test that will work, but you must state the test and the correct result.

add any named carbonate or hydrogen carbonate Result: A will effervesce (carbon dioxide) or B will not effervesce. or

add a named (magnesium, aluminium, zinc, iron or tin) metal [1] Result: A will effervesce (hydrogen), B will not [1]

add an acid-base indicator [1] Test:

Result: credit any acid colour for that indicator eg for universal indicator allow red, yellow or orange [1] or

add an alcohol (+ acid catalyst) [1] Result: sweet or fruity smell of esters [1]

Compounds A and B react to produce compound C and compound D.

Compound A

Compound B

Compound C

0 2

What is the formula of compound **D**?

[1 mark]

Compound C is an ester.

Name compound C.

[1 mark]

[1 mark]

ethyl ethanoate

State **one** use of esters.

any one from:

perfumes

flavourings solvents

plasticisers

allow any correct use of esters

(Total 5 marks)

End