



## **Method Summary**

### **Determination of Phenols in Waters using Solid Phase Extraction, Derivatisation and GC-MS**

#### **Scope and Range**

This method describes a procedure for the detection, identification and quantification of 21 phenolic compounds ranging from phenol to dinoseb.

Calibration Range: 2.5 µg/L to 500 µg/L

Sample Range: LOD-50 µg/L

<b>Compound</b>	<b>µg/L</b>
Phenol	0.5
2-Methylphenol	0.5
3-Methylphenol	0.5
4-Methylphenol	0.5
2-Chlorophenol	0.5
2,4-Dimethylphenol	0.5
4-Chloro-3-methylphenol	0.5
2,6-Dichlorophenol	0.5
4-Chlorophenol	0.5
2,4-Dichlorophenol	0.5
2-Nitrophenol	0.5
2,4,6-Trichlorophenol	0.5
2,4,5-Trichlorophenol	0.5
4-Nitrophenol	0.5
2,3,5,6-Tetrachlorophenol	0.5
2,3,4,6-Tetrachlorophenol	0.5
2,4-Dinitrophenol	2.5
DNOC	3
Pentachlorophenol	2
Dinoseb	4

#### **References**

none

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#### **Principle**

Preparation and Extraction:

A known volume of sample, usually 200ml is acidified and passed through a SPE cartridge. The analytes of interest are eluted from the SPE cartridge and derivitised.

Analysis:

Samples are analysed on an Agilent 6890 Gas Chromatograph with an Agilent 5973 or 5975 Mass Selective Detector.

#### **Interferences**

Due to the nature of the analysis interferences should be minimal but any compound that fragments in a similar fashion at a retention time close to that of the target analytes may interfere with the analysis.