

Technical Datasheet

Analysis Name:	Determination of Multiresidues of Pesticides by LC-MS/MS
Method Number:	LIBR 088
Scope Application:	Description of a method for the analysis of pesticide residues in foods of plant origin, such as fruits (including dried fruits), vegetables (including dried vegetables), cereals and many processed products thereof by using LC-MS(/MS).
Description:	The homogeneous sample is extracted with the help of acetonitrile. Samples with low water content (<80 %) require the addition of water before the initial extraction to get a total of approximately 10 g of water. After addition of magnesium sulfate, sodium chloride and buffering citrate salts, the mixture is shaken intensively and centrifuged for phase separation. An aliquot of the organic phase is cleaned-up by dispersive solid phase extraction (D-SPE) employing bulk sorbents as well as magnesium sulfate for the removal of residual water. Following clean-up with amino-sorbents (e.g. primary secondary amine sorbent, PSA) and if necessary graphitized carbon black (GCB) or octadecylsilane (ODS), extracts are acidified by adding a small amount of formic acid, to improve the storage stability of certain base sensitive pesticides.
Sample Weight Required:	120 g
Method Reference:	-
Analytical Platform:	LC-MS/MS
Special Information:	Method accredited ABNT ISO 17025: 2017.

Analyte Reported	Alias	Unit of Measure	Typical Limit of Quantification	Uncertainty
Acetamiprid	-	mg/kg	0.010	< 50 %
Acibenzolar-S-Methyl	-	mg/kg	0.010	< 50 %
Ametryne	-	mg/kg	0.010	< 50 %
Azoxystrobin (Pyroxystrobin)	-	mg/kg	0.010	< 50 %

Benalaxyl	-	mg/kg	0.010	< 50 %
Bendiocarb (Ficam)	-	mg/kg	0.010	< 50 %
Boscalid (Nicobifen)	-	mg/kg	0.010	< 50 %
Bromuconazole	-	mg/kg	0.010	< 50 %
Bupirimate	-	mg/kg	0.010	< 50 %
Buprofezin	-	mg/kg	0.010	< 50 %
Butafenacil	-	mg/kg	0.010	< 50 %
Butocarboxim	-	mg/kg	0.010	< 50 %
Carbaril	-	mg/kg	0.010	< 50 %
Carbetamida	-	mg/kg	0.010	< 50 %
Carbofurano	-	mg/kg	0.010	< 50 %
Carboxina	-	mg/kg	0.010	< 50 %
Carfentrazone-Ethyl	-	mg/kg	0.010	< 50 %
Chlorantraniliprole	-	mg/kg	0.010	< 50 %
Chlorfluazuron	-	mg/kg	0.010	< 50 %
Chlorotoluron	-	mg/kg	0.010	< 50 %
Chloroxuron	-	mg/kg	0.010	< 50 %
Clofentezine	-	mg/kg	0.010	< 50 %
Cyazofamid	-	mg/kg	0.010	< 50 %
Cycluron	-	mg/kg	0.010	< 50 %
Cymoxanil	-	mg/kg	0.010	< 50 %
Cyproconazole	-	mg/kg	0.010	< 50 %
Cyprodinil	-	mg/kg	0.010	< 50 %
Diclobutrazol	-	mg/kg	0.010	< 50 %
Diethofencarb	-	mg/kg	0.010	< 50 %
Difenoconazole	-	mg/kg	0.010	< 50 %
Diflubenzuron	-	mg/kg	0.010	< 50 %
Dimethomorph	-	mg/kg	0.010	< 50 %
Diniconazole	-	mg/kg	0.010	< 50 %
Dioxacarb	-	mg/kg	0.010	< 50 %
Diuron	-	mg/kg	0.010	< 50 %
Ethiprole	-	mg/kg	0.010	< 50 %
Ethirimol	-	mg/kg	0.010	< 50 %
Etoxazole	-	mg/kg	0.010	< 50 %
Fenamidone	-	mg/kg	0.010	< 50 %
Fenarimol	-	mg/kg	0.010	< 50 %
Fenazaquin	-	mg/kg	0.010	< 50 %
Fenbuconazole	-	mg/kg	0.010	< 50 %
Fenhexamid	-	mg/kg	0.010	< 50 %
Fenobucarb	-	mg/kg	0.010	< 50 %
Fenoxycarb	-	mg/kg	0.010	< 50 %
Fenpyroximate	-	mg/kg	0.010	< 50 %
Fluazinam	-	mg/kg	0.010	< 50 %
Fluometuron	-	mg/kg	0.010	< 50 %
Fluoxastrobin	-	mg/kg	0.010	< 50 %
Fluquinconazole	-	mg/kg	0.010	< 50 %
Flusilazole	-	mg/kg	0.010	< 50 %
Flutolanil	-	mg/kg	0.010	< 50 %



NQAC

Nestlé Quality Assurance Center

Flutriafol	-	mg/kg	0.010	< 50 %
Forchlorfenuron	-	mg/kg	0.010	< 50 %
Fuberidazole	-	mg/kg	0.010	< 50 %
Furalaxyl	-	mg/kg	0.010	< 50 %
Hexaconazole	-	mg/kg	0.010	< 50 %
Hexaflumuron	-	mg/kg	0.010	< 50 %
Hydramethylnon	-	mg/kg	0.010	< 50 %
Ipconazole	-	mg/kg	0.010	< 50 %
Iprovalicarb	-	mg/kg	0.010	< 50 %
Isoprocarb	-	mg/kg	0.010	< 50 %
Isoproturon	-	mg/kg	0.010	< 50 %
Linuron	-	mg/kg	0.010	< 50 %
Lufenuron	-	mg/kg	0.010	< 50 %
Mandipropamid	-	mg/kg	0.010	< 50 %
Mefenacet	-	mg/kg	0.010	< 50 %
Mepanipyrim	-	mg/kg	0.010	< 50 %
Mepronil	-	mg/kg	0.010	< 50 %
Metaflumizone	-	mg/kg	0.010	< 50 %
Metalaxyl	-	mg/kg	0.010	< 50 %
Metconazole	-	mg/kg	0.010	< 50 %
Methabenzthiazuron	-	mg/kg	0.010	< 50 %
Methoprotryne	-	mg/kg	0.010	< 50 %
Metribuzin	-	mg/kg	0.010	< 50 %
Mevinphos Phosdrin	-	mg/kg	0.010	< 50 %
Monolinuron	-	mg/kg	0.010	< 50 %
Myclobutanil	-	mg/kg	0.010	< 50 %
Neburon	-	mg/kg	0.010	< 50 %
Nuarimol	-	mg/kg	0.010	< 50 %
Paclobutrazol	-	mg/kg	0.010	< 50 %
Penconazole	-	mg/kg	0.010	< 50 %
Pencycuron	-	mg/kg	0.010	< 50 %
Pirimicarb	-	mg/kg	0.010	< 50 %
Promecarb	-	mg/kg	0.010	< 50 %
Prometon	-	mg/kg	0.010	< 50 %
Prometryn	-	mg/kg	0.010	< 50 %
Prothioconazole	-	mg/kg	0.010	< 50 %
Pyracarbolid	-	mg/kg	0.010	< 50 %
Pyraclostrobin	-	mg/kg	0.010	< 50 %
Pyriproxyfen	-	mg/kg	0.010	< 50 %
Quinoxifen	-	mg/kg	0.010	< 50 %
Rotenone	-	mg/kg	0.010	< 50 %
Siduron	-	mg/kg	0.010	< 50 %
Simetryn	-	mg/kg	0.010	< 50 %
Spirotetramat	-	mg/kg	0.010	< 50 %
Sulfentrazone	-	mg/kg	0.010	< 50 %
Tebuconazole	-	mg/kg	0.010	< 50 %
Tebufenpyrad	-	mg/kg	0.010	< 50 %
Tebuthiuron	-	mg/kg	0.010	< 50 %

Teflubenzuron	-	mg/kg	0.010	< 50 %
Temephos (Abate)	-	mg/kg	0.010	< 50 %
Terbumeton	-	mg/kg	0.010	< 50 %
Terbutryn	-	mg/kg	0.010	< 50 %
Tetraconazole	-	mg/kg	0.010	< 50 %
Thiabendazole	-	mg/kg	0.010	< 50 %
Thiacloprid	-	mg/kg	0.010	< 50 %
Thidiazuron	-	mg/kg	0.010	< 50 %
Thiobencarb	-	mg/kg	0.010	< 50 %
Thiophanate-Methyl	-	mg/kg	0.010	< 50 %
Triadimefon	-	mg/kg	0.010	< 50 %
Triadimenol	-	mg/kg	0.010	< 50 %
Tricyclazole	-	mg/kg	0.010	< 50 %
Trifloxystrobin	-	mg/kg	0.010	< 50 %
Triflumuron	-	mg/kg	0.010	< 50 %
Triticonazole	-	mg/kg	0.010	< 50 %
Zoxamide	-	mg/kg	0.010	< 50 %
Trimethacarb	-	mg/kg	0.010	< 50 %
loxynil	-	mg/kg	0.010	< 50 %
Alachlor (Lasso)	-	mg/kg	0.010	< 50 %
Allidochlor	-	mg/kg	0.010	< 50 %
Atraton	-	mg/kg	0.010	< 50 %
Atrazine	-	mg/kg	0.010	< 50 %
Azaconazole	-	mg/kg	0.010	< 50 %
Azamethiphos	-	mg/kg	0.010	< 50 %
Azinphos-Methyl	-	mg/kg	0.010	< 50 %
Benfuracarb	-	mg/kg	0.010	< 50 %
Benthiavalicarb-Isopropyl	-	mg/kg	0.010	< 50 %
Benzoximate	-	mg/kg	0.010	< 50 %
Bifenazate	-	mg/kg	0.010	< 50 %
Bitertanol (Baycor)	-	mg/kg	0.010	< 50 %
Bromophos (Bromophos-Methyl)	-	mg/kg	0.010	< 50 %
Buturon	-	mg/kg	0.010	< 50 %
Cadusafos (Ebufos)	-	mg/kg	0.010	< 50 %
Carbosulfan	-	mg/kg	0.010	< 50 %
Chlorbromuron	-	mg/kg	0.010	< 50 %
Chlorpropham	-	mg/kg	0.010	< 50 %
Chlorpyrifos (Chlorpyrifos Ethyl)	-	mg/kg	0.010	< 50 %
Chlorpyrifos-Methyl	-	mg/kg	0.010	< 50 %
Chlorthion	-	mg/kg	0.010	< 50 %
Coumaphos (Co- Ral)	-	mg/kg	0.010	< 50 %
Cyanazine (Bladex)	-	mg/kg	0.010	< 50 %
Cyanofenphos	-	mg/kg	0.010	< 50 %
Cyhalofop-Butyl	-	mg/kg	0.010	< 50 %
Def(Tribufos)	-	mg/kg	0.010	< 50 %
Desmedipham	-	mg/kg	0.010	< 50 %

Pirimicarb-Desmethyl-Formamido	-	mg/kg	0.010	< 50 %
Napropamide	-	mg/kg	0.010	< 50 %
Dialifos	-	mg/kg	0.010	< 50 %
Diazinon	-	mg/kg	0.010	< 50 %
Dichlofenthion	-	mg/kg	0.010	< 50 %
Dichlorvos	-	mg/kg	0.010	< 50 %
Difenoxuron	-	mg/kg	0.010	< 50 %
Diflufenican	-	mg/kg	0.010	< 50 %
Dimethoate	-	mg/kg	0.010	< 50 %
Paraoxon-Methyl	-	mg/kg	0.010	< 50 %
Dimethylvinphos	-	mg/kg	0.010	< 50 %
Dimoxystrobin	-	mg/kg	0.010	< 50 %
Dioxathion	-	mg/kg	0.010	< 50 %
Dipropetryn	-	mg/kg	0.010	< 50 %
Disulfoton-Sulfoxide	-	mg/kg	0.010	< 50 %
Disulfoton	-	mg/kg	0.010	< 50 %
Ditalimfos	-	mg/kg	0.010	< 50 %
Dimethylaminosulphotoluidide (Dmst)	-	mg/kg	0.010	< 50 %
Edifenphos	-	mg/kg	0.010	< 50 %
Epn	-	mg/kg	0.010	< 50 %
Epoxiconazole	-	mg/kg	0.010	< 50 %
Ethiofencarb	-	mg/kg	0.010	< 50 %
Ethion	-	mg/kg	0.010	< 50 %
Ethofumesate	-	mg/kg	0.010	< 50 %
Ethofenprox	-	mg/kg	0.010	< 50 %
Etrimfos	-	mg/kg	0.010	< 50 %
Famoxadone	-	mg/kg	0.010	< 50 %
Fenchlorophos	-	mg/kg	0.010	< 50 %
Fensulfothion	-	mg/kg	0.010	< 50 %
Fenthion-Sulfoxide	-	mg/kg	0.010	< 50 %
Fipronil	-	mg/kg	0.010	< 50 %
Fipronil-Sulfone	-	mg/kg	0.010	< 50 %
Fluazifop-P-Butyl	-	mg/kg	0.010	< 50 %
Flufenacet	-	mg/kg	0.010	< 50 %
Flufenoxuron	-	mg/kg	0.010	< 50 %
Flumioxazin	-	mg/kg	0.010	< 50 %
Fludioxonil	-	mg/kg	0.010	< 50 %
Flurenol-Butyl	-	mg/kg	0.010	< 50 %
Flurochloridone	-	mg/kg	0.010	< 50 %
Fluroxypyr-Meptyl	-	mg/kg	0.010	< 50 %
Formothion	-	mg/kg	0.010	< 50 %
Fosthiazate	-	mg/kg	0.010	< 50 %
Furathiocarb	-	mg/kg	0.010	< 50 %
Halofenozide	-	mg/kg	0.010	< 50 %
Haloxypop	-	mg/kg	0.010	< 50 %
Hexythiazox	-	mg/kg	0.010	< 50 %

Imazamethabenz	-	mg/kg	0.010	< 50 %
Indoxacarb	-	mg/kg	0.010	< 50 %
Isazofos	-	mg/kg	0.010	< 50 %
Isocarbophos	-	mg/kg	0.010	< 50 %
Isofenphos-Methyl	-	mg/kg	0.010	< 50 %
Lenacil	-	mg/kg	0.010	< 50 %
Malathion	-	mg/kg	0.010	< 50 %
Mecarbam	-	mg/kg	0.010	< 50 %
Mephosfolan	-	mg/kg	0.010	< 50 %
Metazachlor	-	mg/kg	0.010	< 50 %
Methacrifos	-	mg/kg	0.010	< 50 %
Methiocarb	-	mg/kg	0.010	< 50 %
Methoxyfenozone	-	mg/kg	0.010	< 50 %
Metobromuron	-	mg/kg	0.010	< 50 %
Metolcarb	-	mg/kg	0.010	< 50 %
Metoxuron	-	mg/kg	0.010	< 50 %
Metrafenone	-	mg/kg	0.010	< 50 %
Novaluron	-	mg/kg	0.010	< 50 %
Ofurace	-	mg/kg	0.010	< 50 %
Omethoate	-	mg/kg	0.010	< 50 %
Oxadiazon	-	mg/kg	0.010	< 50 %
Oxadiargyl	-	mg/kg	0.010	< 50 %
Oxamyl (Vydate)	-	mg/kg	0.010	< 50 %
Oxamyl-Oxime	-	mg/kg	0.010	< 50 %
Demeton-S-Methyl-Sulfoxide(OXYDEMOTON-ME)	-	mg/kg	0.010	< 50 %
Paraoxon	-	mg/kg	0.010	< 50 %
Fenamiphos	-	mg/kg	0.010	< 50 %
Phenmedipham	-	mg/kg	0.010	< 50 %
Phorate-Oxon	-	mg/kg	0.010	< 50 %
Phosalone	-	mg/kg	0.010	< 50 %
Phosphamidon	-	mg/kg	0.010	< 50 %
Phoxim	-	mg/kg	0.010	< 50 %
Picoxystrobin	-	mg/kg	0.010	< 50 %
Piperonyl Butoxide	-	mg/kg	0.010	< 50 %
Piperophos	-	mg/kg	0.010	< 50 %
Pirimicarb-Desmethyl	-	mg/kg	0.010	< 50 %
Pirimiphos-Ethyl	-	mg/kg	0.010	< 50 %
Prochloraz	-	mg/kg	0.010	< 50 %
Profenofos	-	mg/kg	0.010	< 50 %
Propachlor	-	mg/kg	0.010	< 50 %
Propaphos	-	mg/kg	0.010	< 50 %
Propaquizafop	-	mg/kg	0.010	< 50 %
Propargite	-	mg/kg	0.010	< 50 %
Propazine	-	mg/kg	0.010	< 50 %
Propham	-	mg/kg	0.010	< 50 %
Propiconazole	-	mg/kg	0.010	< 50 %
Propyzamide	-	mg/kg	0.010	< 50 %

Proquinazid	-	mg/kg	0.010	< 50 %
Prosulfocarb	-	mg/kg	0.010	< 50 %
Prothioconazole-Desthio (QN)	-	mg/kg	0.010	< 50 %
Pyraflufen-Ethyl	-	mg/kg	0.010	< 50 %
Pyrazophos	-	mg/kg	0.010	< 50 %
Pyridaben	-	mg/kg	0.010	< 50 %
Pyridaphenthion	-	mg/kg	0.010	< 50 %
Sulfotep Tedp	-	mg/kg	0.010	< 50 %
Quinalphos	-	mg/kg	0.010	< 50 %
Quinclorac	-	mg/kg	0.010	< 50 %
Chinomethionat (Quinomethionate)	-	mg/kg	0.010	< 50 %
Quizalofop-Ethyl	-	mg/kg	0.010	< 50 %
Sebuthylazine	-	mg/kg	0.010	< 50 %
Simazine	-	mg/kg	0.010	< 50 %
Spirodiclofen	-	mg/kg	0.010	< 50 %
Sulfosulfuron	-	mg/kg	0.010	< 50 %
Tebutam (Butam)	-	mg/kg	0.010	< 50 %
Terbufos	-	mg/kg	0.010	< 50 %
Terbuthylazine-Desethyl	-	mg/kg	0.010	< 50 %
Thiofanox	-	mg/kg	0.010	< 50 %
Thiofanox-Sulfone	-	mg/kg	0.010	< 50 %
Tolfenpyrad	-	mg/kg	0.010	< 50 %
Triazophos	-	mg/kg	0.010	< 50 %
Trietazine	-	mg/kg	0.010	< 50 %
Triflumizole	-	mg/kg	0.010	< 50 %
Triforine	-	mg/kg	0.010	< 50 %
Vinclozolin	-	mg/kg	0.010	< 50 %
Xmc	-	mg/kg	0.010	< 50 %
Thionazin (Zinophos)	-	mg/kg	0.010	< 50 %
Spirotetramat Metabolite, CIS ENOL	-	mg/kg	0.010	< 50 %
Spirotetramat Metabolite, ENOL GLUCOSIDE	-	mg/kg	0.010	< 50 %
Spirotetramat Metabolite, MONOHYDROXY	-	mg/kg	0.010	< 50 %
Acephate (Orthene)	-	mg/kg	0.010	< 50 %
Acetochlor	-	mg/kg	0.010	< 50 %
Aclonifen	-	mg/kg	0.010	< 50 %
Aldicarb	-	mg/kg	0.010	< 50 %
Alanycarb	-	mg/kg	0.010	< 50 %
Azinfós-Etil	-	mg/kg	0.010	< 50 %
Demeton (O+S) (Total)	-	mg/kg	0.010	< 50 %
Dimefuron	-	mg/kg	0.010	< 50 %
Ethoprophos	-	mg/kg	0.010	< 50 %
Fenazaflor	-	mg/kg	0.010	< 50 %
Fenthion-Sulfone	-	mg/kg	0.010	< 50 %
Fenvalerate	-	mg/kg	0.010	< 50 %

Flubendiamide	-	mg/kg	0.010	< 50 %
Imibenconazole	-	mg/kg	0.010	< 50 %
Phosmet	-	mg/kg	0.010	< 50 %
Isofenphos	-	mg/kg	0.010	< 50 %
Kresoxim-Methyl	-	mg/kg	0.010	< 50 %
Monuron	-	mg/kg	0.010	< 50 %
Orbencarb	-	mg/kg	0.010	< 50 %
Pirimifós-Metil	-	mg/kg	0.010	< 50 %
Propoxur	-	mg/kg	0.010	< 50 %
Secbumeton	-	mg/kg	0.010	< 50 %
Fluvalinate li (Tau-Fluvalinate)	-	mg/kg	0.010	< 50 %
Tebufenozide	-	mg/kg	0.010	< 50 %
Terbutylazine	-	mg/kg	0.010	< 50 %
Tetrachlorvinphos	-	mg/kg	0.010	< 50 %