

# **Identification and quantification of preservative chemicals in common household products**

## **Technical Information**

### **Session 1**

- A range of household/cosmetics/toiletries e.g. shampoos, toothpaste, moisturising cream, etc.
- Copies of the 3 articles to be provided to the students

### **Session 2**

*Per student pair*

#### **Parabens - extraction and preparation for LC analysis**

- 1 x household/cosmetics/toiletries e.g. shampoos, toothpaste, moisturising cream, etc
- Beakers of 50, 100, 500 and 1000 mL – (students should use 100 mL)
- 2 x Glass funnels
- 50 mL measuring cylinder
- MiliQ water
- Acetonitrile
- Paper filters
- Volumetric flasks of 1,5,10, 50 and 100 mL - (students to use 100 mL)
- Analytical balance (10 mg precision)

#### **Preparation of standards**

*One student pair can prepare 1 standard*

- Weighing boats
- Spatulas
- Methyl, Ethyl, Propyl, Butyl parabens, 3-Propyl paraben
- Volumetric flasks of 1,5,10, 50 and 100 mL - (students to use 100 mL)
- Micro pipettes/syringes of 10 µl and 100 µl
- Analytical balance (0.1mg precision)
- Acetonitrile
- MiliQ Water

#### **LC analysis**

- LC system with a Reodyne valve and a UV/Vis detector (254 nm)
- C<sub>18</sub> column
- Acetonitrile
- MiliQ Water
- Acetic acid
- Syringe (100 µl)

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