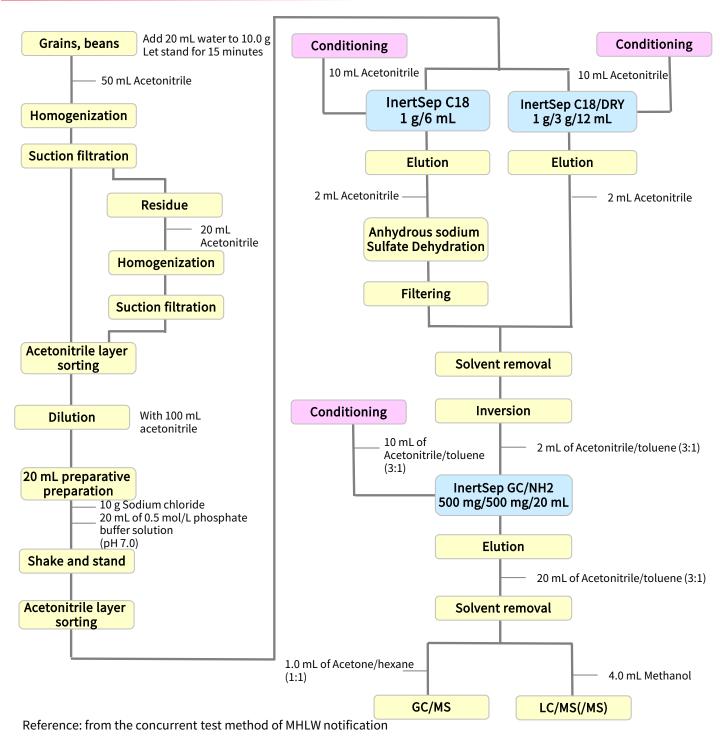
SPE Technical Note

ST012 GL Sciences Inc.

Simultaneous Analysis of Pesticides, etc. by GC/MS Simultaneous Analysis of Pesticides, etc. by LC/MS (crops: grains and legumes)

The Food Sanitation Law was amended in May 2003, and pesticides, etc. were regulated under a positive list system from May 2006. The introduction of this system has led to the use of several simultaneous multi-component testing methods to increase the efficiency of testing. This test method introduces the pretreatment of crops for residual pesticide analysis by GC/MS and LC/MS, which were included at the same time in the notification of the positive list system.

1. Flow diagram of solid phase pretreatment





2. Products for solid-phase extraction

[InertSep C18]



InertSep C18 is a minicolumn with non-polar interaction in which octadecyl groups are chemically bonded to silica gel. Residual silanol groups prevents cation exchange interactions, resulting in reduced adsorption of basic compounds.

It is suitable as a clean-up solid phase for removing lipids in the concurrent test method for residual pesticides.

Mean particle
size60 μmCarbon:19 %End-capping:YesSurface Area:450 m²/gPore volume:0.7 mL/gPore size:60 ÅPH range of
use:2 - 8

Syringe barrel type cartridge

| Product name | Column size | Qty. | Cat.No. |
|--------------|-------------|------------|------------|
| InertSep C18 | 1 g / 6 mL | 30 bottles | 5010-61005 |
| | 1 g / 12 mL | 20 bottles | 5010-61015 |
| | 1 g / 20 mL | 20 bottles | 5010-61014 |

1g/3g/12mL

InertSep DRY

[InertSep C18/DRY]

InertSep C18 DRY is a clean-up cartridge with two layers: delipidating C18 and dehydrating DRY. It is used for pretreatment of residual agricultural chemicals prior to analysis.

InertSep C18

| • | Maan nantiala | | |
|--|---|---------------------------------|------|
| Si-(CH ₂)17CH ₃ | Mean particle : 60 µm size : 19 % End-capping : Highly End-capp Surface Area : 450 m ² /g | Na ₂ SO ₄ |) |
| | Pore volume : 0.7 mL/g Pore size : 60 Å | | |
| | PH range of : 2 - 8 use Syringe barrel type cartri | idge | |
| | Product name | e Column size | Qty. |

InertSep C18/DRY

[InertSep GC/NH2]

Two layers of decolorizing GC and clean-up solid-phase NH2 and PSA providing purification that is not achievable using the GC phase alone.

InertSep GC InertSep NH2 size Maternal : Graphite Carbon : 10 % Mean particle : 120 - 400 mesh Carbon : 450 m²/g Surface Area Pore volume : 0.7 mL/g Si-(CH₂)3-NH₂ Surface Area : 85 m²/g Pore size : 60 A Pore capacity : 1.0 mL/g InertSep Ion exchange : 0.9 meq/g Pore size : 450 Å capacity PH range : 2-8 GC Syringe barrel type cartridge Product name Column size Otv. Cat.No. 500 mg / 500 mg / 6 mL 30 bottles 5010-68022 InertSep GC/NH2 500 mg / 500 mg / 20 mL 20 bottles 5010-68024 1g/1g/20mL 20 bottles 5010-68025

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