

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	Jan / 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 <ul style="list-style-type: none"> • name • formula • structures; <p style="text-align: right;">[0 1]</p>	AO1(a).2: candidate will give four examples of chemical compounds (two inorganic and two organic), stating for each compound its <ul style="list-style-type: none"> • 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; <p style="text-align: right;">[2 3]</p>	AO1(a).3: candidate will give four examples of chemical compounds (two inorganic and two organic) stating for each compound its <ul style="list-style-type: none"> • 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. <p style="text-align: right;">[4 5]</p>			
AO1(b).1: For each of the four chosen compounds, candidate will present clearly the <ul style="list-style-type: none"> • uses • properties; <p style="text-align: right;">[0 1]</p>	AO1(b).2: for each of the four compounds, candidate will show how the <ul style="list-style-type: none"> • uses depend upon the properties; information will be clearly presented and research will show some evidence of selection; <p style="text-align: right;">[2 3]</p>	AO1(b).3: for each of the four compounds, candidate will show how the <ul style="list-style-type: none"> • 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. <p style="text-align: right;">[4 5]</p>			

Criteria			Teacher Comment	Mark	Page No.
<p>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</p> <ul style="list-style-type: none"> • physical properties • chemical properties • preparation • uses; <p>evidence of some scientific terminology used with corrected punctuation and grammar;</p> <p style="text-align: right;">[0 1 2 3 4 5]</p>	<p>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</p> <ul style="list-style-type: none"> • physical properties • chemical properties • preparation • uses • relevant reactions; <p>appropriate scientific terminology will be used, mainly correct punctuation and grammar, and show that research information has been selected;</p> <p style="text-align: right;">[6 7 8]</p>	<p>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</p> <ul style="list-style-type: none"> • physical properties • chemical properties • preparation • uses • structure of the compounds; • explanation of relevant reactions; <p>the appropriate use of scientific terminology with correct spelling, punctuation and grammar and Information selected is clearly presented and suitably referenced.</p> <p style="text-align: right;">[9 10 11]</p>			
<p>AO2(a).1: Candidate will show evidence of completion of simple calculations of actual and theoretical yields;</p> <p style="text-align: right;">[0 1]</p>	<p>AO2(a).2: candidate will show evidence of completion of calculating % yields and calculating costs of producing chemicals;</p> <p style="text-align: right;">[2]</p>	<p>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.</p> <p style="text-align: right;">[3]</p>			
<p>AO2(b).1: Candidate will give an outline of one industrial process in which a catalyst is used; the outline will include</p> <ul style="list-style-type: none"> • the role of the catalyst • raw materials • products • conditions <p>and the usefulness of the product will be stated;</p> <p style="text-align: right;">[0 1 2]</p>	<p>AO2(b).2: candidate will give a detailed description of one industrial process in which a catalyst is used; the description will include</p> <ul style="list-style-type: none"> • the role of the catalyst • raw materials • products • conditions • chemical equations; <p>energy costs, waste products, availability and sustainability of raw materials will be considered;</p> <p style="text-align: right;">[3 4]</p>	<p>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</p> <ul style="list-style-type: none"> • a description and explanation of the role of the catalyst • raw materials • products • conditions • chemical equations; <p>an understanding of the social, economic and environmental impact of the product will be discussed.</p> <p style="text-align: right;">[5 6 7]</p>			
<p>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</p> <ul style="list-style-type: none"> • inorganic compound [1] • organic compound [1]; <p style="text-align: right;">[0 1 2]</p>	<p>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</p> <ul style="list-style-type: none"> • inorganic compound [2] • organic compound [2]; <p>evidence of the completion of some basic analysis should be included;</p> <p style="text-align: right;">[3 4]</p>	<p>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</p> <ul style="list-style-type: none"> • inorganic compound [3] • organic compound [3] <p>with evidence of purification and analysis included; the risk assessment must be detailed and accurate.</p> <p style="text-align: right;">[5 6]</p>			

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					
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).
A completed Centre Authentication form CCS160 **must** accompany the MS1 when it is sent to the moderator.

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.