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Method Summary

Determination of Selected Organotin Compounds in Liquids by GCMS

Scope and Range

This method describes a procedure to determine selected Organotin compounds in organic extracts. The compounds selected are dibutyltin dichloride, tributyltin chloride, tetrabutyltin and triphenyltin chloride. The compounds are derivitised *in situ* and solvent extracted. This method is applicable to ground water, landfill leachate and similar environmental matrices.

References

Water Quality - Determination of selected organotin compounds - Gas chromatographic method, BS EN ISO 17353:2005

Principle

Organotin compounds are alkylated with sodium tetraethylborate and extracted with hexane. The extract is cleaned with silica gel and concentrated. Separation of the target analytes is performed by capillary gas chromatography and detected by mass selective detection. The concentration is determined by calibration for the total procedure.

Interferences

The reagents sometimes contain impurities of organotin compounds. Analysis of blanks is performed to verify their appropriateness.

Solvents, reagents, glassware and other sample processing hardware may yield artefacts and/or interferences to sample analysis. All these materials must be demonstrated to be free from interferences under the conditions of the analysis. This is undertaken by analysis of method blanks. Interferences coextracted from the sample will vary considerably from source to source.