

## G624: Chemicals for a Purpose – Sample Assignment D

<b>Unit Name:</b> Chemicals for a Purpose	<b>Unit Number:</b> G624
<b>Assignment Title:</b> Preparation of chosen product	<b>Assignment:</b> G624 Sample Assignment D
<b>Date Set:</b>	<b>Due Date:</b>
<b>Assessment Objective(s):</b> AO3	

### Vocational Brief:

Preparing chemical products is important both in large and small-scale manufacturing. It is important that the correct techniques are used and this depends on both the chemical and physical properties of the compound being prepared.

Organic preparations usually involve reflux or distillation techniques as the compounds are very often flammable and need to be extracted from the original reactants as reactions do not go to completion.

Inorganic compounds, however, are often formed using one-step procedures, followed by crystallisation to purify the product.

### Task:

The aim of this task is to safely prepare, purify and analyse two products, one organic and one inorganic. You should:

- check you have the instructions for each of your preparations
- identify hazards and carry out a risk assessment
- follow set procedures
- record any observations and measurements
- process and evaluate results.

**[ Max marks possible for this task: 19 ]**

### For AO3(a)

You do not need to rewrite the practical instructions, however, you should:

- complete full and workable risk assessments
- include a copy of the instructions you used
- check that your supervisor records how confidently you completed the work.

**For AO3(b)**

Your report includes:

- illustrations/diagrams clearly showing the procedures
- information on observations of each stage of your practicals
- all results, yields, etc. – recorded, processed and suitably presented.

**For AO3(c)**

Your report includes:

- a full evaluation of all the stages of your practical work
- information on the final yield.

For higher marks, explain:

- the % yield with suitable suggestions of improvement.

**Resources / Notes:**

- RSC practical activities
- Chemistry in Context Hill & Holman ISBN 0-17-448164-0