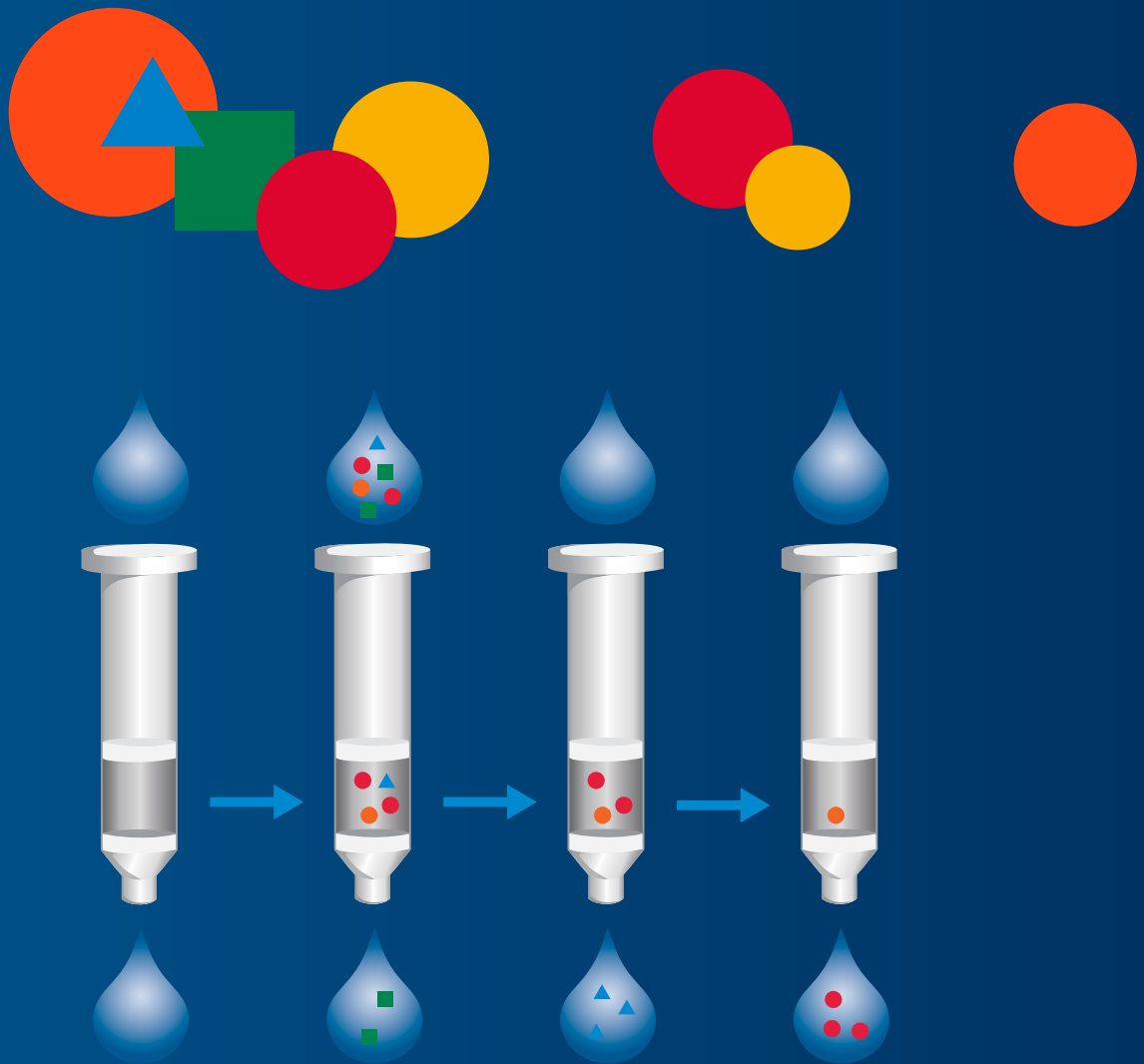




# Solid Phase Extraction Solutions



**FREE** Liquid Handling Software & SPE Cartridges

**DOWNLOAD** New SPE App-Notes Inside

**NEW** Manual SPE System

# Solid Phase Extraction (SPE)

## Reproducible Results, Increased Productivity

### NEW ASPEC® Positive Pressure Manifold (PPM) – Making your Lab Life Easier



The ASPEC PPM is a cost-effective manual Positive Pressure Manifold for clinical, forensic, food and beverage testing laboratories. It is also an ideal choice for 96 well plate SPE cleanup prior to LC-MS for bioanalysis.

- **Easy to set-up and use**
- **Reproducible extractions:** Positive pressure fine regulators improve flow control, and reproducibility
- **Parallel extractions:** Increase daily throughput by accelerating sample cleanup and reducing time spent in front of the instrument
- **For 1, 3, and 6 mL cartridges and plates**

**FREE PACK OF CARTRIDGES OR A 96 WELL PLATE\***

OFFER CODE : **CP0375**

**FOR MORE INFORMATION**

Email: [info@gilsonuk.com](mailto:info@gilsonuk.com) or Call: 0845 5196 872 to arrange a quote or demo.

### GX-241 ASPEC™ – For Those With Limited Bench Space

Occupying less than 40 cm of linear bench space, Gilson's smallest automated SPE and liquid handling system is ideally suited for facilities where bench space or budget is limited. The GX-241 ASPEC System offers all standard features of the larger ASPEC systems in a single-probe, compact configuration designed for lower-throughput applications.

- One rack for samples and one rack for cartridges
- Syringe pump precisely dispenses 1  $\mu$ L - 25 mL
- Compatible with test tubes and vials
- On-bed access to six 100 mL solvent reservoirs
- Accommodates 1, 3, and 6 mL SPE cartridges



## GX-271 ASPEC™ – Flexible SPE that can be integrated with HPLC, in one convenient package.



Designed for unattended runs with safety in mind, the GX-271 ASPEC™ has a large cartridge capacity while minimising bench space footprint.

- Up to 108 samples run unattended
- Operate in both batch and sequential mode to optimise throughput
- Optional GX Direct Injection Module for performing on-line injections onto HPLC or LC/MS systems
- Real time SPE pressure monitored
- New jet wash rinse station to minimize carry-over risks
- Eluted product can be fractionated by moving to different collection tubes for applications such as buffer or pH step gradients
- Ideal choice for SPE, sample prep, sample clean up and GPC / SPE applications

## GX-274 ASPEC™ – All of the advantages of the single probe unit, but 4 times faster

Maximize efficiency and throughput with the unattended, parallel solid phase extraction processing of samples via Gilson's GX-274 ASPEC™.

- Analyse four samples in parallel in one single step
- Transfer ports and large volume reservoirs allow access to six solvents without taking up any on bed rack positions
- Extend this capability through the use of a VALVEMATE® II.
- Modular design
- Eluted product can be fractionated by moving to different collection tubes
- Collected fractions can be transferred to closed vials
- Enables use as SPE instrument as well as a Liquid Handling instrument



## FREE LIQUID HANDLING SOFTWARE & CARTRIDGES

Get Gilson's revolutionary **Trilution LH Software** (worth £5,000/€6,000) and **a box of SPE cartridges** of your choice **FREE** when you purchase any automated SPE system.

Contact us for a quote by emailing [info@gilsonuk.com](mailto:info@gilsonuk.com)



Offer valid until 31st March 2019.

# Gilson SPE Cartridges

For convenience and reliability

The Gilson range of SPE instrumentation is complemented by a full range of SPE Cartridges. Tested with either our manual or automated devices, you can be assured of unprecedented performance. Reproducible separation, high loading capacity and accurate elution properties, allows for reliable analysis.

Choose capped or uncapped cartridges in a range of volumes, masses, phases and formats:

- 1mL, 3mL, 6mL cartridges and 96 well plates
- 50mg, 100mg, 200mg, 500mg and 1g masses
- Silica or polymer phases including C<sub>4</sub>, C<sub>8</sub>, C<sub>18</sub>, SAX, SCX, WAX, WCX, HLB, DVB and many more
- Available pre-capped for GX automation ready



**TRY OUR SPE CARTRIDGES FOR FREE**

**Are your current cartridges not performing consistently?**

**Is your price per sample spiralling out of control?**

**Try the ASPEC cartridges for yourself**

**FREE** samples available. Simply email us and we will help you select the right cartridge for your application.

Email: [info@gilsonuk.com](mailto:info@gilsonuk.com)

# Gilson SPE Application Notes

## GX-274 ASPEC: Automated Extraction of Glucocorticoid and Nonsteroidal Anti-Inflammatory Drugs from Horse Urine

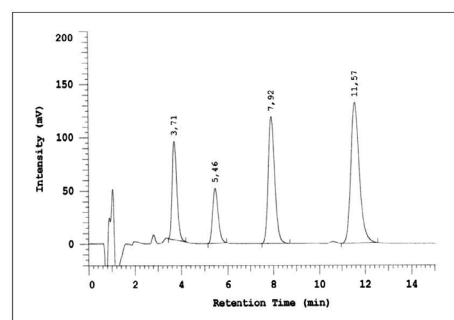


Kits from Recipe and Chromsystems have been automated using the Gilson ASPEC GX-271/4. The data presented is from Recipe.

### BENEFITS:

- Saves time and frees up operators for more important tasks
- Data is more reproducible
- Automated sample injection onto HPLC
- Higher recoveries

Example Chromatogram of Prepared Urine Calibrator (Recipe Order No.: 3013)



Retention Times:  
 VMA: 3.71 minutes  
 Internal Standard: 5.46 minutes  
 HVA: 7.92 minutes  
 5-HIAA: 11.57 minutes

Download the full application note at [go.gilson.com/SPEVMA](http://go.gilson.com/SPEVMA)

## An Automated Method for the Fractionation of Total Petroleum Hydrocarbons (TPH) from Water and Soil Extracts Using the Gilson GX-274 ASPEC System



This paper describes the automation of the separation and analysis of Aliphatic and Aromatic petroleum hydrocarbons from soil and water samples using the Gilson GX-274 ASPEC.

### BENEFITS:

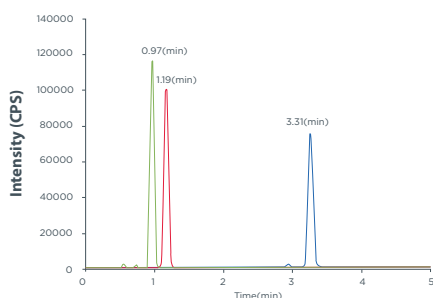
- Enhanced recoveries
- Fully automated process
- Reduced solvent consumption when compared to the manual method

TPH Fractionation Check Standard Results

| Analyte                | True Value (µg/mL) | STD Conc. (µg/mL) | % Recovery | Spike Limits |
|------------------------|--------------------|-------------------|------------|--------------|
| Napthalene             | 25.00              | 22.290            | 89         | 40-140       |
| 2-Methylnapthalene     | 25.00              | 22.529            | 90         | 40-140       |
| Acenaphthylene         | 25.00              | 24.126            | 97         | 40-140       |
| Acenaphthene           | 25.00              | 23.156            | 93         | 40-140       |
| Fluorene               | 25.00              | 23.135            | 94         | 40-140       |
| Phenanthrene           | 25.00              | 22.689            | 91         | 40-140       |
| Anthracene             | 25.00              | 24.041            | 96         | 40-140       |
| Fluoroanthene          | 25.00              | 22.650            | 91         | 40-140       |
| Pyrene                 | 25.00              | 22.873            | 91         | 40-140       |
| Benzo(a)anthracene     | 25.00              | 23.470            | 94         | 40-140       |
| Chrysene               | 25.00              | 24.218            | 97         | 40-140       |
| Benzo(b)fluoranthene   | 25.00              | 24.157            | 97         | 40-140       |
| Benzo(k)fluoranthene   | 25.00              | 22.468            | 90         | 40-140       |
| Benzo(a)pyrene         | 25.00              | 21.509            | 86         | 40-140       |
| Indeno(1,2,3-cd)pyrene | 25.00              | 22.484            | 90         | 40-140       |
| Dibenzo(a,h)anthracene | 25.00              | 22.699            | 91         | 40-140       |
| Benzo(g,h,i)perylene   | 25.00              | 22.121            | 88         | 40-140       |
| C9                     | 25.00              | 28.542            | 114        | 40-140       |
| C10                    | 25.00              | 26.110            | 104        | 40-140       |
| C12                    | 25.00              | 24.054            | 96         | 40-140       |
| C14                    | 25.00              | 23.863            | 95         | 40-140       |
| C16                    | 25.00              | 23.528            | 94         | 40-140       |
| C18                    | 25.00              | 22.858            | 91         | 40-140       |
| C19                    | 25.00              | 24.286            | 97         | 40-140       |
| C20                    | 25.00              | 24.364            | 97         | 40-140       |
| C22                    | 25.00              | 23.476            | 94         | 40-140       |
| C24                    | 25.00              | 22.567            | 90         | 40-140       |
| C26                    | 25.00              | 25.495            | 102        | 40-140       |
| C28                    | 25.00              | 24.191            | 97         | 40-140       |
| C30                    | 25.00              | 22.953            | 92         | 40-140       |
| C36                    | 25.00              | 26.394            | 106        | 40-140       |

Download the full application note at [go.gilson.com/SPETPH](http://go.gilson.com/SPETPH)

## ASPEC Positive Pressure Manifold and Cartridges: Analysis of $\Delta^9$ -tetrahydrocannabinol in plasma using SPE (solid phase extraction) prior to LCMS/MS detection



— Dansylated  $\Delta^9$ -Tetrahydrocannabinol  
— Dansylated 11-nor-9-Carboxy- $\Delta^9$ -Tetrahydrocannabinol  
— Dansylated 11-nor-9-Hydroxy- $\Delta^9$ -Tetrahydrocannabinol

This application presents the use of the Gilson ASPEC Positive Pressure Manifold with C<sub>18</sub> Cartridges for this new method for the determination of  $\Delta^9$ -tetrahydrocannabinol and its metabolites in human plasma using LC-MS/MS.

### BENEFITS:

- Rapid method
- Good sensitivity and selectivity of THC
- High recoveries
- Excellent reproducibility



Download the full application note at [go.gilson.com/ASPECTHC](http://go.gilson.com/ASPECTHC)

## Large Volume GX-274 ASPEC: Determination of Nitrosamines in Drinking Water



This technical note describes a method for automating US EPA Method 521 using the Gilson ASPEC® 274 Large Volume System.

### BENEFITS:

- High extraction reproducibility
- Precise volume management
- Sample volumes up to 500mL
- Load ALL of your sample, regardless of volume



Download the full application note at [go.gilson.com/SPEnitrosamine](http://go.gilson.com/SPEnitrosamine)

## GX-271 ASPEC System: Determination of Glyphosate and AMPA



GX-271 Liquid Handler paired with a VERITY® 4260 Dual Syringe Pump and Orbital Shaker

This technical note demonstrates the full automation of Method NF ISO 21458: “Water quality — Determination of glyphosate and AMPA — Method using high performance liquid chromatography (HPLC) and fluorometric detection” on the ASPEC 271.

### BENEFITS:

- Fully automated method
- Up to 35 samples processed unattended
- Efficient and reproducible extraction and derivatization
- Predefined methods for quick installation with minimal training



Download the full application note at [go.gilson.com/SPEglyphosphate](http://go.gilson.com/SPEglyphosphate)

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