



NQAC

Nestlé Quality Assurance Center  
Dublin

# 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



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**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	Reported By Variation	Unit of Measure	Limit of Quantification	Reproducibility
Aldrin		mg/kg	0.01 mg/kg	≤30%
Benfluralin		mg/kg	0.01 mg/kg	≤30%
BHC Alpha		mg/kg	0.01 mg/kg	≤30%
BHC Beta		mg/kg	0.01 mg/kg	≤30%
BHC Delta		mg/kg	0.01 mg/kg	≤30%
Bromophos-methyl		mg/kg	0.01 mg/kg	≤30%



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Bromopropylate		mg/kg	0.01 mg/kg	≤30%
Captafol	Variation 2 only	mg/kg	0.01 mg/kg	≤30%
Captan	Variation 2 only	mg/kg	0.01 mg/kg	≤30%
Chlordane Cis		mg/kg	0.01 mg/kg	≤30%
Chlordane Trans		mg/kg	0.01 mg/kg	≤30%
Chlorfenapyr		mg/kg	0.01 mg/kg	≤30%
Chlorfenson		mg/kg	0.01 mg/kg	≤30%
Chlorobenzilate		mg/kg	0.01 mg/kg	≤30%
Chlorpropham		mg/kg	0.01 mg/kg	≤30%
Chlorothalonil	Variation 3 only	mg/kg	0.01 mg/kg	≤30%
Chlozolate		mg/kg	0.01 mg/kg	≤30%
Cyfluthrin 1**		mg/kg	0.01 mg/kg	≤30%
Cyfluthrin 2**		mg/kg	0.01 mg/kg	≤30%
Cyfluthrin 3**		mg/kg	0.01 mg/kg	≤30%
Cyfluthrin 4**		mg/kg	0.01 mg/kg	≤30%
Dacthal		mg/kg	0.01 mg/kg	≤30%
Dichlobenil		mg/kg	0.01 mg/kg	≤30%
Dichlofluanid	Variation 2 only	mg/kg	0.01 mg/kg	≤30%
Dicloran		mg/kg	0.01 mg/kg	≤30%
Dicofol (met)		mg/kg	0.01 mg/kg	≤30%
Dieldrin		mg/kg	0.01 mg/kg	≤30%
Diphenylamine		mg/kg	0.01 mg/kg	≤30%
Endosulfan I		mg/kg	0.01 mg/kg	≤30%
Endosulfan II		mg/kg	0.01 mg/kg	≤30%
Endosulfan Sulfate		mg/kg	0.01 mg/kg	≤30%
Endrin		mg/kg	0.01 mg/kg	≤30%
Epsilon HCH		mg/kg	0.01 mg/kg	≤30%
Ethalfuralin		mg/kg	0.01 mg/kg	≤30%
Fenitrothion		mg/kg	0.01 mg/kg	≤30%



# NQAC

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Fenpropathrin	Variation 2 only	mg/kg	0.01 mg/kg	≤30%
Fenson		mg/kg	0.01 mg/kg	≤30%
Fenvalerate 1		mg/kg	0.01 mg/kg	≤30%
Fenvalerate 2		mg/kg	0.01 mg/kg	≤30%
Folpet	Variation 2 only	mg/kg	0.01 mg/kg	≤30%
HCB		mg/kg	0.01 mg/kg	≤30%
Heptachlor		mg/kg	0.01 mg/kg	≤30%
Heptachlor Epoxide A		mg/kg	0.01 mg/kg	≤30%
Heptachlor Epoxide B		mg/kg	0.01 mg/kg	≤30%
Iprodione		mg/kg	0.01 mg/kg	≤30%
Isoxathion		mg/kg	0.01 mg/kg	≤30%
L-Cyhalothrin		mg/kg	0.01 mg/kg	≤30%
Lindane		mg/kg	0.01 mg/kg	≤30%
Mirex		mg/kg	0.01 mg/kg	≤30%
Nitrofen		mg/kg	0.01 mg/kg	≤30%
o, p'- DDD		mg/kg	0.01 mg/kg	≤30%
o, p'- DDE		mg/kg	0.01 mg/kg	≤30%
o, p'- DDT		mg/kg	0.01 mg/kg	≤30%
o- Phenylphenol	Variation 2 only	mg/kg	0.01 mg/kg	≤30%
Oxychlorane		mg/kg	0.01 mg/kg	≤30%
p, p'- DDD		mg/kg	0.01 mg/kg	≤30%
p, p'- DDE		mg/kg	0.01 mg/kg	≤30%
p, p'- DDT		mg/kg	0.01 mg/kg	≤30%
p, p'- Methoxychlor		mg/kg	0.01 mg/kg	≤30%
Parathion-methyl		mg/kg	0.01 mg/kg	≤30%
PCB 101		mg/kg	0.001 mg/kg	≤30%
PCB 118		mg/kg	0.001 mg/kg	≤30%
PCB 138		mg/kg	0.001 mg/kg	≤30%



# NQAC

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PCB 153		mg/kg	0.001 mg/kg	≤30%
PCB 180		mg/kg	0.001 mg/kg	≤30%
PCB 28		mg/kg	0.001 mg/kg	≤30%
PCB 52		mg/kg	0.001 mg/kg	≤30%
Pentachloroaniline		mg/kg	0.01 mg/kg	≤30%
Pentachlorobenzene		mg/kg	0.01 mg/kg	≤30%
Perthane		mg/kg	0.01 mg/kg	≤30%
Procymidone		mg/kg	0.01 mg/kg	≤30%
Profluralin		mg/kg	0.01 mg/kg	≤30%
Propham		mg/kg	0.01 mg/kg	≤30%
Quintozene		mg/kg	0.01 mg/kg	≤30%
Ronnel		mg/kg	0.01 mg/kg	≤30%
Tecnazene		mg/kg	0.01 mg/kg	≤30%
Tefluthrin		mg/kg	0.01 mg/kg	≤30%
Tetradifon		mg/kg	0.01 mg/kg	≤30%
Tetrasul		mg/kg	0.01 mg/kg	≤30%
THPI	Variation 2 only	mg/kg	0.01 mg/kg	≤30%
Trifluralin		mg/kg	0.01 mg/kg	≤30%
Vinclozolin		mg/kg	0.01 mg/kg	≤30%

\*\*Cyfluthrin reported as Total Cyfluthrin (I + II + III + IV)