

**Method Summary****Determination of Volatile Organic Compounds in Waters by Headspace/GC-MS**

Compound	LOR (µg/l)	Landfill Leach	Untreated Sewage	Treated Sewage	Trade Effluent	Ground Water	Surface Water
Dichlorodifluoromethane	<1	-	-	-	-	-	-
Dichloromethane	<3	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Ethylbenzene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Hexachlorobutadiene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Isopropylbenzene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Naphthalene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
n-Butylbenzene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
o-Xylene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
m,p-Xylene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Propylbenzene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
sec-Butylbenzene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Styrene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
tert-Amyl methyl ether (TAME)	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Methyl tertiary butyl ether (MTBE)	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
tert-Butylbenzene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Tetrachloroethene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Toluene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
trans-1,2-Dichloroethene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
trans-1,3-Dichloropropene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Trichloroethene	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Trichlorofluoromethane	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025
Vinyl chloride	<1	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025	ISO17025

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 - Purgables'.

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

Determination of Volatile Organic Compounds by Headspace Trap. Barani et al. Journal of Chromatographic Science, Vol. 44, November/December 2006.

Principle

An aliquot of the sample is transferred to a headspace vial and heated/agitated to drive volatile analytes into the headspace of the vial. A portion of the headspace is transferred to a gas chromatograph where the compounds are separated and then detected by GC-MS.

Interferences

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