

Identification and quantification of preservative chemicals in common household products

Procedure for the extraction of parabens from household products suitable for analysis by HPLC

Step 1 Product

- Weigh 0.25g (approximate mass, but accurately known) of your chosen product into a 100 mL glass beaker

Step 2 Standards

- Prepare solutions containing your 4 paraben standards at concentrations of 1, 5 and 10 $\mu\text{g mL}^{-1}$ in water/acetonitrile (75/25; v/v)

Step 3 Extraction

To your product:

- Add approximately 50 mL of water/acetonitrile (75/25; v/v) to the product and carefully homogenise the mixture.
- Transfer this mixture to a 100 mL volumetric flask and adjust to 100 mL using more water/acetonitrile.
- Filter the solution using a funnel and fluted filter paper into a further flask

Step 4 Purification

The samples can be analysed without any prior purification

Step 5 Analysis

Each solution (100 μL) will be analysed using an HPLC system equipped with a UV-Vis detector.

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