

How can we distinguish between different types of alcohol?

PROCEDURE

1. Using a microspatula add one scoop of potassium dichromate(VI) to Well F1.
2. Add about 2 cm³ of 1 mol dm⁻³ sulfuric acid to the potassium dichromate(VI) and stir until it is fully dissolved. **Use this solution** for the rest of the experiments.
3. Put **10 drops** of the potassium dichromate(VI) solution into each of Wells A1 to A4.
4. a) Using a Propette, add 2 drops of water to Well A1. This is your control.
b) Now add 2 drops of alcohol to Wells A2 to A4 as shown in the table below. Make sure you use a fresh Propette each time a different alcohol is added.

WELL NUMBER	ALCOHOL
A2	butan-1-ol
A3	butan-2-ol
A4	2-methylpropan-2-ol

5. Add hot water to a plastic ice-cream tub to a depth of about 1 cm. Place your Comboplate in the tub and leave for at least 10 minutes.

RESULTS

Name of alcohol	Type of alcohol	OBSERVATIONS
butan-1-ol		
butan-2-ol		
2-methylpropan-2-ol		

CONCLUSIONS

1. Which alcohol is **not oxidised**? _____
2. Explain how you can tell. _____

3. Explain why this alcohol is not oxidised. _____