

**Method Summary**

Determination of Organochlorine and Organophosphorus Pesticides and Triazine Herbicides in soils by GCMS

Scope and Range

This method describes a procedure for the detection, identification and quantification of 75 pesticides. This method is applicable to the analysis of soil and sediment samples. The analysis is conducted on a Gas Chromatograph system using a Mass Selective Detector (GCMS).

Detection limits are set at 50µg/kg based on 10g of extracted soil/sediment, however, the detection limit will increase if less sample is available for extraction.

References

Samples are extracted using a dichloromethane/acetone mix. The sample extract is injected into a gas chromatograph and analysed by GCMS. Identification is performed using Selective Ion Monitoring (SIM).

Principle

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

Interferences

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

Compound Name		
1,3,5-Trichlorobenzene	Propetamphos	Parathion
Hexachlorobutadiene	Terbutylazine	o,p'-DDE
1,2,4-Trichlorobenzene	Heptachlor	Chlorfenvinphos
1,2,3-Trichlorobenzene	Propyzamide	Endosulphan I
Dichlorvos	Chlorpyriphos-methyl	trans-Chlordane
Dichlobenil	Dimethoate	cis-Chlordane
Mevinphos	Aldrin	p,p'-DDE
Tecnazene	Chlorothalonil	Dieldrin
Tributylphosphate	Pirimiphos-methyl	o,p'-DDD (TDE)
Hexachlorobenzene	Prometryn	Endrin
Trifluralin	Ametryn	o,p'-DDT
Demeton-S-methyl	Simetryn	p,p'-DDD (TDE)
Phorate	Telodrin	Ethion
alpha-HCH	beta-HCH	Endosulphan II
Quintozene (PCNB)	Terbutryn	p,p'-DDT
Prometon	Chlorpyriphos	Carbophenothion
Diazinon	Methyl Parathion	o,p'-Methoxychlor
Atraton	Isodrin	Triazophos
Triallate	delta-HCH	p,p'-Methoxychlor
Etrimphos	Malathion	Endosulphan Sulphate

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Page 2 of 2

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Propazine	Fenthion	Permethrin I
gamma-HCH (Lindane)	Fenitrothion	Phosalone
Atrazine	Heptachlor epoxide	Permethrin II
Simazine	Triadimefon	Azinphos methyl
Disulfoton	Pendimethalin	Azinphos ethyl