



## **Method Summary**

### **Determination of C12-C14 Fatty Alcohols in Aqueous Matrices by GC-MS**

#### **Scope and Range**

This method is used to determine selected fatty alcohols and their associated linear ethoxylates. The target compound list and limits of detection (LODs) are detailed in the table below. This method is currently unaccredited.

#### **References**

EPA3510C Separatory Funnel Liquid-Liquid Extraction

#### **Principle**

Preparation and Extraction:

Samples are extracted using a liquid/liquid approach.

Analysis:

A portion of extract is also derivitised before injection onto a GC-MS system and analysed for the target fatty alcohols and fatty alcohol ethoxylates. The ethoxylates are semi-quantified against the calibrations derived from the fatty alcohol standards.

Detection limits quoted are based on 80ml of sample used.

Dodecanol	0.5µg/l
Tridecanol	0.5µg/l
Tetradecanol	0.5µg/l
Dodecanol Ethoxylates	1µg/l
Tridecanol Ethoxylates	1µg/l
Tetradecanol Ethoxylates	1µg/l

#### **Interferences**

Extracted samples may contain interferences from other compounds contained within the sample matrix. Using the principles of GC-MS, many of these interferences will be eliminated. However, there may be occasions when interferences from non-target compounds arise from similar precursor and product ions. In these cases, reported limits of detection may be raised.