



Method Summary

Determination of Glycols in Liquid Matrices by Direct Injection Gas Chromatography

Scope and Range

This method describes a procedure to detect levels of seven glycols in water matrices. It is appropriate for ground water, effluents and similar water matrices. Detection limits (LOD's) are as set out in Table One, however these will vary should all dilutions be required

<u>Compound</u>	<u>Detection Limit</u>
Propylene Glycol	5mg/l
Ethylene Glycol	5mg/l
1,3-Propanediol	2mg/l
1,3-Butanediol	2mg/l
1,4-Butanediol	2mg/l
Diethylene Glycol	2mg/l
Triethylene Glycol	2mg/l

Table 1 Limits of Detection

References

Restek applications note #59187 "Techniques for optimising GC analysis of ethylene glycol in water"

Principle

A portion of sample is filtered and injected directly into a GC and analysed by Flame Ionised Detection. (GC-FID)

Interferences

Solvents, reagent glassware and other sample processing hardware may yield artifacts that interfere with analysis. All these materials must be demonstrated to be free from artifacts under the conditions of the analysis. This is undertaken by analysis of method blanks. Samples which have a high level of salinity will require large pre-dilutions to avoid precipitation of salts into the GC system.