

## Uncertainty of measurement for agrochemical residue analysis by LC/MS/MS and GCMS

### LM34/GM121 – Determination of agrochemical residues in wine, juice and liquid samples by LC/MC/MS.

The following compounds have an uncertainty of measurement (UM) of  $\pm 0.01$  mg/kg at levels at or below 0.05 mg/kg. UM of  $\pm 0.02$  mg/kg from 0.05 – 0.2 mg/kg and  $\pm 10\%$  at levels greater than 0.2 mg/kg:

Atrazine	Dimethomorph	Metrafenone	Trifloxystrobin
Azinphos methyl	Fenarimol	Myclobutanil	
Azoxystrobin	Fenhexamid	Oxadixyl	
Benalaxyl	Fenitrothion	Parathion-methyl	
Boscalid	Fenthion	Penconazole	
Buprofezin	Flusilazole	Procymidone	
Captan	Hexaconazole	Propiconazole	
Carbaryl	Indoxacarb	Pyrimethanil	
Carbendazim	Iprodione	Simazine	
Chlorantraniliprole	Malathion	Spiroxamine	
Chlorpyrifos-methyl	Mandipropamid	Tebuconazole	
Clothianidin	Metalaxyl	Tetraconazole	
Cyflufenamid	Methamidphos	Tebufenozide	
Diazinon	Methidathion	Triadimefon	
Dimethoate	Methoxyfenozide	Triadimenol	

The following compounds will have a UM of  $\pm 0.02$  mg/kg at levels at or below 0.05 mg/kg. UM of  $\pm 0.03$  mg/kg from 0.05 – 0.2 mg/kg and  $\pm 15\%$  at levels greater than 0.2 mg/kg:

Chlorpyrifos	Parathion methyl	THPI
Ethion	Prothiofos	Etoxazole
Fludioxonil	Pyraclostrobin	
Indoxacarb	Pyrimethanil	

Captan has a UM of  $\pm 0.04$  mg/kg at levels at or below 0.2 mg/kg and  $\pm 20\%$  at levels greater than 0.1 mg/kg:

### LM33/GM119 – Determination of agrochemical residues in fruits and vegetables by LC/MC/MS.

The following compounds have a UM of  $\pm 0.01$  mg/kg at levels at or below 0.05 mg/kg. UM of  $\pm 0.02$  mg/kg from 0.05 – 0.2 mg/kg and  $\pm 10\%$  at levels greater than 0.2 mg/kg:

Ametoctradin	Dimethoate	Methidathion	Spiroxamine
Atrazine	Dimethomorph	Methiocarb	Tebuconazole
Azinphos methyl	Emamectin*	Methomyl	Tetraconazole
Azoxystrobin	Fenarimol	Methoxyfenozide	Tebufenozide
Benalaxyl	Fenhexamid	Metrafenone	Triadimefon
Boscalid	Fenitrothion	Myclobutanil	Triadimenol
Buprofezin	Fenthion	Oxadixyl	Trifloxystrobin
Captan	Flusilazole	Parathion-methyl	
Carbaryl	Hexaconazole	Penconazole	
Carbendazim	Indoxacarb	Procymidone	
Chlorantraniliprole	Iprodione	Propiconazole	
Chlorpyrifos-methyl	Malathion	Proquinazid	
Clothianidin	Mandipropamid	Pyrimethanil	
Cyflufenamid	Metalaxyl	Simazine	
Diazinon	Methamidphos	Spinetoram	

The following compounds will have a UM of  $\pm 0.02$  mg/kg at levels at or below 0.05 mg/kg. UM of  $\pm 0.03$  mg/kg from 0.05 – 0.2 mg/kg and  $\pm 15\%$  at levels greater than 0.2 mg/kg:

Chlorpyrifos	Etoxazole	Fludioxonil	Spinosad
Cyprodinil	Fenamiphos	Pyraclostrobin	THPI
Ethion	Fenvalerate	Quinoxifen	

Captan has a UM of  $\pm 0.04$  mg/kg at levels at or below 0.2 mg/kg and  $\pm 20\%$  at levels greater than 0.1 mg/kg:

### LM20 – Determination of agrochemical residues in wine and juice by GCMS

Results that are greater than the detection limit but less than the reporting limit (see below) are reported as ‘trace’ to indicate that the compound has been positively identified but the quantity can not be confidently cited.

<b>Compound</b>	<b>Detection limit<sup>1</sup> (mg/L)</b>	<b>Reporting limit<sup>2</sup> (mg/L)</b>	<b>UM<sup>3</sup> (mg/L)</b>
atrazine	0.01	0.03	0.02
benalaxyl	0.01	0.04	0.03
chlorpyrifos	0.01	0.05	0.04
chlorpyrifos-methyl	0.01	0.05	0.04
diazinon	0.01	0.04	0.03
ethion	0.01	0.04	0.03
fenarimol	0.01	0.08	0.07
fenthion	0.01	0.04	0.03
metalaxyl	0.01	0.04	0.03
myclobutanil	0.01	0.05	0.04
oxadixyl	0.01	0.05	0.04
procymidone	0.01	0.04	0.03
propiconazole	0.01	0.06	0.05
simazine	0.01	0.03	0.02
triadimefon	0.01	0.03	0.02
vinclozolin	0.01	0.05	0.04
aziphos methyl	0.01	0.08	0.07
carbaryl	0.01	0.07	0.06
chlorothalonil	0.01	0.08	0.07
dicofol	0.01	0.06	0.05
flusilazole	0.01	0.05	0.04
fenitrothion	0.01	0.04	0.03
iprodione	0.01	0.07	0.06
malathion	0.01	0.03	0.02
parathion methyl	0.01	0.04	0.03
penconazole	0.01	0.04	0.03
triadimenol	0.01	0.06	0.05
captan	0.05	0.12	0.07
dimethoate	0.01	0.03	0.02
methidathion	0.01	0.03	0.02
prothiophos	0.01	0.04	0.03
tebuconazole	0.01	0.04	0.03
hexaconazole	0.01	0.04	0.03
quinoxifen	0.01	0.03	0.02
indoxacarb	0.01	0.03	0.02
dimethomorph	0.01	0.03	0.02
spiroxamine	0.01	0.03	0.02
tetraconazole	0.01	0.03	0.02
buprofezin	0.01	0.03	0.02