



Technical Datasheet

Analysis Name: Pesticide Residues by GC-MS/MS

Method Number: NQA-54.0005

Scope of Application: Fatty and non-fatty foods, gummy-based vitamins. This method is not suitable to determine soy lecithin, white pepper, turmeric, fennel extract, oleoresin, bay leaf, spinach, and dried clove.

Two sample extraction processes are used (known as variation 2 & 3) depending on the sample matrix compatibility. Select compounds may be included/excluded from reporting due to the extraction process used- refer to the analyte table below for applicability.

Example matrix types/extraction method used:

Representative Matrix	Extraction Variation
Fresh Fruit/Veg.	2
Single Strength Juice	2
RTF Infant Formula	2
Juice Concentrate/Honey	2
Infant Formula Concentrate	2
Dried Fruit/Vegetable	2 or 3- contact the lab for clarification
Dried Grains/Cereals	2
Chocolate	2
Powdered Infant Formula	2
Oils and Fats	2
Coffee/Tea/Spice	3

Description: A reference multiresidue method for the low level determination of organochlorine, organophosphorous, organonitrogen, and pyrethroid residues in fatty and non-fatty foods.

This method uses a contaminant confirmation process to confirm any detections above the Code of Federal Regulation limits. A retest will be automatically initiated for any such detections and a new due date will be communicated.



Sample Weight Required: 50 g

Method Reference: EN 15662 Foods of Plant Origin-Determination of pesticide residues using GC-MS and/or LC-MS/MS following acetonitrile extraction/partitioning and clean up by dispersive SPE-QuEChERS-method. Nov. 2008.

SANCO/12571/2013 "Guidance document on analytical quality control and validation procedures for pesticide residue analysis in food and feed."

Analytical Platform: GC-MS/MS

Analyte Reported	Alias	Reported By Variation	Unit of Measure	Limit of Quantification	Reproducibility
Aldrin			mg/kg	0.01 mg/kg	≤20%
Benfluralin			mg/kg	0.01 mg/kg	≤20%
BHC Alpha			mg/kg	0.01 mg/kg	≤20%
BHC Beta			mg/kg	0.01 mg/kg	≤20%
BHC Delta			mg/kg	0.01 mg/kg	≤20%
Bromopropylate			mg/kg	0.01 mg/kg	≤20%
Captafol		Variation 2 only	mg/kg	0.01 mg/kg	≤20%
Captan		Variation 2 only	mg/kg	0.01 mg/kg	≤20%
Chlordane Cis			mg/kg	0.01 mg/kg	≤20%
Chlordane Trans			mg/kg	0.01 mg/kg	≤20%
Chlorfenapyr			mg/kg	0.01 mg/kg	≤20%
Chlorfenoson			mg/kg	0.01 mg/kg	≤20%
Chlorobenzilate			mg/kg	0.01 mg/kg	≤20%
Chlorpropham			mg/kg	0.01 mg/kg	≤20%



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Chlorothalonil		Variation 3 only	mg/kg	0.01 mg/kg	≤20%
Chlozolate			mg/kg	0.01 mg/kg	≤20%
Cyfluthrin 1**	Baythroid		mg/kg	0.01 mg/kg	≤20%
Cyfluthrin 2**	Baythroid		mg/kg	0.01 mg/kg	≤20%
Cyfluthrin 3**	Baythroid		mg/kg	0.01 mg/kg	≤20%
Cyfluthrin 4**	Baythroid		mg/kg	0.01 mg/kg	≤20%
Dacthal			mg/kg	0.01 mg/kg	≤20%
Dichlobenil			mg/kg	0.01 mg/kg	≤20%
Dicofluanid		Variation 2 only	mg/kg	0.01 mg/kg	≤20%
Dicloran			mg/kg	0.01 mg/kg	≤20%
Dicofol (met)			mg/kg	0.01 mg/kg	≤20%
Dieldrin			mg/kg	0.01 mg/kg	≤20%
Diphenylamine			mg/kg	0.01 mg/kg	≤20%
Endosulfan I			mg/kg	0.01 mg/kg	≤20%
Endosulfan II			mg/kg	0.01 mg/kg	≤20%
Endosulfan Sulfate			mg/kg	0.01 mg/kg	≤20%
Endrin			mg/kg	0.01 mg/kg	≤20%
Ethalfuralin			mg/kg	0.01 mg/kg	≤20%
Fenitrothion			mg/kg	0.01 mg/kg	≤20%
Fenpropathrin		Variation 2 only	mg/kg	0.01 mg/kg	≤20%
Fenson			mg/kg	0.01 mg/kg	≤20%
Fenvalerate 1			mg/kg	0.01 mg/kg	≤20%
Fenvalerate 2			mg/kg	0.01 mg/kg	≤20%
Folpet		Variation 2 only	mg/kg	0.01 mg/kg	≤20%
HCB			mg/kg	0.01 mg/kg	≤20%
Heptachlor			mg/kg	0.01 mg/kg	≤20%
Heptachlor Epoxide A			mg/kg	0.01 mg/kg	≤20%
Heptachlor Epoxide B			mg/kg	0.01 mg/kg	≤20%
L-Cyhalothrin			mg/kg	0.01 mg/kg	≤20%
Lindane			mg/kg	0.01 mg/kg	≤20%
Mirex			mg/kg	0.01 mg/kg	≤20%
Nitrofen			mg/kg	0.01 mg/kg	≤20%
o, p'- DDD			mg/kg	0.01 mg/kg	≤20%
o, p'- DDE			mg/kg	0.01 mg/kg	≤20%
o, p'- DDT			mg/kg	0.01 mg/kg	≤20%
o- Phenylphenol		Variation 2 only	mg/kg	0.01 mg/kg	≤20%
Oxychordane			mg/kg	0.01 mg/kg	≤20%



p, p'- DDD			mg/kg	0.01 mg/kg	≤20%
p, p'- DDE			mg/kg	0.01 mg/kg	≤20%
p, p'- DDT			mg/kg	0.01 mg/kg	≤20%
p, p'- Methoxychlor			mg/kg	0.01 mg/kg	≤20%
Parathion-methyl			mg/kg	0.01 mg/kg	≤20%
PCB 101			mg/kg	0.001 mg/kg	≤20%
PCB 118			mg/kg	0.001 mg/kg	≤20%
PCB 138			mg/kg	0.001 mg/kg	≤20%
PCB 153			mg/kg	0.001 mg/kg	≤20%
PCB 180			mg/kg	0.001 mg/kg	≤20%
PCB 28			mg/kg	0.001 mg/kg	≤20%
PCB 52			mg/kg	0.001 mg/kg	≤20%
Pentachloroaniline			mg/kg	0.01 mg/kg	≤20%
Perthane			mg/kg	0.01 mg/kg	≤20%
Procymidone			mg/kg	0.01 mg/kg	≤20%
Profluralin			mg/kg	0.01 mg/kg	≤20%
Propham			mg/kg	0.01 mg/kg	≤20%
Quintozene			mg/kg	0.01 mg/kg	≤20%
Ronnel			mg/kg	0.01 mg/kg	≤20%
Tecnazene			mg/kg	0.01 mg/kg	≤20%
Tefluthrin			mg/kg	0.01 mg/kg	≤20%
Tetradifon			mg/kg	0.01 mg/kg	≤20%
Tetrasul			mg/kg	0.01 mg/kg	≤20%
THPI		Variation 2 only	mg/kg	0.01 mg/kg	≤20%
Trifluralin			mg/kg	0.01 mg/kg	≤20%
Vinclozolin			mg/kg	0.01 mg/kg	≤20%
Aldrin + Dieldrin			mg/kg	0.01 mg/kg	≤20%
Total DDT			mg/kg	0.01 mg/kg	≤20%
Total Cyfluthrin			mg/kg	0.01 mg/kg	≤20%
Total Endosulfans			mg/kg	0.01 mg/kg	≤20%
Total Heptachlor			mg/kg	0.01 mg/kg	≤20%
Total PCBs*			mg/kg	0.001mg/kg	≤20%

*Total PCB's excludes PCB 118

**Cyfluthrin reported as Total Cyfluthrin