

G624: Chemicals for a Purpose – Sample Assignment A

Unit Name: Chemicals for a Purpose	Unit Number: G624
Assignment Title: Useful Inorganic Chemical Compounds	Assignment: G624 Sample Assignment A
Date Set:	Due Date:
Assessment Objective(s): AO1(a) (b) & (c)	

Vocational Brief:

Inorganic compounds are substances that do not contain carbon; they are not normally found in living things. However, carbonates and carbon dioxide are classified as inorganic. There are a huge number of inorganic compounds that form the basis of the vast chemical industry necessary for today's society. The structure of chemical compounds gives rise to their properties and their uses.

Sodium chloride (common salt) is not only important in keeping the traffic moving in icy conditions but also in flavouring our food.

Sulfuric acid is the highest tonnage industrial chemical produced in the UK. One of its main uses is in the production of fertilisers, it is also used in the production of other compounds including plasticisers, dyestuffs, explosives, silicate for toothpaste, adhesives, rubbers, edible oils, lubricants, and the production of food acids such as citric or lactic acid. The list is endless and these are only two inorganic compounds but there are hundreds more.

Task 1:

- AO1(a) & (b)

Your task is to choose **two** inorganic compounds and produce a report or a presentation.

For each compound, you should include the:

- name
- formula
- structure
- uses
- properties.

For higher marks, explain:

- how the uses depend on the properties
- how the properties depend on the structure.

Task 2:

- AO1(c)

You can choose the same compound or a different one.

Your task is to write an account of the:

- physical properties
- chemical properties
- relevant reactions
- method of preparing your chosen compound – a lab and industrial method would support higher marks
- uses
- structures.

Remember to present your work clearly. Include references and check your spelling, punctuation and grammar.

Resources:

- www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1202115622321
- www.hpa.org.uk