OCR
Oxford Cambridge and RSA

Applied Science

OCR GCE Unit G624 Chemicals for a purpose

Unit Recording Sheet

Please read the instructions printed at the end of this form. **One** of these sheets, suitably completed, should be attached to the assessed work of **each** candidate.

Unit Title	**Chemicals for a purpose**	**Unit Code**	**G624**	**Session**	**June**	**Year**	**2**	**0**		
Centre Name					**Centre Number**					
Candidate Name					**Candidate Number**					

Evidence: The candidate needs to provide evidence of their knowledge, understanding and investigation into chemicals for a purpose.

Criteria			Teacher Comment	Mark	Page No.
AO1(a).1: Candidate will give **four** examples of chemical compounds (two inorganic and two organic) stating for each compound its • name • formula • structures; **[0 1]**	AO1(a).2: candidate will give **four** examples of chemical compounds (two inorganic and two organic), stating for each compound its • name • appropriate formula (e.g. displayed) • structures with a simple explanation of the bonding involved; the data will be presented systematically and research will show some evidence of selection; **[2 3]**	AO1(a).3: candidate will give **four** examples of chemical compounds (two inorganic and two organic) stating for each compound its • name • appropriate formula • structures to include a detailed explanation of the bonding involved; the candidate's research will show that relevant information has been selected and suitably referenced. **[4 5]**			
AO1(b).1: For each of the **four** chosen compounds, candidate will present clearly the • uses • properties; **[0 1]**	AO1(b).2: for each of the **four** compounds, candidate will show how the • uses depend upon the properties; information will be clearly presented and research will show some evidence of selection; **[2 3]**	AO1(b).3: for each of the **four** compounds, candidate will show how the • properties depend upon structure • uses depend upon the properties using appropriate scientific terminology; Information will be clearly presented and the candidate's research will show that relevant information has been selected and suitably referenced. **[4 5]**			

Criteria			Teacher Comment	Mark	Page No.
AO1(c).1: Candidate will produce an account of the chemistry of **two** compounds, one of which is made from oil; the account will include • physical properties • chemical properties • preparation • uses; evidence of some scientific terminology used with corrected punctuation and grammar; **[0 1 2 3 4 5]**	AO1(c).2: candidate will produce a detailed account of the chemistry of **two** compounds, one of which is made from oil; the account will include • physical properties • chemical properties • preparation • uses • relevant reactions; appropriate scientific terminology will be used, mainly correct punctuation and grammar, and show that research information has been selected; **[6 7 8]**	AO1(c).3: candidate will produce a detailed account of the chemistry of **two** compounds, one of which is made from oil; the account will include • physical properties • chemical properties • preparation • uses • structure of the compounds; • explanation of relevant reactions; the appropriate use of scientific terminology with correct spelling, punctuation and grammar and Information selected is clearly presented and suitably referenced. **[9 10 11]**			
AO2(a).1: Candidate will show evidence of completion of simple calculations of actual and theoretical yields; **[0 1]**	AO2(a).2: candidate will show evidence of completion of calculating % yields and calculating costs of producing chemicals; **[2]**	AO2(a).3: candidate will show evidence of completing to the appropriate degree of accuracy a number of simple and complex calculations using researched data on costs of chemicals and data obtained from at least one of the preparations. **[3]**			
AO2(b).1: Candidate will give an outline of **one** industrial process in which a catalyst is used; the outline will include • the role of the catalyst • raw materials • products • conditions and the usefulness of the product will be stated; **[0 1 2]**	AO2(b).2: candidate will give a detailed description of **one** industrial process in which a catalyst is used; the description will include • the role of the catalyst • raw materials • products • conditions • chemical equations; energy costs, waste products, availability and sustainability of raw materials will be considered; **[3 4]**	AO2(b).3: candidate will give a fully researched, detailed account of **one** industrial process in which a catalyst is used; the account will include • a description and explanation of the role of the catalyst • raw materials • products • conditions • chemical equations; an understanding of the social, economic and environmental impact of the product will be discussed. **[5 6 7]**			
AO3(a).1: Candidate will research the compound chosen and present evidence of the completion of a workable method with a safe risk assessment for the laboratory preparation of an • inorganic compound [1] • organic compound [1]; **[0 1 2]**	AO3(a).2: candidate will research the compound and present evidence of the confident completion of a detailed method with a safe risk assessment for the laboratory preparation of an • inorganic compound [2] • organic compound [2]; evidence of the completion of some basic analysis should be included; **[3 4]**	AO3(a).3: candidate will show suitable selected relevant research and present evidence of the accurate completion of a detailed method with a safe risk assessment for the laboratory preparation of an • inorganic compound [3] • organic compound [3] with evidence of purification and analysis included; the risk assessment must be detailed and accurate. **[5 6]**			

Criteria			Teacher Comment	Mark	Page No.
AO3(b).1: Candidate will present observations and results for each preparation using tables and diagrams; candidate has suitably processed some results for • inorganic compound [1] • organic compound [2]; **[0 1 2 3]**	AO3(b).2: candidate will accurately record observations, measurements and results for each preparation; candidate has processed results for • inorganic compound [2] • organic compound [3]; **[4 5]**	AO3(b).3: candidate will accurately record all observations, measurements and results for each preparation and analysis; candidate will have accurately processed the results for • inorganic compound [3] • organic compound [4]. **[6 7]**			
AO3(c).1: Candidate will evaluate the preparations and will indicate how the yield could be increased for • inorganic compound [1] • organic compound [1]; **[0 1 2]**	AO3(c).2: candidate will evaluate the preparations and analysis; candidate will state workable suggestions about increasing the yield for • inorganic compound [2] • organic compound [2]; **[3 4]**	AO3(c).3: candidate will evaluate systematically the preparations and analysis and give workable suggestions for increasing the yield for • inorganic compound [3] • organic compound [3]. **[5 6]**			
			Total/50	**0**	

If this work is a re-sit, please tick		Session and Year of previous submission	Jan / June	**2**	**0**			Please tick to indicate this work has been standardised internally	

Please note: This form may be updated on an annual basis. The current version of this form will be available on the OCR website (www.ocr.org.uk).

Guidance on Completion of this Form

1 **One** sheet should be used for each candidate.
2 Please ensure that the appropriate boxes at the top of the form are completed.
3 Please enter *specific* page numbers where evidence can be found in the portfolio, and where possible, indicate to which part of the text in the mark band the evidence relates.
4 Circle the mark awarded for each strand of the marking criteria in the appropriate box and also enter the circled mark in the final column.
5 Add the marks for the strands together to give a total out of 50. Enter this total in the relevant box.