**Additional questions: Identifying organic substances**

**1.** Describe tests to distinguish between the following colourless solutions using only water and litmus paper.

1-aminohexane

hexanoic acid

hexan-2-ol

cyclohexane

**2.** Describe and write equations for distinguishing between the following colourless solutions using aqueous Na2CO3 only

aminoethane

butanoic acid

heptan-1-ol

**3.** Three colourless organic solutions that have no labels on their bottles are known to be:

• propanoic acid

• ethanol

• but-2-ene.

Discuss how each of these samples can be identified using **both acidified** potassium permanganate and acidified potassium dichromate.

In your answer, you must include

* the reagent used
* observations
* name of the products
* chemical equations that show the species reacting and products formed.

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