

Method Number: TM 416

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Page 1 of 1

**Method Summary****Determination of Metaldehyde in Liquids by GCMS****Scope and Range**

This procedure describes a method to detect trace levels of metaldehyde in water.

The reporting limit for Metaldehyde is <10ng/L based on the extraction of 80ml of sample; however, the reporting limit will vary if less sample is available or a dilution is required.

This method is not currently accredited.

References

EPA 3510C - Separatory Funnel Liquid-Liquid Extraction

EPA 8270E - Semi-volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Principle

Preparation and Extraction:

A measured volume of sample, usually 80ml, is serially extracted with dichloromethane using a separatory funnel. The extract is dried and concentrated prior to analysis.

Analysis:

The analyte is introduced into the GCMS by injecting the sample extract into a GC equipped with a capillary column. The analytes are separated using a temperature-controlled program and are eluted into the MS for detection. Quantitation is accomplished by comparing the response of a major (quantitation) ion relative to an internal standard (IS) using an appropriate a 6-point calibration curve.

Interferences

Interferences co-extracted from the sample will vary considerably from source to source. If analysis of an extracted sample is prevented due to interferences it may be necessary to raise the detection limit.