



## **Method Summary**

### **Determination of n-Hexane in Soils and Waters by Headspace/GC-MS**

#### **Scope and Range**

This method is for the detection, identification and quantitation of n-hexane in soil and water samples. This is outside the scope of UKAS accreditation.

Holding time for VOC vials is 14 days.

Calibration Range: LOD to 500 µg/l

Sample Range: LOD to 2500 µg/kg

<b>Compound</b>	<b>LOD Soils ug/kg</b>	<b>LOD Waters ug/l</b>
n-Hexane	10	2

#### **References**

Rapid Quantitation of VOCs in Soil and Water by HS-GC-MS. Chromatography Technical Note No. 48, Anatune Ltd, UK.

USEPA Method No. 624 'Method 624 - Purgeables'.

USEPA Method No. 8260b 'Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry' (GC-MS).'

USEPA Method No. 5021 'Volatile organic compounds in soils and other solid matrices using equilibrium headspace analysis'

#### **Principle**

##### Preparation and Extraction

##### Soils:

Sodium Sulphate is added to a clean 20ml clear glass, crimp topped headspace sample vial. Soil or sediment sample is then weighed into the vial, to this, matrix modifier is added. Internal standards and surrogates are then spiked into the matrix modifier and the septum top is crimped on securely. The sample is then ready for analysis.

##### Waters:

Sodium Sulphate is added to a clean 20ml clear glass, crimp topped headspace sample vial and matrix modifier is added. The water sample is then placed into the vial with the internal standards and surrogates below the surface of the water. The septum cap is crimped on securely and the sample is then ready for analysis.

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Analysis:

Samples are analysed by a gas chromatographic system equipped with headspace sampler unit

## **Interferences**

Any compound or mixture with a similar volatility to the target analytes, which may co-elute with the target compounds and hinder or mask their identification, e.g. solvents, hydrocarbons (petrol/kerosene).