As sweet as? Detecting aspartame in a table-top sweetener

A sample of a table top sweetener is provided. One teaspoonful of this would sweeten a cup of tea.

- Find out whether or not this substance contains the sweetening agent aspartame. Aspartame is a synthetic sweetening agent which tastes very similar to sucrose but is about 200 times sweeter.

Aspartame is the methyl ester of a dipeptide containing the amino acids aspartic acid and phenylalanine. The chemical name is L-aspartyl-L-phenylalanine methyl ester. The diagram below shows its structure with the dotted lines dividing the structure into its component groups.

Health & Safety

In planning this activity, you should consider health and safety. Check your plans with your teacher before implementing them.

Eye protection (splash proof goggles to BS EN 166 3) must be worn.

Credits

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Health & safety checked May 2018

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