



METHOD STATEMENT

Determinand:

Solvents

(Dichloromethane, Butan-2-one (MEK), Ethyl acetate, 4 Methyl-2-pentanone (MIBK), Acetone, Acetonitrile, Butan-1-ol, Butan-2-ol, Propan-1-ol, Propan-2-ol (IPA), Ethanol, Isobutanol & Methanol)

Matrix:

Raw, potable, groundwaters, effluents, wastewaters and leachates.

Principle of Method:

The sample is placed in a septum vial and allowed to equilibrate with its headspace vapour at 80°C. A sample of the vapour is injected using an automatic headspace sampler into a capillary column gas chromatograph fitted with a flame ionisation detector.

Sampling and Sample Preparation:

The samples are stored in the cold room at 3±2°C awaiting analysis, which should take place as soon as possible.

There should be minimal or no headspace present in the sample bottles.

Interferences:

Any compound extractable into the headspace, which has a similar GC retention time and elicits a detector response, will interfere.

Performance of Method:

Determinand	CAS Number	Range of Application mg/l
Dichloromethane	75-09-2	0.5 - 10
Butan-2-one (MEK)	78-93-3	0.5 - 25
Ethyl Acetate	141-78-6	0.5 - 25
4-Methylpentanone (MIBK)	108-10-1	0.5 - 25
Acetone	67-64-1	1 - 50
Acetonitrile	75-05-8	1 - 50
Butan-1-ol	71-36-3	1 - 50
Butan-2-ol	78-92-2	1 - 50
Propan-1-ol	71-23-8	1 - 50
Propan-2-ol (IPA)	68-63-0	1 - 50
Ethanol	64-17-5	5 - 250
Isobutanol	78-83-1	1 - 50
Methanol	67-56-1	5 - 250

References:

In-house developed method based on: - Determination of very low concentrations of hydrocarbons and halogenated hydrocarbons in water 1984-5. Methods for the Examination of Waters and Associated Materials, HMSO ISBN 0 11 752004 7.