



AS PRACTICAL 17

Preparation of propanal (Grid)

		CPAC Criteria											
		other	1	2a	2b	2c	2d	3a	3b	4a	4b	5a	5b
Procedure	Followed instructions carefully and independently												
	Carries out technique of distillation successfully												
	Manages time and equipment successfully												
Safety	Assessed risks during practical, taking appropriate safety measures												
	Used appropriate safety equipment during the practical												
Results	Obtained product that gave a silver mirror with Toll's reagent												
	Decent yield												
Questions	Q1 – correct equation for main reaction												
	Q2 – understands what the Tollen's result means												
	Q3 – correct equation for Tollen's reaction												
	Q4 – explains what anti-bumping granules are from												
	Q5 – explains why propanal has lower boiling point than propan-1-ol												
	Q6 – can work percentage yield												

	Good evidence	Working towards	Description
1			Correctly follows instructions to carry out the experimental techniques or procedures.
2a			Correctly uses appropriate instrumentation, apparatus and materials (including ICT) to carry out investigative activities, experimental techniques and procedures with minimal assistance or prompting.
2b			Carries out techniques or procedures methodically, in sequence and in combination, identifying practical issues and making adjustments when necessary.
2c			Identifies and controls significant quantitative variables where applicable, and plans approaches to take account of variables that cannot readily be controlled.
2d			Selects appropriate equipment and measurement strategies in order to ensure suitably accurate results.
3a			Identifies hazards and assesses risks associated with these hazards when carrying out experimental techniques and procedures in the lab or field.
3b			Uses appropriate safety equipment and approaches to minimise risks with minimal prompting.
4a			Makes accurate observations relevant to the experimental or investigative procedure.
4b			Obtains accurate, precise and sufficient data for experimental and investigative procedures and records this methodically using appropriate units and conventions.
5a			Uses appropriate software and/or tools to process data, carry out research and report findings.
5b			Sources of information are cited demonstrating that research has taken place, supporting planning and conclusions.