Identification and quantification of preservative chemicals in common household products

Session 3 Pre-Laboratory exercise

During Session 3, you will analyse your purified extracts in order to identify and quantify the parabens present in the product you decided to investigate.

Answer the following questions to prepare you for the Session 3 laboratory work.

Question 1:

During Session 2, we determined that gas chromatography (GC) was the most appropriate technique for the analysis of your extract. However, it will be necessary to *derivatise* your parabens, prior to analysis. Find some information about derivatisation procedures. Identify a suitable Si-based reagent for use with parabens.

Question 2:

In order to be able to quantify the composition of your extract by GC, you will need to inject the appropriate amount of chemical onto the column.

For GC, the usual amount of chemical injected onto a column corresponds to approximately 5 pg. The injection volume is usually 1µl.

Having weighed your purified fraction, calculate the volume of solvent you will need to obtain a solution suitable for analysis by GC.

Question 3:

Describe the role of the procedural blank that you carried out in Session 2.

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