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Method Summary

Determination of Phenols by GCMS

Scope and Range

This method describes a procedure for the detection, identification and quantification of 9 phenols from matrices such as soils, waters, leachates, slurries and sediments. The analysis is conducted on an Agilent 6890 Gas Chromatograph system using an Agilent 5973 Mass Selective Detector (MSD). Detection limits are set at 1µg/kg based on 10g of extracted soil/sediment and 0.5µg/l based on 600-1000ml of extracted water/leachate/slurry, however, the detection limit will increase if less sample is available for extraction.

References

none

Principle

Prior to this method, appropriate sample extraction techniques are used e.g. Soxtherm extraction for soils/sediments and solid phase extraction for waters/leachates/slurries.

A known volume of sample extract is injected into a gas chromatograph and analysed by a temperature programmed capillary chromatography and Mass Selective Detector. Identification is performed using Selective Ion Monitoring (SIM) and quantification of the components is carried out by means of the Internal Standard Technique.

Interferences

Compounds with retention times and ion spectra similar to the target compounds will interfere.