

Making Soluble Salts

- 1 *In this question you will be assessed on using good English, organising information clearly and using specialist terms where appropriate.*

Copper oxide is an insoluble base. Copper sulfate crystals can be made from copper oxide powder and dilute sulfuric acid.

Describe a method to make copper sulfate crystals from copper oxide and dilute sulfuric acid.

For the method you should include any equipment used.

The spelling must be almost faultless and the response written in a logical order. Some students like to do this question first to get it out of the way first. If you do this, watch the time carefully, because it's easy to get carried away.

(6 marks)

0 marks	Level 1 (1-2 marks)	Level 2 (3-4 marks)	Level 3 (5-6 marks)
No relevant content	There is a simple description of a laboratory procedure for obtaining copper sulfate.	There is a clear description of a laboratory procedure for obtaining copper sulfate from copper oxide and sulfuric acid that does not necessarily allow the procedure to be completed successfully by another person. Must include the warming of the solution and adding excess copper oxide	There is a detailed description of a laboratory procedure for obtaining copper sulfate from copper oxide and sulfuric acid that can be followed by another person. Must include the warming of the solution and adding excess copper oxide.

examples of the chemistry points made in the response

The underlined words are needed to gain each bullet point.

- sulfuric acid is heated in a beaker and copper oxide is added with stirring
- until the copper oxide is in excess
- the mixture is filtered
or
the mixture is poured through a funnel and filter paper
- to remove the excess copper oxide
- some of the solution is evaporated
or
heated in an evaporating basin/dish
- the solution is allowed to crystallise / cool down